



**EDB Information Disclosure Requirements  
Information Templates  
for  
Schedules 1–10**

<b>Company Name</b>	Vector
<b>Disclosure Date</b>	30 August 2021
<b>Disclosure Year (year ended)</b>	31 March 2021

Templates for Schedules 1–10 excluding 5f–5g  
Template Version 4.1. Prepared 21 December 2017

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### **Disclosure Template Instructions**

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

#### ***Company Name and Dates***

To prepare the templates for disclosure, the supplier's company name should be entered in cell C8, the date of the last day of the current (disclosure) year should be entered in cell C12, and the date on which the information is disclosed should be entered in cell C10 of the CoverSheet worksheet.

The cell C12 entry (current year) is used to calculate disclosure years in the column headings that show above some of the tables and in labels adjacent to some entry cells. It is also used to calculate the 'For year ended' date in the template title blocks (the title blocks are the light green shaded areas at the top of each template).

The cell C8 entry (company name) is used in the template title blocks.

Dates should be entered in day/month/year order (Example -"1 April 2013").

#### ***Data Entry Cells and Calculated Cells***

Data entered into this workbook may be entered only into the data entry cells. Data entry cells are the bordered, unshaded areas (white cells) in each template. Under no circumstances should data be entered into the workbook outside a data entry cell.

In some cases, where the information for disclosure is able to be ascertained from disclosures elsewhere in the workbook, such information is disclosed in a calculated cell.

#### ***Validation Settings on Data Entry Cells***

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

#### ***Conditional Formatting Settings on Data Entry Cells***

Schedule 2 cells G79 and I79:L79 will change colour if the total cashflows do not equal the corresponding values in table 2(ii).

Schedule 4 cells P99:P105 and P107 will change colour if the RAB values do not equal the corresponding values in table 4(ii).

Schedule 9b columns AA to AE (2013 to 2017) contain conditional formatting. The data entry cells for future years are hidden (are changed from white to yellow).

Schedule 9b cells AG10 to AG60 will change colour if the total assets at year end for each asset class does not equal the corresponding values in column I in Schedule 9a.

Schedule 9c cell G30 will change colour if G30 (overhead circuit length by terrain) does not equal G18 (overhead circuit length by operating voltage).

#### ***Inserting Additional Rows and Columns***

The templates for schedules 4, 5b, 5c, 5d, 5e, 6a, 8, 9d, and 9e may require additional rows to be inserted in tables marked 'include additional rows if needed' or similar. Column A schedule references should not be entered in additional rows, and should be deleted from additional rows that are created by copying and pasting rows that have schedule references.

Additional rows in schedules 5c, 6a, and 9e must not be inserted directly above the first row or below the last row of a table. This is to ensure that entries made in the new row are included in the totals.

Schedules 5d and 5e may require new cost or asset category rows to be inserted in allocation change tables 5d(iii) and 5e(ii). Accordingly, cell protection has been removed from rows 77 and 78 of the respective templates to allow blocks of rows to be copied. The four steps to add new cost category rows to table 5d(iii) are: Select Excel rows 69:77, copy, select Excel row 78, insert copied cells. Similarly, for table 5e(ii): Select Excel rows 70:78, copy, select Excel row 79, then insert copied cells.

The template for schedule 8 may require additional columns to be inserted between column P and U. To avoid interfering with the title block entries, these should be inserted to the left of column S. If inserting additional columns, the formulas for standard consumers total, non-standard consumers totals and total for all consumers will need to be copied into the cells of the added columns. The formulas can be found in the equivalent cells of the existing columns.

### ***Disclosures by Sub-Network***

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

### ***Schedule References***

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

### ***Description of Calculation References***

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

### ***Worksheet Completion Sequence***

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

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

Company Name **Vector**  
For Year Ended **31 March 2021**

**SCHEDULE 1: ANALYTICAL RATIOS**

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

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

sch ref

**1(i): Expenditure metrics**

	Expenditure per GWh energy delivered to ICPs (\$/GWh)	Expenditure per average no. of ICPs (\$/ICP)	Expenditure per MW maximum coincident system demand (\$/MW)	Expenditure per km circuit length (\$/km)	Expenditure per MVA of capacity from EDB-owned distribution transformers (\$/MVA)
<b>Operational expenditure</b>	15,494	218	73,527	6,644	27,168
Network	5,975	84	28,357	2,563	10,478
Non-network	9,518	134	45,171	4,082	16,691
<b>Expenditure on assets</b>	36,114	508	171,383	15,487	63,326
Network	33,202	467	157,563	14,239	58,220
Non-network	2,912	41	13,820	1,249	5,106

**1(ii): Revenue metrics**

	Revenue per GWh energy delivered to ICPs (\$/GWh)	Revenue per average no. of ICPs (\$/ICP)
<b>Total consumer line charge revenue</b>	68,275	961
Standard consumer line charge revenue	71,079	929
Non-standard consumer line charge revenue	31,844	602,742

**1(iii): Service intensity measures**

Demand density	90	Maximum coincident system demand per km of circuit length (for supply) (kW/km)
Volume density	429	Total energy delivered to ICPs per km of circuit length (for supply) (MWh/km)
Connection point density	30	Average number of ICPs per km of circuit length (for supply) (ICPs/km)
Energy intensity	14,071	Total energy delivered to ICPs per average number of ICPs (kWh/ICP)

**1(iv): Composition of regulatory income**

	(\$000)	% of revenue
Operational expenditure	127,202	23.19%
Pass-through and recoverable costs excluding financial incentives and wash-ups	191,320	34.88%
Total depreciation	129,773	23.66%
Total revaluations	53,983	9.84%
Regulatory tax allowance	29,632	5.40%
Regulatory profit/(loss) including financial incentives and wash-ups	120,457	21.96%
<b>Total regulatory income</b>	<b>548,582</b>	

**1(v): Reliability**

Interruption rate	15.72	Interruptions per 100 circuit km
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Company Name	Vector
For Year Ended	31 March 2021

**SCHEDULE 2: REPORT ON RETURN ON INVESTMENT**

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

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

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

sch ref

	CY-2 31 Mar 19 %	CY-1 31 Mar 20 %	Current Year CY 31 Mar 21 %
<b>2(i): Return on Investment</b>			
<b>ROI – comparable to a post tax WACC</b>			
Reflecting all revenue earned	5.23%	5.01%	3.10%
Excluding revenue earned from financial incentives	5.34%	5.11%	3.16%
Excluding revenue earned from financial incentives and wash-ups	5.41%	5.18%	3.16%
<b>Mid-point estimate of post tax WACC</b>	4.75%	4.27%	3.72%
25th percentile estimate	4.07%	3.59%	3.04%
75th percentile estimate	5.43%	4.95%	4.40%
<b>ROI – comparable to a vanilla WACC</b>			
Reflecting all revenue earned	5.74%	5.44%	3.43%
Excluding revenue earned from financial incentives	5.85%	5.54%	3.49%
Excluding revenue earned from financial incentives and wash-ups	5.92%	5.60%	3.49%
<b>WACC rate used to set regulatory price path</b>	7.19%	7.19%	4.57%
<b>Mid-point estimate of vanilla WACC</b>	5.26%	4.69%	4.05%
25th percentile estimate	4.58%	4.01%	3.37%
75th percentile estimate	5.94%	5.37%	4.73%
<b>2(ii): Information Supporting the ROI</b>			
			(\$000)
Total opening RAB value	3,564,758		
plus Opening deferred tax	(104,030)		
<b>Opening RIV</b>		3,460,728	
<b>Line charge revenue</b>		560,533	
Expenses cash outflow	318,522		
add Assets commissioned	215,214		
less Asset disposals	15,585		
add Tax payments	19,941		
less Other regulated income	(11,951)		
<b>Mid-year net cash outflows</b>		550,043	
<b>Term credit spread differential allowance</b>		4,181	
Total closing RAB value	3,689,337		
less Adjustment resulting from asset allocation	740		
less Lost and found assets adjustment	–		
plus Closing deferred tax	(113,721)		
<b>Closing RIV</b>		3,574,876	
<b>ROI – comparable to a vanilla WACC</b>			3.43%
Leverage (%)			42%
Cost of debt assumption (%)			2.82%
Corporate tax rate (%)			28%
<b>ROI – comparable to a post tax WACC</b>			3.10%



Company Name **Vector**  
 For Year Ended **31 March 2021**

**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).

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

sch ref

**2(iii): Information Supporting the Monthly ROI**

61									
62									
63	Opening RIV								N/A
64									
65									
66		Line charge revenue	Expenses cash outflow	Assets commissioned	Asset disposals	Other regulated income		Monthly net cash outflows	
67	April								-
68	May								-
69	June								-
70	July								-
71	August								-
72	September								-
73	October								-
74	November								-
75	December								-
76	January								-
77	February								-
78	March								-
79	<b>Total</b>	-	-	-	-	-	-	-	-
80									
81	Tax payments								N/A
82									
83	Term credit spread differential allowance								N/A
84									
85	Closing RIV								N/A
86									
87									
88	Monthly ROI – comparable to a vanilla WACC								N/A
89									
90	Monthly ROI – comparable to a post tax WACC								N/A
91									

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

92			
93			
94	Year-end ROI – comparable to a vanilla WACC		3.45%
95			
96	Year-end ROI – comparable to a post tax WACC		3.12%
97			
98	* these year-end ROI values are comparable to the ROI reported in pre 2012 disclosures by EDBs and do not represent the Commission's current view on ROI.		
99			

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

101			
102	Net recoverable costs allowed under incremental rolling incentive scheme		-
103	Purchased assets – avoided transmission charge		-
104	Energy efficiency and demand incentive allowance		-
105	Quality incentive adjustment	(4,449)	
106	Other financial incentives	1,725	
107	<b>Financial incentives</b>		(2,724)
108			
109	<b>Impact of financial incentives on ROI</b>		-0.06%
110			
111	Input methodology claw-back		-
112	CPP application recoverable costs		-
113	Catastrophic event allowance		-
114	Capex wash-up adjustment		-
115	Transmission asset wash-up adjustment		-
116	2013–15 NPV wash-up allowance		-
117	Reconsideration event allowance		-
118	Other wash-ups		-
119	<b>Wash-up costs</b>		-
120			
121	<b>Impact of wash-up costs on ROI</b>		-



Company Name **Vector**  
 For Year Ended **31 March 2021**

**SCHEDULE 3: REPORT ON REGULATORY PROFIT**

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

sch ref

3(i): Regulatory Profit		(\$000)	
7	<b>Income</b>		
8	Line charge revenue	560,533	
9	plus Gains / (losses) on asset disposals	(11,951)	
10	plus Other regulated income (other than gains / (losses) on asset disposals)	-	
11			
12	<b>Total regulatory income</b>	548,582	
13	<b>Expenses</b>		
14	less Operational expenditure	127,202	
15	less Pass-through and recoverable costs excluding financial incentives and wash-ups	191,320	
16			
17	<b>Operating surplus / (deficit)</b>	230,060	
18	less Total depreciation	129,773	
19	plus Total revaluations	53,983	
20			
21	<b>Regulatory profit / (loss) before tax</b>	154,270	
22	less Term credit spread differential allowance	4,181	
23	less Regulatory tax allowance	29,632	
24			
25	<b>Regulatory profit/(loss) including financial incentives and wash-ups</b>	120,457	
26			
27			
28			
29			
30			
31			
32			
33	<b>3(ii): Pass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups</b>	(\$000)	
34	<b>Pass through costs</b>		
35	Rates	8,093	
36	Commerce Act levies	1,203	
37	Industry levies	2,046	
38	CPP specified pass through costs	-	
39	<b>Recoverable costs excluding financial incentives and wash-ups</b>		
40	Electricity lines service charge payable to Transpower	170,812	
41	Transpower new investment contract charges	7,632	
42	System operator services	-	
43	Distributed generation allowance	977	
44	Extended reserves allowance	-	
45	Other recoverable costs excluding financial incentives and wash-ups	557	
46	<b>Pass-through and recoverable costs excluding financial incentives and wash-ups</b>	191,320	
47			
48	<b>3(iii): Incremental Rolling Incentive Scheme</b>	(\$000)	
49			
50			
51	Allowed controllable opex	-	-
52	Actual controllable opex	-	-
53			
54	Incremental change in year		-
55			
56			
57			
58			
59			
60			
61			
62	<b>Net incremental rolling incentive scheme</b>		-
63			
64	<b>Net recoverable costs allowed under incremental rolling incentive scheme</b>		-
65	<b>3(iv): Merger and Acquisition Expenditure</b>		
66	Merger and acquisition expenditure		-
67			
68	<i>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)</i>		
69	<b>3(v): Other Disclosures</b>		
70	Self-insurance allowance		-
71			





Company Name **Vector**  
 For Year Ended **31 March 2021**

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

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

sch ref

4(i): Regulatory Asset Base Value (Rolled Forward)		for year ended				
		RAB 31 Mar 17 (\$000)	RAB 31 Mar 18 (\$000)	RAB 31 Mar 19 (\$000)	RAB 31 Mar 20 (\$000)	RAB 31 Mar 21 (\$000)
Total opening RAB value		2,682,398	2,879,136	2,951,716	3,075,471	3,564,758
less Total depreciation		96,289	108,316	108,729	113,475	129,773
plus Total revaluations		57,761	31,561	44,091	70,964	53,983
plus Assets commissioned		249,121	156,888	203,460	815,133	215,214
less Asset disposals		15,951	7,540	7,412	282,541	15,585
plus Lost and found assets adjustment		-	-	-	-	-
plus Adjustment resulting from asset allocation		2,095	(13)	(7,655)	(794)	740
<b>Total closing RAB value</b>		<b>2,879,136</b>	<b>2,951,716</b>	<b>3,075,471</b>	<b>3,564,758</b>	<b>3,689,337</b>

4(ii): Unallocated Regulatory Asset Base		Unallocated RAB *		RAB	
		(\$000)	(\$000)	(\$000)	(\$000)
Total opening RAB value			3,586,400		3,564,758
less Total depreciation			134,543		129,773
plus Total revaluations			54,300		53,983
plus Assets commissioned (other than below)		208,791		207,200	
Assets acquired from a regulated supplier		-		-	
Assets acquired from a related party		8,014		8,014	
Assets commissioned			216,805		215,214
less Asset disposals (other than below)		12,895		12,198	
Asset disposals to a regulated supplier		-		-	
Asset disposals to a related party		3,387		3,387	
Asset disposals			16,282		15,585
plus Lost and found assets adjustment			-		-
plus Adjustment resulting from asset allocation					740
<b>Total closing RAB value</b>			<b>3,706,680</b>		<b>3,689,337</b>

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

4(iii): Calculation of Revaluation Rate and Revaluation of Assets		Unallocated RAB *		RAB	
		(\$000)	(\$000)	(\$000)	(\$000)
Total opening RAB value			3,586,400		3,564,758
less Opening value of fully depreciated, disposed and lost assets			17,878		17,060
Total opening RAB value subject to revaluation			3,568,522		3,547,698
plus Total revaluations			54,300		53,983

4(iv): Roll Forward of Works Under Construction		Unallocated works under construction		Allocated works under construction	
Works under construction—preceding disclosure year			37,855		37,398
plus Capital expenditure		210,000		209,069	
less Assets commissioned		216,805		215,214	
less Adjustment resulting from asset allocation				394	
Works under construction - current disclosure year			31,050		30,859
Highest rate of capitalised finance applied					4.30%

4(v): Regulatory Depreciation		Unallocated RAB *		RAB	
		(\$000)	(\$000)	(\$000)	(\$000)
Depreciation - standard		85,971		85,971	
Depreciation - no standard life assets		48,572		43,802	
Depreciation - modified life assets		-		-	
Depreciation - alternative depreciation in accordance with CPP		-		-	
<b>Total depreciation</b>			<b>134,543</b>		<b>129,773</b>

4(vi): Disclosure of Changes to Depreciation Profiles		(\$000 unless otherwise specified)		
Asset or assets with changes to depreciation*	Reason for non-standard depreciation (text entry)	Depreciation charge for the period (RAB)	Closing RAB value under 'non-standard' depreciation	Closing RAB value under 'standard' depreciation

\* Include additional rows if needed

4(vii): Disclosure by Asset Category		(\$000 unless otherwise specified)									
		Subtransmission lines	Subtransmission cables	Zone substations	Distribution and LV lines	Distribution and LV cables	Distribution substations and transformers	Distribution switchgear	Other network assets	Non-network assets	Total
Total opening RAB value		74,476	521,085	295,762	379,309	807,938	293,756	244,277	888,296	59,859	3,564,758
less Total depreciation		2,055	13,266	11,478	11,018	27,398	10,054	10,088	28,270	16,149	129,773
plus Total revaluations		1,133	7,923	4,469	5,773	12,275	4,457	3,660	13,377	916	53,983
plus Assets commissioned		101	4,572	29,061	38,846	18,038	10,485	43,189	50,341	20,581	215,214
less Asset disposals		84	64	1,790	2,107	2,004	573	3,540	3,680	1,743	15,585
plus Lost and found assets adjustment		-	-	-	-	-	-	-	-	-	-
plus Adjustment resulting from asset allocation		-	-	-	-	-	-	-	-	740	740
plus Asset category transfers		-	-	-	-	-	-	-	-	-	-
<b>Total closing RAB value</b>		<b>73,571</b>	<b>520,253</b>	<b>316,024</b>	<b>410,803</b>	<b>808,849</b>	<b>298,071</b>	<b>277,498</b>	<b>920,064</b>	<b>64,204</b>	<b>3,689,337</b>
Asset Life											
Weighted average remaining asset life		41	56	31	43	36	34	28	44	12	(years)



Company Name **Vector**  
 For Year Ended **31 March 2021**

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

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

<i>sch ref</i>	Weighted average expected total asset life	59	71	42	58	60	45	36	51	15	(years)
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Company Name **Vector**  
 For Year Ended **31 March 2021**

**SCHEDULE 5a: REPORT ON REGULATORY TAX ALLOWANCE**

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

sch ref

		(\$000)	
7	<b>5a(i): Regulatory Tax Allowance</b>		
8	<b>Regulatory profit / (loss) before tax</b>		154,270
9			
10	<i>plus</i> Income not included in regulatory profit / (loss) before tax but taxable	-	*
11	Expenditure or loss in regulatory profit / (loss) before tax but not deductible	9,213	*
12	Amortisation of initial differences in asset values	32,020	
13	Amortisation of revaluations	11,095	
14			52,328
15			
16	<i>less</i> Total revaluations	53,983	
17	Income included in regulatory profit / (loss) before tax but not taxable	-	*
18	Discretionary discounts and customer rebates	-	
19	Expenditure or loss deductible but not in regulatory profit / (loss) before tax	2,241	*
20	Notional deductible interest	44,546	
21			100,770
22			
23	<b>Regulatory taxable income</b>		105,828
24			
25	<i>less</i> Utilised tax losses	-	
26	Regulatory net taxable income		105,828
27			
28	Corporate tax rate (%)	28%	
29	<b>Regulatory tax allowance</b>		29,632

\* Workings to be provided in Schedule 14

**5a(ii): Disclosure of Permanent Differences**

In Schedule 14, Box 5, provide descriptions and workings of items recorded in the asterisked categories in Schedule 5a(i).

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

(\$000)

36	Opening unamortised initial differences in asset values	928,570	
37	<i>less</i> Amortisation of initial differences in asset values	32,020	
38	<i>plus</i> Adjustment for unamortised initial differences in assets acquired	-	
39	<i>less</i> Adjustment for unamortised initial differences in assets disposed	7,349	
40	Closing unamortised initial differences in asset values		889,201
41			
42	Opening weighted average remaining useful life of relevant assets (years)		29
43			



Company Name **Vector**  
 For Year Ended **31 March 2021**

### SCHEDULE 5a: REPORT ON REGULATORY TAX ALLOWANCE

This schedule requires information on the calculation of the regulatory tax allowance. This information is used to calculate regulatory profit/loss in Schedule 3 (regulatory profit). EDBs must provide explanatory commentary on the information disclosed in this schedule, in Schedule 14 (Mandatory Explanatory Notes).

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

sch ref

		(\$000)
44	<b>5a(iv): Amortisation of Revaluations</b>	
45		
46	Opening sum of RAB values without revaluations	3,248,864
47		
48	Adjusted depreciation	118,678
49	Total depreciation	129,773
50	Amortisation of revaluations	11,095
51		
52	<b>5a(v): Reconciliation of Tax Losses</b>	(\$000)
53		
54	<b>Opening tax losses</b>	
55	plus Current period tax losses	
56	less Utilised tax losses	
57	<b>Closing tax losses</b>	-
58	<b>5a(vi): Calculation of Deferred Tax Balance</b>	(\$000)
59		
60	<b>Opening deferred tax</b>	(104,030)
61		
62	plus Tax effect of adjusted depreciation	33,230
63		
64	less Tax effect of tax depreciation	36,026
65		
66	plus Tax effect of other temporary differences*	1,869
67		
68	less Tax effect of amortisation of initial differences in asset values	8,966
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	561
73		
74	plus Deferred tax cost allocation adjustment	763
75		
76	<b>Closing deferred tax</b>	(113,721)
77		
78	<b>5a(vii): Disclosure of Temporary Differences</b>	
79	<i>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).</i>	
80		
81	<b>5a(viii): Regulatory Tax Asset Base Roll-Forward</b>	
82		(\$000)
83	<b>Opening sum of regulatory tax asset values</b>	1,259,310
84	less Tax depreciation	128,666
85	plus Regulatory tax asset value of assets commissioned	219,279
86	less Regulatory tax asset value of asset disposals	4,989
87	plus Lost and found assets adjustment	-
88	plus Adjustment resulting from asset allocation	3,466
89	plus Other adjustments to the RAB tax value	-
90	<b>Closing sum of regulatory tax asset values</b>	1,348,400



Company Name **Vector**  
 For Year Ended **31 March 2021**

**SCHEDULE 5b: REPORT ON RELATED PARTY TRANSACTIONS**

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

sch ref

		(\$000)	(\$000)
7	<b>5b(i): Summary—Related Party Transactions</b>		
8	<b>Total regulatory income</b>		–
9			
10	<b>Market value of asset disposals</b>		–
11			
12	Service interruptions and emergencies	–	
13	Vegetation management	7,193	
14	Routine and corrective maintenance and inspection	–	
15	Asset replacement and renewal (opex)	–	
16	<b>Network opex</b>		<b>7,193</b>
17	Business support	–	
18	System operations and network support	10,776	
19	<b>Operational expenditure</b>		<b>17,969</b>
20	Consumer connection	–	
21	System growth	5,068	
22	Asset replacement and renewal (capex)	714	
23	Asset relocations	–	
24	Quality of supply	–	
25	Legislative and regulatory	–	
26	Other reliability, safety and environment	252	
27	<b>Expenditure on non-network assets</b>		<b>129</b>
28	<b>Expenditure on assets</b>		<b>6,163</b>
29	Cost of financing		38
30	Value of capital contributions		–
31	Value of vested assets		–
32	<b>Capital Expenditure</b>		<b>6,201</b>
33	<b>Total expenditure</b>		<b>24,170</b>
34			
35	<b>Other related party transactions</b>		–

			Total value of transactions (\$000)
36	<b>5b(iii): Total Opex and Capex Related Party Transactions</b>		
37	<b>Name of related party</b>	<b>Nature of opex or capex service provided</b>	
38			
39			
40	PowerSmart NZ Limited	Other reliability, safety and environment	157
41	PowerSmart NZ Limited	System growth	81
42	Vector Communications Limited	Asset replacement and renewal (capex)	338
43	Vector Communications Limited	System growth	27
44	Vector Communications Limited	Other reliability, safety and environment	79
45	Vector Communications Limited	System operations and network support	4,029
46	Tree Scape Limited	Vegetation management	7,193
47	Tree Scape Limited	Asset replacement and renewal (capex)	376
48	Tree Scape Limited	Other reliability, safety and environment	16
49	Cristal Air International Limited	Expenditure on non-network assets	129
50	Vector Auckland Property Limited	System growth	1,415
51	Vector Northern Property Limited	System growth	3,545
52	Vector Technology Services Limited	System operations and network support	6,747
53	<b>Total value of related party transactions</b>		<b>24,132</b>

In accordance with clause 2.3.8(1) and (2) of the ID determination, a description showing the connection between Vector and the related parties with which it has had related party transactions in the disclosure year and the principal activities of the related party is disclosed below:

Related party	Relationship	Principal activities	Amount (\$000) excluded cost of financing
Vector communications limited	a wholly owned subsidiary of Vector limited	Network communications and SCADA services	4,473
Tree Scape limited	an associate in which Vector limited holds a 50% interest	Vegetation management services	7,585
PowerSmart NZ limited	a wholly owned subsidiary of Vector limited	Energy solutions services	238
Cristal Air International limited	a wholly owned subsidiary of Vector limited	Energy solutions services	129
Vector technology services limited	a wholly owned subsidiary of Vector limited	Digital and technology services	6,747
Vector Auckland property limited	a wholly owned subsidiary of Vector limited	Asset management services	1,415
Vector Northern property limited	a wholly owned subsidiary of Vector limited	Asset management services	3,545



Company Name **Vector**  
 For Year Ended **31 March 2021**

**SCHEDULE 5c: REPORT ON TERM CREDIT SPREAD DIFFERENTIAL ALLOWANCE**

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

sch ref

**5c(i): Qualifying Debt (for public)**

Issuing party	Issue date	Pricing date	Original tenor (in years)	Coupon rate (%)	Book value at issue date (NZD)	Book value at date of financial statements (NZD)	Term Credit Spread Difference	Debt issue cost readjustment
[J]VCI	2-Feb-18	19-Dec-17	3	BKBM + [J]VCI				
[J]VCI	2-Feb-18	19-Dec-17	3	BKBM + [J]VCI				
[J]VCI	2-Feb-18	19-Dec-17	3	BKBM + [J]VCI				
[J]VCI	2-Feb-18	19-Dec-17	3	BKBM + [J]VCI				
[J]VCI	31-Jul-18	17-Jul-18	3	BKBM + [J]VCI				
[J]VCI	31-Jul-18	17-Jul-18	3	BKBM + [J]VCI				
[J]VCI	31-Jul-18	17-Jul-18	3	BKBM + [J]VCI				
[J]VCI	16-Sep-19	24-Jul-19	3	BKBM + [J]VCI				
[J]VCI	16-Sep-19	24-Jul-19	3	BKBM + [J]VCI				
[J]VCI	16-Sep-19	24-Jul-19	3	BKBM + [J]VCI				
[J]VCI	16-Sep-19	24-Jul-19	3	BKBM + [J]VCI				
[J]VCI	16-Sep-19	24-Jul-19	3	BKBM + [J]VCI				
[J]VCI	16-Apr-20	15-Apr-20	3	BKBM + [J]VCI				
[J]VCI	13-Jan-20	20-Dec-19	5	BKBM + [J]VCI				
<b>Subtotal of bank facilities- variable rate</b>						<b>148,683</b>		
<b>Capital bonds – fixed rate</b>	<b>15-Jun-17</b>	<b>14-Jun-17</b>	<b>5</b>	<b>5.7</b>	<b>307,205</b>	<b>306,511</b>	[J]VCI	[J]VCI
Wholesale Bonds- fixed rate Mar17	14-Mar-17	3-Mar-17	7	4.996	100,000		[J]VCI	[J]VCI
Wholesale Bonds- fixed rate Jun18	25-Jun-18	21-Jun-18	5.7	4.996	140,000		[J]VCI	[J]VCI
<b>Subtotal of wholesale bonds- variable rate</b>					<b>240,000</b>	<b>243,100</b>	[J]VCI	[J]VCI
Senior notes - 2020 USPP 12yr	12-Mar-20	4-Mar-20	12	[J]VCI	573,888		[J]VCI	[J]VCI
Senior notes - 2020 USPP 15 yr	12-Mar-20	4-Mar-20	15	[J]VCI	223,179		[J]VCI	[J]VCI
Senior notes - 2010 USPP 12yr	20-Dec-10	22-Sep-10	12	[J]VCI	250,516		[J]VCI	[J]VCI
Senior notes - 2014 USPP 7yr	14-Oct-14	19-Jun-14	7	[J]VCI	150,000		[J]VCI	[J]VCI
Senior notes - 2017 USPP 10yr	25-Oct-17	28-Sep-17	10	[J]VCI	277,200		[J]VCI	[J]VCI
Senior notes - 2017 USPP 12yr	25-Oct-17	28-Sep-17	12	[J]VCI	138,600		[J]VCI	[J]VCI
<b>Subtotal of senior notes - USD fixed rate</b>					<b>1,613,383</b>	<b>1,839,871</b>	[J]VCI	[J]VCI
<b>Floating rate notes- variable rate</b>	<b>26-Oct-05</b>	<b>26-Oct-05</b>	<b>15</b>	<b>BKBM + [J]VCI</b>	<b>350,000</b>	<b>349,899</b>	[J]VCI	[J]VCI
<b>Unsubordinated fixed rate bonds</b>	<b>27-May-19</b>	<b>16-May-19</b>	<b>6.0</b>	<b>3.45</b>	<b>250,000</b>	<b>247,536</b>	[J]VCI	[J]VCI
<i>* include additional rows if needed</i>						<b>3,135,600</b>	<b>11,032</b>	<b>(2,426)</b>

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

Gross term credit spread differential		8,606
Total book value of interest bearing debt	3,135,600	
Leverage	42%	
Average opening and closing RAB values	3,627,048	
Attribution Rate (%)		49%
Term credit spread differential allowance		4,181



Company Name **Vector**  
For Year Ended **31 March 2021**

**SCHEDULE 5d: REPORT ON COST ALLOCATIONS**

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

sch ref

		Value allocated (\$000s)				
		Arm's length deduction	Electricity distribution services	Non-electricity distribution services	Total	OVABAA allocation increase (\$000s)
<b>5d(i): Operating Cost Allocations</b>						
<b>Service interruptions and emergencies</b>						
	Directly attributable		13,329			
	Not directly attributable	-	-	-	-	-
	<b>Total attributable to regulated service</b>		13,329			
<b>Vegetation management</b>						
	Directly attributable		8,667			
	Not directly attributable	-	-	-	-	-
	<b>Total attributable to regulated service</b>		8,667			
<b>Routine and corrective maintenance and inspection</b>						
	Directly attributable		16,027			
	Not directly attributable	-	(15)	(3)	(18)	-
	<b>Total attributable to regulated service</b>		16,012			
<b>Asset replacement and renewal</b>						
	Directly attributable		11,049			
	Not directly attributable	-	-	-	-	-
	<b>Total attributable to regulated service</b>		11,049			
<b>System operations and network support</b>						
	Directly attributable		35,362			
	Not directly attributable	-	7,632	987	8,619	-
	<b>Total attributable to regulated service</b>		42,994			
<b>Business support</b>						
	Directly attributable		1,066			
	Not directly attributable	-	34,085	18,085	52,170	-
	<b>Total attributable to regulated service</b>		35,151			
	<b>Operating costs directly attributable</b>		85,500			
	<b>Operating costs not directly attributable</b>	-	41,702	19,069	60,771	-
	<b>Operational expenditure</b>		127,202			

		(\$000)	
<b>5d(ii): Other Cost Allocations</b>			
<b>Pass through and recoverable costs</b>			
<b>Pass through costs</b>			
	Directly attributable		11,342
	Not directly attributable		-
	<b>Total attributable to regulated service</b>		11,342
<b>Recoverable costs</b>			
	Directly attributable		179,978
	Not directly attributable		-
	<b>Total attributable to regulated service</b>		179,978

		(\$000)	
		CY-1	Current Year (CY)
<b>5d(iii): Changes in Cost Allocations* †</b>			
<b>Change in cost allocation 1</b>			
Cost category		Original allocation	
Original allocator or line items		New allocation	
New allocator or line items		Difference	-
Rationale for change			
<b>Change in cost allocation 2</b>			
Cost category		Original allocation	
Original allocator or line items		New allocation	
New allocator or line items		Difference	-
Rationale for change			
<b>Change in cost allocation 3</b>			
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 2021**

**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)
		<b>Electricity distribution services</b>
Subtransmission lines		
Directly attributable		72,144
Not directly attributable		1,427
<b>Total attributable to regulated service</b>		<b>73,571</b>
Subtransmission cables		
Directly attributable		520,253
Not directly attributable		
<b>Total attributable to regulated service</b>		<b>520,253</b>
Zone substations		
Directly attributable		316,024
Not directly attributable		
<b>Total attributable to regulated service</b>		<b>316,024</b>
Distribution and LV lines		
Directly attributable		362,568
Not directly attributable		48,235
<b>Total attributable to regulated service</b>		<b>410,803</b>
Distribution and LV cables		
Directly attributable		790,595
Not directly attributable		18,254
<b>Total attributable to regulated service</b>		<b>808,849</b>
Distribution substations and transformers		
Directly attributable		298,071
Not directly attributable		-
<b>Total attributable to regulated service</b>		<b>298,071</b>
Distribution switchgear		
Directly attributable		277,498
Not directly attributable		-
<b>Total attributable to regulated service</b>		<b>277,498</b>
Other network assets		
Directly attributable		915,393
Not directly attributable		4,671
<b>Total attributable to regulated service</b>		<b>920,064</b>
Non-network assets		
Directly attributable		35,357
Not directly attributable		28,847
<b>Total attributable to regulated service</b>		<b>64,204</b>
<b>Regulated service asset value directly attributable</b>		<b>3,587,903</b>
<b>Regulated service asset value not directly attributable</b>		<b>101,434</b>
<b>Total closing RAB value</b>		<b>3,689,337</b>

5e(ii): Changes in Asset Allocations* †		(\$000)	
		CY-1	Current Year (CY)
<b>Change in asset value allocation 1</b>			
Asset category	Non Network Assets	Original allocation	437
Original allocator or line items	Property, plant and equipment ratio for regulated businesses	New allocation	319
New allocator or line items	Directly attributable	Difference	(61)
Rationale for change	Assets have been repurposed.		
<b>Change in asset value allocation 2</b>			
Asset category	Non Network Assets	Original allocation	-
Original allocator or line items	Not attributable	New allocation	425
New allocator or line items	Directly attributable	Difference	(595)
Rationale for change	Assets have been repurposed.		
<b>Change in asset value allocation 3</b>			
Asset category	Non Network Assets	Original allocation	1,523
Original allocator or line items	Relevant employee ratio	New allocation	933
New allocator or line items	Property, plant and equipment ratio for regulated businesses	Difference	(1,546)
Rationale for change	Assets have been repurposed.		
<b>Change in asset value allocation 4</b>			
Asset category		Original allocation	
Original allocator or line items		New allocation	
New allocator or line items		Difference	
Rationale for change			
<b>Change in asset value allocation 5</b>			
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 2021**

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

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

sch ref

	(\$000)	(\$000)
<b>6a(i): Expenditure on Assets</b>		
Consumer connection		73,289
System growth		43,465
Asset replacement and renewal		100,567
Asset relocations		31,297
Reliability, safety and environment:		
Quality of supply	400	
Legislative and regulatory	158	
Other reliability, safety and environment	23,408	
<b>Total reliability, safety and environment</b>		23,966
<b>Expenditure on network assets</b>		272,584
Expenditure on non-network assets		23,908
<b>Expenditure on assets</b>		296,492
plus Cost of financing		587
less Value of capital contributions		88,010
plus Value of vested assets		-
<b>Capital expenditure</b>		209,069
<b>6a(ii): Subcomponents of Expenditure on Assets (where known)</b>		(\$000)
Energy efficiency and demand side management, reduction of energy losses		-
Overhead to underground conversion		12,628
Research and development		173
<b>6a(iii): Consumer Connection</b>		
Consumer types defined by EDB*	(\$000)	(\$000)
Service connection	16,921	
Customer substations	16,306	
Business subdivisions	3,501	
Residential subdivisions	31,842	
Capacity change	3,150	
Street lighting	1,566	
Easement costs	3	
* include additional rows if needed		
<b>Consumer connection expenditure</b>		73,289
less Capital contributions funding consumer connection expenditure	71,332	
<b>Consumer connection less capital contributions</b>		1,957
<b>6a(iv): System Growth and Asset Replacement and Renewal</b>		
	System Growth (\$000)	Asset Replacement and Renewal (\$000)
Subtransmission	10,233	1,207
Zone substations	11,066	20,438
Distribution and LV lines	4,430	48,720
Distribution and LV cables	4,167	7,379
Distribution substations and transformers	943	6,074
Distribution switchgear	677	14,673
Other network assets	11,949	2,076
<b>System growth and asset replacement and renewal expenditure</b>	43,465	100,567
less Capital contributions funding system growth and asset replacement and renewal	26	153
<b>System growth and asset replacement and renewal less capital contributions</b>	43,439	100,414
<b>6a(v): Asset Relocations</b>		
Project or programme*	(\$000)	(\$000)
* include additional rows if needed		
All other projects or programmes - asset relocations	31,297	
<b>Asset relocations expenditure</b>		31,297
less Capital contributions funding asset relocations	16,495	
<b>Asset relocations less capital contributions</b>		14,802



Company Name **Vector**  
 For Year Ended **31 March 2021**

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

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

sch ref

68				
69	<b>6a(vi): Quality of Supply</b>			
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	400		400
78	<b>Quality of supply expenditure</b>			<b>400</b>
79	less Capital contributions funding quality of supply	-		
80	<b>Quality of supply less capital contributions</b>			<b>400</b>
81	<b>6a(vii): Legislative and Regulatory</b>			
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	158		158
90	<b>Legislative and regulatory expenditure</b>			<b>158</b>
91	less Capital contributions funding legislative and regulatory	4		
92	<b>Legislative and regulatory less capital contributions</b>			<b>154</b>
93	<b>6a(viii): Other Reliability, Safety and Environment</b>			
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	23,408		23,408
102	<b>Other reliability, safety and environment expenditure</b>			<b>23,408</b>
103	less Capital contributions funding other reliability, safety and environment	-		
104	<b>Other reliability, safety and environment less capital contributions</b>			<b>23,408</b>
105				
106	<b>6a(ix): Non-Network Assets</b>			
107	<b>Routine expenditure</b>			
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	3,617		3,617
116	<b>Routine expenditure</b>			<b>3,617</b>
117	<b>Atypical expenditure</b>			
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	20,291		20,291
126	<b>Atypical expenditure</b>			<b>20,291</b>
127				
128	<b>Expenditure on non-network assets</b>			<b>23,908</b>



Company Name **Vector**  
 For Year Ended **31 March 2021**

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

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

sch ref

		(\$000)	(\$000)
7	<b>6b(i): Operational Expenditure</b>		
8	Service interruptions and emergencies	13,329	
9	Vegetation management	8,667	
10	Routine and corrective maintenance and inspection	16,012	
11	Asset replacement and renewal	11,049	
12	<b>Network opex</b>		49,057
13	System operations and network support	42,994	
14	Business support	35,151	
15	<b>Non-network opex</b>		78,145
16			
17	<b>Operational expenditure</b>		127,202
18	<b>6b(ii): Subcomponents of Operational Expenditure (where known)</b>		
19	Energy efficiency and demand side management, reduction of energy losses		
20	Direct billing*		
21	Research and development		
22	Insurance		3,140
23	* Direct billing expenditure by suppliers that directly bill the majority of their consumers		



Company Name **Vector**  
For Year Ended **31 March 2021**

## SCHEDULE 7: COMPARISON OF FORECASTS TO ACTUAL EXPENDITURE

This schedule compares actual revenue and expenditure to the previous forecasts that were made for the disclosure year. Accordingly, this schedule requires the forecast revenue and expenditure information from previous disclosures to be inserted.

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

sch ref

	Target (\$000) <sup>1</sup>	Actual (\$000)	% variance
<b>7(i): Revenue</b>			
Line charge revenue	565,200	560,533	(1%)
<b>7(ii): Expenditure on Assets</b>	<b>Forecast (\$000) <sup>2</sup></b>	<b>Actual (\$000)</b>	<b>% variance</b>
Consumer connection	67,133	73,289	9%
System growth	46,551	43,465	(7%)
Asset replacement and renewal	111,988	100,567	(10%)
Asset relocations	32,778	31,297	(5%)
Reliability, safety and environment:			
Quality of supply	–	400	–
Legislative and regulatory	–	158	–
Other reliability, safety and environment	27,141	23,408	(14%)
<b>Total reliability, safety and environment</b>	<b>27,141</b>	<b>23,966</b>	<b>(12%)</b>
<b>Expenditure on network assets</b>	<b>285,591</b>	<b>272,584</b>	<b>(5%)</b>
Expenditure on non-network assets	43,790	23,908	(45%)
Expenditure on assets	329,381	296,492	(10%)
<b>7(iii): Operational Expenditure</b>			
Service interruptions and emergencies	14,173	13,329	(6%)
Vegetation management	10,217	8,667	(15%)
Routine and corrective maintenance and inspection	18,458	16,012	(13%)
Asset replacement and renewal	13,836	11,049	(20%)
<b>Network opex</b>	<b>56,684</b>	<b>49,057</b>	<b>(13%)</b>
System operations and network support	37,365	42,994	15%
Business support	37,441	35,151	(6%)
<b>Non-network opex</b>	<b>74,806</b>	<b>78,145</b>	<b>4%</b>
<b>Operational expenditure</b>	<b>131,490</b>	<b>127,202</b>	<b>(3%)</b>
<b>7(iv): Subcomponents of Expenditure on Assets (where known)</b>			
Energy efficiency and demand side management, reduction of energy losses	–	–	–
Overhead to underground conversion	8,056	12,628	57%
Research and development	–	173	–
<b>7(v): Subcomponents of Operational Expenditure (where known)</b>			
Energy efficiency and demand side management, reduction of energy losses	–	–	–
Direct billing	–	–	–
Research and development	–	–	–
Insurance	3,252	3,140	(3%)

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

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



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

**SCHEDULE 8: REPORT ON BILLED QUANTITIES AND LINE CHARGE REVENUES**

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

sch ref

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

**Billed quantities by price component**

Consumer group name or price category code	Consumer type or types (eg, residential, commercial etc.)	Standard or non-standard consumer group (specify)	Average no. of ICs in disclosure year	Energy delivered to ICs in disclosure year (MWh)
ARCL	residential	Standard	47,575	263,153
ARCS	residential	Standard	32,637	313,690
ARUL	residential	Standard	11,808	42,698
ARUS	residential	Standard	9,922	53,184
ARHLC	residential	Standard	115,307	597,384
ARHSC	residential	Standard	59,628	629,698
ARHL	residential	Standard	18,129	72,930
ARHS	residential	Standard	8,153	68,337
ABSN	general	Standard	38,660	497,879
ABSU	general	Standard	1,706	26,021
ABSH	general	Standard	8,111	166,760
ALVN	low voltage	Standard	2,323	229,861
ALVT	low voltage	Standard	1,431	516,243
ATXN	transformer	Standard	162	20,515
ATXT	transformer	Standard	950	1,078,755
AHVN	high voltage	Standard	7	572
AHVT	high voltage	Standard	143	400,696
WRCL	residential	Standard	34,025	190,751
WRCS	residential	Standard	26,882	264,425
WRUL	residential	Standard	6,710	34,321
WRUS	residential	Standard	8,214	61,217
WRHLC	residential	Standard	71,145	379,077
WRHSC	residential	Standard	42,612	456,803
WRHL	residential	Standard	13,402	66,708
WRHS	residential	Standard	8,733	86,360
WBSN	general	Standard	14,855	231,221
WBSU	general	Standard	710	15,754
WBSH	general	Standard	7,916	129,843
WLVN	low voltage	Standard	906	115,074
WLVT	low voltage	Standard	258	124,787
WTXN	transformer	Standard	132	33,393
WTXH	transformer	Standard	279	342,409
WHVN	high voltage	Standard	-	-
WHVH	high voltage	Standard	24	112,644
NS	non-standard	Non-standard	31	586,758
<i>Add extra rows for additional consumer groups or price category codes as necessary</i>				
<b>Standard consumer totals</b>			<b>583,452</b>	<b>7,623,173</b>
<b>Non-standard consumer totals</b>			<b>31</b>	<b>586,758</b>
<b>Total for all consumers</b>			<b>583,483</b>	<b>8,209,931</b>

Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)

Price component	FIXD	AICO	24UC	OPFK	PEAK	CAPY	DAMD	DEXA	PWRP
Day	kWh	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVA/Day
	17,461,127	263,152,728	-	-	-	-	-	-	-
	11,982,321	313,689,887	-	-	-	-	-	-	-
	4,338,725	-	42,698,065	-	-	-	-	-	-
	3,637,078	-	53,184,340	-	-	-	-	-	-
	42,013,538	-	-	414,155,210	183,228,337	-	-	-	-
	21,736,170	-	-	440,055,160	189,643,307	-	-	-	-
	6,606,676	-	-	50,517,432	22,412,496	-	-	-	-
	2,965,710	-	-	47,623,767	20,713,673	-	-	-	-
	10,443,431	-	-	497,878,559	-	-	-	-	-
	26,078,972	-	-	26,021,031	-	-	-	-	-
	2,939,847	-	-	118,309,804	48,450,281	-	-	-	-
	849,304	-	229,860,564	-	-	126,680,919	-	-	320,135
	-	-	516,242,640	-	-	138,539,806	43,717,347	-	3,688,361
	59,182	-	20,515,005	-	-	13,418,908	-	-	14,860
	-	-	1,078,755,242	-	-	252,907,685	86,254,638	-	3,834,076
	2,555	-	571,853	-	-	517,933	-	-	6,377
	-	-	400,695,729	-	-	60,672,920	29,932,667	36,468	1,243,625
	12,468,196	190,750,601	-	-	-	-	-	-	-
	9,852,089	264,424,887	-	-	-	-	-	-	-
	2,461,624	-	34,320,985	-	-	-	-	-	-
	3,021,854	-	61,217,384	-	-	-	-	-	-
	25,934,747	-	-	261,954,710	117,122,765	-	-	-	-
	15,535,327	-	-	318,310,445	138,492,180	-	-	-	-
	4,886,726	-	-	45,929,665	20,778,055	-	-	-	-
	3,182,497	-	-	59,901,528	26,458,795	-	-	-	-
	5,405,779	-	231,230,715	-	-	-	-	-	-
	16,432,967	-	15,754,340	-	-	-	-	-	-
	2,861,159	-	-	91,833,398	38,009,454	-	-	-	-
	331,752	-	115,073,730	-	-	48,916,985	-	-	283,628
	94,132	-	124,786,701	-	-	24,970,945	9,808,260	-	694,689
	48,299	-	33,393,176	-	-	11,780,426	-	-	159,999
	102,001	-	342,408,724	-	-	76,488,925	27,099,056	-	1,177,690
	8,964	-	-	-	-	-	-	-	-
	1,460	-	112,643,824	-	-	14,953,890	7,775,778	13,706	168,953
	-	-	-	-	-	-	-	-	12,277
	253,742,749	1,032,018,103	3,937,252,407	1,848,591,119	805,309,343	769,849,344	204,587,746	50,174	11,592,393
	1,460	-	-	-	-	-	-	-	12,277
	253,744,209	1,032,018,103	3,937,252,407	1,848,591,119	805,309,343	769,849,344	204,587,746	50,174	11,604,670

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

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

**SCHEDULE 8: REPORT ON BILLED QUANTITIES AND LINE CHARGE REVENUES**

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

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

**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)	Rate (eg, \$ per day, \$ per kWh, etc.)	Price component									
								FIXD	AICO	24UC	OPFK	PEAK	CAPY	DAMD	DEXA	PWRP	
								Day	kWh	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVA/Day
ARCL	residential	Standard	\$25,242		\$17,163	\$8,079		\$2,610	\$22,632								
ARCS	residential	Standard	\$26,784		\$17,154	\$9,630		\$12,060	\$14,724								
ARUL	residential	Standard	\$4,585		\$3,009	\$1,576		\$649		\$3,936							
ARUS	residential	Standard	\$6,486		\$4,523	\$1,963		\$3,661		\$2,825							
ARHLC	residential	Standard	\$56,634		\$43,203	\$13,431		\$6,280		\$25,630	\$24,724						
ARHSC	residential	Standard	\$50,102		\$36,201	\$13,901		\$21,878		\$10,043	\$18,181						
ARHL	residential	Standard	\$7,558		\$5,494	\$2,064		\$988		\$3,126	\$3,444						
ARNS	residential	Standard	\$6,446		\$4,538	\$1,908		\$2,985		\$1,087	\$2,374						
ABSX	general	Standard	\$36,957		\$18,585	\$18,372		\$10,512		\$26,445							
ABSU	general	Standard	\$2,746		\$2,069	\$677		\$2,079		\$667							
ABSH	general	Standard	\$11,212		\$6,750	\$4,462		\$2,959		\$2,700	\$5,553						
ALVN	low voltage	Standard	\$19,308		\$15,010	\$4,298		\$1,507		\$12,393			\$5,315				\$93
ALVT	low voltage	Standard	\$25,766		\$17,460	\$8,306				\$6,174			\$5,812	\$12,708			\$1,072
ATXN	transformer	Standard	\$1,742		\$1,358	\$384		\$103		\$1,084			\$551				\$4
ATXT	transformer	Standard	\$48,644		\$32,256	\$16,388				\$12,578			\$10,384	\$24,567			\$1,115
ARVN	high voltage	Standard	\$56		\$45	\$11		\$4		\$29			\$21				\$2
ARVT	high voltage	Standard	\$15,588		\$9,901	\$5,687				\$4,312			\$2,413	\$8,269		\$32	\$362
WRCL	residential	Standard	\$18,293		\$12,427	\$5,856		\$1,865	\$16,418								
WRCS	residential	Standard	\$22,346		\$14,228	\$8,118		\$9,924	\$12,422								
WRUL	residential	Standard	\$3,534		\$2,268	\$1,266		\$368		\$3,166							
WRUS	residential	Standard	\$6,298		\$4,039	\$2,259		\$3,044		\$3,254							
WRHLC	residential	Standard	\$35,921		\$27,336	\$8,585		\$3,880		\$16,224	\$15,817						
WRHSC	residential	Standard	\$36,207		\$26,056	\$10,151		\$15,649		\$7,270	\$13,288						
WRHL	residential	Standard	\$6,772		\$4,858	\$1,914		\$731		\$2,845	\$3,196						
WRHS	residential	Standard	\$7,609		\$5,172	\$2,437		\$3,206		\$1,368	\$3,035						
WRBN	general	Standard	\$17,737		\$9,205	\$8,532		\$5,445		\$12,292							
WRBL	general	Standard	\$1,715		\$1,305	\$410		\$1,311		\$404							
WRBH	general	Standard	\$9,339		\$5,838	\$3,501		\$2,882		\$2,097	\$4,360						
WLVN	low voltage	Standard	\$7,481		\$5,329	\$2,152		\$1,899		\$3,845			\$1,654				\$83
WLVB	low voltage	Standard	\$5,255		\$3,391	\$1,864		\$1,016		\$622			\$844	\$2,571			\$202
WTKN	transformer	Standard	\$1,800		\$1,176	\$624		\$271		\$1,092			\$390				\$47
WTKH	transformer	Standard	\$12,588		\$7,439	\$5,149		\$1,079		\$1,673			\$2,533	\$6,960			\$343
WHVN	high voltage	Standard															
WHVB	high voltage	Standard	\$3,107		\$1,630	\$1,477		\$92		\$539			\$480	\$1,937	\$10		\$49
NS	non-standard	Non-standard	\$18,685		\$11,424	\$7,261		\$18,482									\$203
Add extra rows for additional consumer groups or price category codes as necessary																	
Non-standard consumer totals			\$541,848		\$366,416	\$175,432		\$120,937	\$66,196	\$97,530	\$72,390	\$93,972	\$30,397	\$57,012	\$42		\$3,372
Non-standard consumer totals			\$18,685		\$11,424	\$7,261		\$18,482									\$203
Total for all consumers			\$560,533		\$377,840	\$182,693		\$139,419	\$66,196	\$97,530	\$72,390	\$93,972	\$30,397	\$57,012	\$42		\$3,575

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

**8(iii): Number of ICPs directly billed**

Number of directly billed ICPs at year end

Check  OK

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

**SCHEDULE 8: REPORT ON BILLED QUANTITIES AND LINE CHARGE REVENUES**

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

sch ref

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

**Billed quantities by price component**

Price component

Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)

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

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)	FIXD	AICO	24UC	OPFK	PEAK	CAPY	DAMD	DEXA	PWRF
					Day	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVA/Day
ARCL	residential	Standard	47,575	263,153	17,461,127	263,152,728	-	-	-	-	-	-	-
ARCS	residential	Standard	32,637	313,690	11,982,321	313,689,887	-	-	-	-	-	-	-
ARUL	residential	Standard	11,806	42,698	4,338,725	-	42,698,065	-	-	-	-	-	-
ARUS	residential	Standard	9,922	53,184	3,637,078	-	53,184,340	-	-	-	-	-	-
ARHLC	residential	Standard	115,307	597,384	42,013,538	-	-	414,155,210	183,228,337	-	-	-	-
ARHSC	residential	Standard	59,628	629,698	21,736,170	-	-	440,055,160	189,643,307	-	-	-	-
ARHL	residential	Standard	18,125	72,930	5,606,678	-	-	50,517,432	22,412,496	-	-	-	-
ARHS	residential	Standard	8,151	88,337	2,965,710	-	-	47,623,767	20,713,673	-	-	-	-
ABSN	general	Standard	28,660	497,879	10,443,431	-	497,878,559	-	-	-	-	-	-
ABSU	general	Standard	1,706	26,021	26,078,972	-	26,021,031	-	-	-	-	-	-
ABSH	general	Standard	8,111	166,760	2,939,847	-	-	118,309,804	48,450,281	-	-	-	-
ALVN	low voltage	Standard	2,323	229,861	849,304	-	229,860,564	-	-	126,680,919	-	-	320,135
ALVT	low voltage	Standard	1,431	516,243	-	-	516,242,640	-	-	138,539,806	43,717,347	-	3,688,361
ATXN	transformer	Standard	162	20,515	59,182	-	20,515,005	-	-	13,418,908	-	-	14,860
ATXT	transformer	Standard	950	1,078,755	-	-	1,078,755,242	-	-	252,907,685	86,254,638	-	3,834,076
AMVN	high voltage	Standard	74	572	2,555	-	571,653	-	-	517,935	-	-	6,377
AMHT	high voltage	Standard	142	400,696	-	-	400,695,729	-	-	60,672,920	29,932,667	36,468	1,243,625
NS	non-standard	Non-standard	27	481,513	9,855	-	-	-	-	-	-	-	13,599
<i>Add extra rows for additional consumer groups or price category codes as necessary</i>													
<b>Standard consumer totals</b>			346,649	4,978,376	151,114,636	576,842,615	2,866,422,828	1,070,661,373	464,448,094	592,738,173	159,904,652	36,468	9,107,434
<b>Non-standard consumer totals</b>			27	481,513	9,855	-	-	-	-	-	-	-	13,599
<b>Total for all consumers</b>			346,676	5,459,889	151,124,491	576,842,615	2,866,422,828	1,070,661,373	464,448,094	592,738,173	159,904,652	36,468	9,121,033

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

**SCHEDULE 8: REPORT ON BILLED QUANTITIES AND LINE CHARGE REVENUES**

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

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

**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)	Rate (eg, \$ per day, \$ per kWh, etc.)	Price component											
								FIXD	AICO	24UC	OPFK	PEAK	CAPY	DAMD	DEXA	PWRF			
								Day	kWh	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVA/Day		
ARCL	residential	Standard	\$25,242		\$17,163	\$8,079		\$2,610	\$22,632										
ARCS	residential	Standard	\$26,784		\$17,154	\$9,630		\$12,060	\$14,724										
ARUL	residential	Standard	\$4,585		\$3,009	\$1,576		\$649		\$3,936									
ARUS	residential	Standard	\$6,486		\$4,523	\$1,963		\$3,661		\$2,825									
ARHLC	residential	Standard	\$56,634		\$43,203	\$13,431		\$6,280		\$25,630	\$24,724								
ARHSC	residential	Standard	\$50,102		\$36,201	\$13,901		\$21,878		\$10,043	\$18,181								
ARHL	residential	Standard	\$7,558		\$5,494	\$2,064		\$988		\$5,126	\$3,444								
ARHS	residential	Standard	\$6,446		\$4,538	\$1,908		\$2,985		\$1,087	\$2,374								
ABSN	general	Standard	\$36,957		\$18,585	\$18,372		\$10,512		\$26,445									
ABSU	general	Standard	\$2,746		\$2,069	\$677		\$2,079		\$667									
ABSH	general	Standard	\$11,212		\$6,750	\$4,462		\$2,959		\$2,700	\$5,553								
ALVN	low voltage	Standard	\$19,308		\$15,010	\$4,298		\$1,507		\$12,393			\$5,315					\$93	
ALVT	low voltage	Standard	\$25,766		\$17,460	\$8,306				\$6,174			\$5,812	\$12,708				\$1,072	
ATXN	transformer	Standard	\$1,742		\$1,358	\$384		\$103		\$1,084			\$551					\$4	
ATXT	transformer	Standard	\$48,644		\$32,256	\$16,388				\$12,578			\$10,384	\$24,567				\$1,115	
ARVW	high voltage	Standard	\$56		\$45	\$11		\$4		\$29			\$21					\$2	
ARVT	high voltage	Standard	\$15,588		\$9,901	\$5,687				\$4,512			\$2,413	\$8,269	\$32			\$362	
N5	non-standard	Non-standard	\$15,707		\$9,273	\$6,434		\$15,602										\$105	
Standard consumer totals				\$345,856		\$234,719	\$111,137	\$68,275	\$37,356	\$70,643	\$42,586	\$54,276	\$24,496	\$45,544	\$32			\$2,648	
Non-standard consumer totals				\$15,707		\$9,273	\$6,434	\$15,602											\$105
Total for all consumers				\$361,563		\$243,992	\$117,571	\$83,877	\$37,356	\$70,643	\$42,586	\$54,276	\$24,496	\$45,544	\$32				\$2,753

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

**8(iii): Number of ICPs directly billed**

Number of directly billed ICPs at year end	34	Check	OK
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Company Name	Vector Ltd
For Year Ended	31 March 2020
Network / Sub-Network Name	Northern

**SCHEDULE 8: REPORT ON BILLED QUANTITIES AND LINE CHARGE REVENUES**

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

sch ref

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

**Billed quantities by price component**

Price component

Unit charging basis (eg, days, kW of demand, kVA of capacity, etc.)

	FIXD	AICO	24UC	OPFK	PEAK	CAPY	DAMD	DEXA	PWRF
Day	kWh	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVA/Day
12,468,196	190,750,601	-	-	-	-	-	-	-	-
9,852,089	264,424,887	-	-	-	-	-	-	-	-
2,461,624	-	34,320,985	-	-	-	-	-	-	-
3,021,854	-	61,217,384	-	-	-	-	-	-	-
25,934,747	-	-	261,954,710	117,122,765	-	-	-	-	-
15,535,327	-	-	318,310,445	138,492,180	-	-	-	-	-
4,886,726	-	-	45,929,665	20,778,055	-	-	-	-	-
3,182,497	-	-	59,901,528	26,458,795	-	-	-	-	-
5,405,779	-	231,230,715	-	-	-	-	-	-	-
16,432,967	-	15,754,340	-	-	-	-	-	-	-
2,861,159	-	-	91,833,398	38,009,454	-	-	-	-	-
331,752	-	115,073,730	-	-	48,916,985	-	-	-	283,628
94,132	-	124,786,701	-	-	24,970,945	9,808,260	-	-	694,689
48,299	-	33,393,176	-	-	11,780,426	-	-	-	159,999
102,001	-	342,408,724	-	-	76,488,925	27,099,056	-	-	1,177,690
-	-	-	-	-	-	-	-	-	-
8,964	-	112,643,824	-	-	14,953,890	7,775,778	13,706	-	168,953
1,460	-	-	-	-	-	-	-	-	12,277
102,628,113	455,175,488	1,070,829,579	777,929,746	340,861,249	177,111,171	44,683,094	13,706	-	2,484,959
1,460	-	-	-	-	-	-	-	-	12,277
102,629,573	455,175,488	1,070,829,579	777,929,746	340,861,249	177,111,171	44,683,094	13,706	-	2,497,236

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

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)	
WRCL	residential	Standard	34,025	190,751	
WRCS	residential	Standard	26,882	264,425	
WRUL	residential	Standard	6,710	34,321	
WRUS	residential	Standard	8,214	61,217	
WRHLC	residential	Standard	71,145	379,077	
WRHSC	residential	Standard	42,612	456,803	
WRHL	residential	Standard	13,402	66,708	
WRHS	residential	Standard	8,731	86,360	
WBSN	general	Standard	14,855	231,231	
WBSU	general	Standard	710	15,754	
WBSH	general	Standard	7,916	129,843	
WLVN	low voltage	Standard	906	115,074	
WLVH	low voltage	Standard	258	124,787	
WTXN	transformer	Standard	132	33,393	
WTXR	transformer	Standard	279	342,409	
WHVN	high voltage	Standard	-	-	
WHVH	high voltage	Standard	24	112,644	
NS	non-standard	Non-standard	4	105,245	
Standard consumer totals				236,803	2,644,797
Non-standard consumer totals				4	105,245
Total for all consumers				236,807	2,750,042

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

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

**SCHEDULE 8: REPORT ON BILLED QUANTITIES AND LINE CHARGE REVENUES**

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

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

**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)	Rate (eg, \$ per day, \$ per kWh, etc.)	Price component											
								FIXD	AICO	24UC	OPFK	PEAK	CAPY	DAMD	DEXA	PWRF			
								Day	kWh	kWh	kWh	kWh	kWh	kVA/Day	kVA/Day	kVA/Day	kVA/Day		
WRCL	residential	Standard	\$18,283		\$12,427	\$5,856		\$1,865	\$16,418										
WRCS	residential	Standard	\$22,346		\$14,228	\$8,118		\$9,924	\$12,422										
WRUL	residential	Standard	\$3,534		\$2,268	\$1,266		\$368		\$3,166									
WRUS	residential	Standard	\$6,298		\$4,039	\$2,259		\$3,044		\$3,254									
WRHLC	residential	Standard	\$35,921		\$27,336	\$8,585		\$3,880			\$16,224	\$15,817							
WRHSC	residential	Standard	\$36,207		\$26,056	\$10,151		\$15,649			\$7,270	\$13,288							
WRHL	residential	Standard	\$6,772		\$4,858	\$1,914		\$731			\$2,845	\$3,196							
WRHS	residential	Standard	\$7,409		\$5,172	\$2,237		\$3,286			\$1,368	\$3,035							
WBSN	general	Standard	\$17,737		\$9,205	\$8,532		\$5,445		\$12,292									
WBSU	general	Standard	\$1,715		\$1,305	\$410		\$1,311		\$404									
WBSH	general	Standard	\$9,339		\$5,838	\$3,501		\$2,882			\$2,097	\$4,360							
WLVN	low voltage	Standard	\$7,481		\$5,329	\$2,152		\$1,899		\$3,845			\$1,654					\$83	
WLVH	low voltage	Standard	\$5,255		\$3,391	\$1,864		\$1,016		\$622			\$844	\$2,571				\$202	
WTXN	transformer	Standard	\$1,800		\$1,176	\$624		\$271		\$1,092			\$390					\$47	
WTXH	transformer	Standard	\$12,588		\$7,439	\$5,149		\$1,079		\$1,673			\$2,533	\$6,960				\$343	
WHVN	high voltage	Standard																	
WHVH	high voltage	Standard	\$3,107		\$1,630	\$1,477		\$92		\$539			\$480	\$1,937	\$10			\$49	
NS	non-standard	Non-standard	\$2,978		\$2,151	\$827		\$2,880										\$98	
Standard consumer totals			\$195,992		\$131,697	\$64,295		\$52,662	\$28,840	\$26,887	\$29,804	\$39,696	\$5,901	\$11,468	\$10			\$724	
Non-standard consumer totals			\$2,978		\$2,151	\$827		\$2,880											\$98
Total for all consumers			\$198,970		\$133,848	\$65,122		\$55,542	\$28,840	\$26,887	\$29,804	\$39,696	\$5,901	\$11,468	\$10			\$822	

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

**8(iii): Number of ICPs directly billed**

Number of directly billed ICPs at year end	10	Check	OK
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Company Name	Vector
For Year Ended	31 March 2021
Network / Sub-network Name	Combined

**SCHEDULE 9a: ASSET REGISTER**

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

sch ref

					Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1-4)
8	Voltage	Asset category	Asset class	Units				
9	All	Overhead Line	Concrete poles / steel structure	No.	117,263	118,014	751	3
10	All	Overhead Line	Wood poles	No.	5,826	5,714	-112	2
11	All	Overhead Line	Other pole types	No.	935	1,022	87	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	368	365	-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	354	376	22	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	145	147	2	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	2	0	-2	N/A
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	50	29	-20	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	30	31	1	4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	17	17	0	4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	4
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	12	12	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	102	104	2	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	7	7	0	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	20	20	0	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	2	2	0	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	183	184	1	4
29	HV	Zone substation switchgear	33kV RMU	No.	13	7	-6	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	260	257	-3	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	105	121	16	N/A
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	1,369	1,478	109	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	219	219	0	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	3,746	3,738	-8	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	N/A
37	HV	Distribution Line	SWER conductor	km	0	0	0	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1,561	1,623	62	3
39	HV	Distribution Cable	Distribution UG PILC	km	2,184	2,178	-6	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.	274	301	27	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	293	314	21	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	10,536	10,848	312	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	3,246	3,186	-60	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	6,216	6,072	-144	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	7,600	7,604	4	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	14,559	14,721	162	4
48	HV	Distribution Transformer	Voltage regulators	No.	12	12	0	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	13,075	13,218	143	3
50	LV	LV Line	LV OH Conductor	km	4,154	4,154	-1	3
51	LV	LV Cable	LV UG Cable	km	6,290	6,439	149	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	479	479	0	3
53	LV	Connections	OH/UG consumer service connections	No.	578,106	588,018	9,912	4
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	3,934	4,163	229	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	356	375	19	3
56	All	Capacitor Banks	Capacitors including controls	No	76	74	-2	4
57	All	Load Control	Centralised plant	Lot	33	32	-1	3
58	All	Load Control	Relays	No	0	0	0	N/A
59	All	Civils	Cable Tunnels	km	10	10	0	3

Company Name	Vector
For Year Ended	31 March 2021
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

					Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1-4)
8	Voltage	Asset category	Asset class	Units				
9	All	Overhead Line	Concrete poles / steel structure	No.	50,392	50,668	276	3
10	All	Overhead Line	Wood poles	No.	3,706	3,649	-57	2
11	All	Overhead Line	Other pole types	No.	437	442	5	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	51	48	-3	4
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	0	0	0	N/A
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	209	230	21	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	142	145	2	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	2	0	-2	N/A
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	49	28	-20	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	30	31	1	4
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	17	17	0	4
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	4
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	11	11	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	50	51	1	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	5	5	0	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	20	20	0	4
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	0	0	0	N/A
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	0	0	0	N/A
29	HV	Zone substation switchgear	33kV RMU	No.	0	0	0	N/A
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	124	131	7	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	0	2	2	N/A
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	859	958	99	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	129	128	-1	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	883	881	-2	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	N/A
37	HV	Distribution Line	SWER conductor	km	0	0	0	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	697	728	31	3
39	HV	Distribution Cable	Distribution UG PILC	km	1,564	1,562	-2	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.	60	71	11	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	235	255	20	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	2,438	2,532	94	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	2,463	2,406	-57	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	4,535	4,590	55	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	1,977	1,969	-8	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	7,027	7,134	107	4
48	HV	Distribution Transformer	Voltage regulators	No.	5	5	0	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	6,187	6,225	38	3
50	LV	LV Line	LV OH Conductor	km	1,934	1,926	-8	3
51	LV	LV Cable	LV UG Cable	km	3,799	3,880	81	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	264	264	0	3
53	LV	Connections	OH/UG consumer service connections	No.	343,703	349,020	5,317	4
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	2,161	2,175	14	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	197	204	7	2
56	All	Capacitor Banks	Capacitors including controls	No.	13	13	0	4
57	All	Load Control	Centralised plant	Lot	22	21	-1	3
58	All	Load Control	Relays	No.	0	0	0	N/A
59	All	Civils	Cable Tunnels	km	10	10	0	3

Company Name	Vector
For Year Ended	31 March 2021
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

					Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1-4)
8	Voltage	Asset category	Asset class	Units				
9	All	Overhead Line	Concrete poles / steel structure	No.	66,871	67,346	475	3
10	All	Overhead Line	Wood poles	No.	2,120	2,065	-55	2
11	All	Overhead Line	Other pole types	No.	498	580	82	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	317	317	0	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	145	146	1	4
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	2	2	0	4
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	0	0	0	N/A
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	1	1	0	4
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	0	0	0	N/A
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	0	0	0	N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	0	0	0	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	0	0	0	N/A
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	1	1	0	4
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	52	53	1	4
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	2	2	0	4
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	0	0	0	N/A
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	2	2	0	4
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	0	0	0	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	183	184	1	4
29	HV	Zone substation switchgear	33kV RMU	No.	13	7	-6	4
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	136	126	-10	4
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	105	119	14	N/A
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	510	520	10	4
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	0	0	0	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	90	91	1	4
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	2,863	2,857	-6	3
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	0	0	0	N/A
37	HV	Distribution Line	SWER conductor	km	0	0	0	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	864	895	31	3
39	HV	Distribution Cable	Distribution UG PILC	km	620	616	-4	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.	214	230	16	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	58	59	1	3
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	8,098	8,316	218	3
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	783	780	-3	3
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	1,681	1,482	-199	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	5,623	5,635	12	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	7,532	7,587	55	4
48	HV	Distribution Transformer	Voltage regulators	No.	7	7	0	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	6,888	6,993	105	3
50	LV	LV Line	LV OH Conductor	km	2,221	2,228	7	3
51	LV	LV Cable	LV UG Cable	km	2,491	2,559	68	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	215	215	0	3
53	LV	Connections	OH/UG consumer service connections	No.	234,403	238,998	4,595	4
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	1,773	1,988	215	3
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	159	171	12	2
56	All	Capacitor Banks	Capacitors including controls	No	63	61	-2	4
57	All	Load Control	Centralised plant	Lot	11	11	0	3
58	All	Load Control	Relays	No	0	0	0	N/A
59	All	Civils	Cable Tunnels	km	0	0	0	N/A









Company Name	Vector
For Year Ended	31 March 2021
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

	Overhead (km)	Underground (km)	Total circuit length (km)
9			
10	<b>Circuit length by operating voltage (at year end)</b>		
11	27	49	75
12	-	-	-
13	365	441	806
14	-	-	-
15	2	172	174
16	3,736	3,759	7,495
17	4,154	6,439	10,593
18	<b>8,284</b>	<b>10,860</b>	<b>19,144</b>
19			
20	18	461	479
21			4,559
22			
23	<b>Overhead circuit length by terrain (at year end)</b>		
24	4,754		57%
25	3,530		43%
26			-
27			-
28			-
29			-
30	<b>8,284</b>		<b>100%</b>
31			
32			
33	19,094		99.7%
34			
35	8,284		100%

Company Name	Vector
For Year Ended	31 March 2021
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

sch ref		Circuit length by operating voltage (at year end)		
		Overhead (km)	Underground (km)	Total circuit length (km)
9				
10	<b>Circuit length by operating voltage (at year end)</b>			
11	> 66kV	-	49	49
12	50kV & 66kV	-	-	-
13	33kV	48	290	338
14	SWER (all SWER voltages)	-	-	-
15	22kV (other than SWER)	2	172	174
16	6.6kV to 11kV (inclusive—other than SWER)	879	2,242	3,121
17	Low voltage (< 1kV)	1,926	3,880	5,806
18	<b>Total circuit length (for supply)</b>	<b>2,855</b>	<b>6,633</b>	<b>9,489</b>
19				
20	Dedicated street lighting circuit length (km)	5	259	264
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			2,406
22				
23	<b>Overhead circuit length by terrain (at year end)</b>			
24	Urban	2,389		84%
25	Rural	466		16%
26	Remote only			-
27	Rugged only			-
28	Remote and rugged			-
29	Unallocated overhead lines			-
30	<b>Total overhead length</b>	<b>2,855</b>		<b>100%</b>
31				
32				
33	Length of circuit within 10km of coastline or geothermal areas (where known)	9,479		99.9%
34				
35	Overhead circuit requiring vegetation management	2,855		100%

Company Name	Vector
For Year Ended	31 March 2021
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

sch ref		Overhead (km)	Underground (km)	Total circuit length (km)
9				
10	<b>Circuit length by operating voltage (at year end)</b>			
11	> 66kV	27	-	27
12	50kV & 66kV	-	-	-
13	33kV	317	150	468
14	SWER (all SWER voltages)	-	-	-
15	22kV (other than SWER)	-	-	-
16	6.6kV to 11kV (inclusive—other than SWER)	2,857	1,517	4,374
17	Low voltage (< 1kV)	2,228	2,559	4,787
18	<b>Total circuit length (for supply)</b>	<b>5,429</b>	<b>4,226</b>	<b>9,655</b>
19				
20	Dedicated street lighting circuit length (km)	13	202	215
21	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)			2,153
22				
23	<b>Overhead circuit length by terrain (at year end)</b>			
24	Urban	2,365		44%
25	Rural	3,064		56%
26	Remote only	-		-
27	Rugged only	-		-
28	Remote and rugged	-		-
29	Unallocated overhead lines	-		-
30	<b>Total overhead length</b>	<b>5,429</b>		<b>100%</b>
31				
32				
33	Length of circuit within 10km of coastline or geothermal areas (where known)	9,615		99.58%
34				
35	Overhead circuit requiring vegetation management	5,429		100%

Company Name **Vector**  
 For Year Ended **31 March 2021**

**SCHEDULE 9d: REPORT ON EMBEDDED NETWORKS**

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

sch ref

	Location *	Number of ICPs served	Line charge revenue (\$000)
8			
9	None		
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

\* 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 2021
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

8	<b>9e(i): Consumer Connections</b>		
9	Number of ICPs connected in year by consumer type		
10			
11	Consumer types defined by EDB*		<b>Number of connections (ICPs)</b>
12	Residential		8,545
13	Commercial		5,309
14			
15			
16	* include additional rows if needed		
17	<b>Connections total</b>		<b>13,854</b>
18			
19	<b>Distributed generation</b>		
20	Number of connections made in year	901	connections
21	Capacity of distributed generation installed in year	4.79	MVA
22	<b>9e(ii): System Demand</b>		
23			
24			<b>Demand at time of maximum coincident demand (MW)</b>
25	<b>Maximum coincident system demand</b>		
26	GXP demand	1,715	
27	plus Distributed generation output at HV and above	15	
28	<b>Maximum coincident system demand</b>	<b>1,730</b>	
29	less Net transfers to (from) other EDBs at HV and above	-	
30	<b>Demand on system for supply to consumers' connection points</b>	<b>1,730</b>	
31	<b>Electricity volumes carried</b>		<b>Energy (GWh)</b>
32	Electricity supplied from GXPs	8,395	
33	less Electricity exports to GXPs	-	
34	plus Electricity supplied from distributed generation	147	
35	less Net electricity supplied to (from) other EDBs	-	
36	<b>Electricity entering system for supply to consumers' connection points</b>	<b>8,542</b>	
37	less Total energy delivered to ICPs	8,210	
38	<b>Electricity losses (loss ratio)</b>	<b>332</b>	<b>3.9%</b>
39			
40	<b>Load factor</b>	<b>0.56</b>	
41	<b>9e(iii): Transformer Capacity</b>		
42			<b>(MVA)</b>
43	Distribution transformer capacity (EDB owned)	4,682	
44	Distribution transformer capacity (Non-EDB owned, estimated)	646	
45	<b>Total distribution transformer capacity</b>	<b>5,328</b>	
46			
47	<b>Zone substation transformer capacity</b>	<b>4,506</b>	

Company Name	Vector
For Year Ended	31 March 2021
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

8	<b>9e(i): Consumer Connections</b>		
9	Number of ICPs connected in year by consumer type		
10			
11	Consumer types defined by EDB*		<b>Number of connections (ICPs)</b>
12	Residential		5,589
13	Commercial		2,539
14			
15			
16	* include additional rows if needed		
17	<b>Connections total</b>		<b>8,128</b>
18			
19	<b>Distributed generation</b>		
20	Number of connections made in year	479	connections
21	Capacity of distributed generation installed in year	2.51	MVA
22	<b>9e(ii): System Demand</b>		
23			
24			
25	<b>Maximum coincident system demand</b>		<b>Demand at time of maximum coincident demand (MW)</b>
26	GXP demand	1,100	
27	plus Distributed generation output at HV and above	4	
28	<b>Maximum coincident system demand</b>	<b>1,104</b>	
29	less Net transfers to (from) other EDBs at HV and above	-	
30	<b>Demand on system for supply to consumers' connection points</b>	<b>1,104</b>	
31	<b>Electricity volumes carried</b>		<b>Energy (GWh)</b>
32	Electricity supplied from GXPs	5,601	
33	less Electricity exports to GXPs	-	
34	plus Electricity supplied from distributed generation	50	
35	less Net electricity supplied to (from) other EDBs	-	
36	<b>Electricity entering system for supply to consumers' connection points</b>	<b>5,651</b>	
37	less Total energy delivered to ICPs	5,460	
38	<b>Electricity losses (loss ratio)</b>	<b>191</b>	<b>3.4%</b>
39			
40	<b>Load factor</b>	<b>0.58</b>	
41	<b>9e(iii): Transformer Capacity</b>		
42			<b>(MVA)</b>
43	Distribution transformer capacity (EDB owned)	2,965	
44	Distribution transformer capacity (Non-EDB owned, estimated)	283	
45	<b>Total distribution transformer capacity</b>	<b>3,248</b>	
46			
47	<b>Zone substation transformer capacity</b>	<b>2,990</b>	

Company Name	Vector
For Year Ended	31 March 2021
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

8	<b>9e(i): Consumer Connections</b>		
9	Number of ICPs connected in year by consumer type		
10			
11	Consumer types defined by EDB*		<b>Number of connections (ICPs)</b>
12	Residential		2,956
13	Commercial		2,770
14			
15			
16	* include additional rows if needed		
17	<b>Connections total</b>		<b>5,726</b>
18			
19	<b>Distributed generation</b>		
20	Number of connections made in year	422	connections
21	Capacity of distributed generation installed in year	2.28	MVA
22	<b>9e(ii): System Demand</b>		
23			
24			<b>Demand at time of maximum coincident demand (MW)</b>
25	<b>Maximum coincident system demand</b>		
26	GXP demand	688	
27	plus Distributed generation output at HV and above	11	
28	<b>Maximum coincident system demand</b>	<b>699</b>	
29	less Net transfers to (from) other EDBs at HV and above	-	
30	<b>Demand on system for supply to consumers' connection points</b>	<b>699</b>	
31	<b>Electricity volumes carried</b>		<b>Energy (GWh)</b>
32	Electricity supplied from GXPs	2,793	
33	less Electricity exports to GXPs	-	
34	plus Electricity supplied from distributed generation	97	
35	less Net electricity supplied to (from) other EDBs	-	
36	<b>Electricity entering system for supply to consumers' connection points</b>	<b>2,890</b>	
37	less Total energy delivered to ICPs	2,750	
38	<b>Electricity losses (loss ratio)</b>	<b>140</b>	<b>4.8%</b>
39			
40	<b>Load factor</b>	<b>0.47</b>	
41	<b>9e(iii): Transformer Capacity</b>		
42			<b>(MVA)</b>
43	Distribution transformer capacity (EDB owned)	1,717	
44	Distribution transformer capacity (Non-EDB owned, estimated)	362	
45	<b>Total distribution transformer capacity</b>	<b>2,079</b>	
46			
47	<b>Zone substation transformer capacity</b>	<b>1,516</b>	

Company Name	Vector
For Year Ended	31 March 2021
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

8	<b>10(i): Interruptions</b>			
9	<b>Interruptions by class</b>			
10		<b>Number of interruptions</b>		
11	Class A (planned interruptions by Transpower)	3		
12	Class B (planned interruptions on the network)	1,616		
13	Class C (unplanned interruptions on the network)	1,388		
14	Class D (unplanned interruptions by Transpower)	2		
15	Class E (unplanned interruptions of EDB owned generation)	0		
16	Class F (unplanned interruptions of generation owned by others)	0		
17	Class G (unplanned interruptions caused by another disclosing entity)	0		
18	Class H (planned interruptions caused by another disclosing entity)	0		
19	Class I (interruptions caused by parties not included above)	0		
20	<b>Total</b>	<b>3,009</b>		
21	<b>Interruption restoration</b>			
22		<b>≤3Hrs</b>	<b>&gt;3hrs</b>	
23	Class C interruptions restored within	772	616	
24	<b>SAIFI and SAIDI by class</b>			
25		<b>SAIFI</b>	<b>SAIDI</b>	
26	Class A (planned interruptions by Transpower)	0.00	0.4	
27	Class B (planned interruptions on the network)	0.35	79.1	
28	Class C (unplanned interruptions on the network)	1.1	85.0	
29	Class D (unplanned interruptions by Transpower)	0.04	2.6	
30	Class E (unplanned interruptions of EDB owned generation)	0.00	0.0	
31	Class F (unplanned interruptions of generation owned by others)	0.00	0.0	
32	Class G (unplanned interruptions caused by another disclosing entity)	0.00	0.0	
33	Class H (planned interruptions caused by another disclosing entity)	0.00	0.0	
34	Class I (interruptions caused by parties not included above)	0.00	0.0	
35	<b>Total</b>	<b>1.49</b>	<b>167.1</b>	
36	<b>Normalised SAIFI and SAIDI</b>			
37		<b>Normalised SAIFI</b>	<b>Normalised SAIDI</b>	
38	Classes B & C (interruptions on the network)	1.45	164.1	
39	<b>10(ii): Class C Interruptions and Duration by Cause</b>			
40		<b>SAIFI</b>	<b>SAIDI</b>	
41	<b>Cause</b>			
42	Lightning	0	0.1	
43	Vegetation	0.18	16.4	
44	Adverse weather	0	0	
45	Adverse environment	0.02	1.5	
46	Third party interference	0.21	18.8	
47	Wildlife	0.07	3	
48	Human error	0.03	0.8	
49	Defective equipment	0.41	34.9	
50	Cause unknown	0.18	9.5	
51				
52	<b>10(iii): Class B Interruptions and Duration by Main Equipment Involved</b>			
53		<b>SAIFI</b>	<b>SAIDI</b>	
54	<b>Main equipment involved</b>			
55	Subtransmission lines	0.00	0.0	
56	Subtransmission cables	0.00	0.0	
57	Subtransmission other	0.00	0.0	
58	Distribution lines (excluding LV)	0.13	37.4	
59	Distribution cables (excluding LV)	0.02	2.2	
60	Distribution other (excluding LV)	0.21	39.5	
61	<b>10(iv): Class C Interruptions and Duration by Main Equipment Involved</b>			
62		<b>SAIFI</b>	<b>SAIDI</b>	
63	<b>Main equipment involved</b>			
64	Subtransmission lines	0.14	5.5	
65	Subtransmission cables	0.02	1.4	
66	Subtransmission other	0.03	0.7	
67	Distribution lines (excluding LV)	0.54	45.4	
68	Distribution cables (excluding LV)	0.15	10.9	
69	Distribution other (excluding LV)	0.22	21.1	
70	<b>10(v): Fault Rate</b>			
71		<b>Number of Faults</b>	<b>Circuit length (km)</b>	<b>Fault rate (faults per 100km)</b>
72	<b>Main equipment involved</b>			
73	Subtransmission lines	31	392	7.92
74	Subtransmission cables	2	613	0.33
75	Subtransmission other	6		
76	Distribution lines (excluding LV)	830	3738	22.20
77	Distribution cables (excluding LV)	181	3808	4.75
78	Distribution other (excluding LV)	338		
	<b>Total</b>	<b>1,388</b>		





Company Name	Vector
For Year Ended	31 March 2021
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

8	<b>10(i): Interruptions</b>		
9	<b>Interruptions by class</b>		
10		<b>Number of interruptions</b>	
11	Class A (planned interruptions by Transpower)	1	
12	Class B (planned interruptions on the network)	866	
13	Class C (unplanned interruptions on the network)	498	
14	Class D (unplanned interruptions by Transpower)	1	
15	Class E (unplanned interruptions of EDB owned generation)	0	
16	Class F (unplanned interruptions of generation owned by others)	0	
17	Class G (unplanned interruptions caused by another disclosing entity)	0	
18	Class H (planned interruptions caused by another disclosing entity)	0	
19	Class I (interruptions caused by parties not included above)	0	
20	<b>Total</b>	<b>1,366</b>	
21	<b>Interruption restoration</b>		
22	Class C interruptions restored within	≤3Hrs	>3hrs
23		262	236
24	<b>SAIFI and SAIDI by class</b>		
25		<b>SAIFI</b>	<b>SAIDI</b>
26	Class A (planned interruptions by Transpower)	0.00	0.0
27	Class B (planned interruptions on the network)	0.31	56
28	Class C (unplanned interruptions on the network)	0.83	64.5
29	Class D (unplanned interruptions by Transpower)	0.03	1.2
30	Class E (unplanned interruptions of EDB owned generation)	0.00	0.0
31	Class F (unplanned interruptions of generation owned by others)	0.00	0.0
32	Class G (unplanned interruptions caused by another disclosing entity)	0.00	0.0
33	Class H (planned interruptions caused by another disclosing entity)	0.00	0.0
34	Class I (interruptions caused by parties not included above)	0.00	0.0
35	<b>Total</b>	<b>1.17</b>	<b>121.7</b>
36	<b>Normalised SAIFI and SAIDI</b>		
37	Classes B & C (interruptions on the network)	1.14	120.6
38			
39	<b>10(ii): Class C Interruptions and Duration by Cause</b>		
40		<b>SAIFI</b>	<b>SAIDI</b>
41	<b>Cause</b>		
42	Lightning	0.00	0.1
43	Vegetation	0.09	8.5
44	Adverse weather	0.00	0.0
45	Adverse environment	0.01	0.6
46	Third party interference	0.22	20.6
47	Wildlife	0.04	2.4
48	Human error	0.04	1.0
49	Defective equipment	0.37	27.7
50	Cause unknown	0.07	3.6
51			
52	<b>10(iii): Class B Interruptions and Duration by Main Equipment Involved</b>		
53		<b>SAIFI</b>	<b>SAIDI</b>
54	<b>Main equipment involved</b>		
55	Subtransmission lines	0.00	0.0
56	Subtransmission cables	0.00	0.0
57	Subtransmission other	0.00	0.0
58	Distribution lines (excluding LV)	0.12	29.9
59	Distribution cables (excluding LV)	0.02	2.5
60	Distribution other (excluding LV)	0.17	23.7
61	<b>10(iv): Class C Interruptions and Duration by Main Equipment Involved</b>		
62		<b>SAIFI</b>	<b>SAIDI</b>
63	<b>Main equipment involved</b>		
64	Subtransmission lines	0.01	0
65	Subtransmission cables	0.03	2.3
66	Subtransmission other	0.02	0.4
67	Distribution lines (excluding LV)	0.36	28.1
68	Distribution cables (excluding LV)	0.17	12.3
69	Distribution other (excluding LV)	0.24	21.5
70	<b>10(v): Fault Rate</b>		
71		<b>Number of Faults</b>	<b>Circuit length (km)</b>
72	<b>Main equipment involved</b>		<b>Fault rate (faults per 100km)</b>
73	Subtransmission lines	2	48
74	Subtransmission cables	1	462
75	Subtransmission other	2	
76	Distribution lines (excluding LV)	223	881
77	Distribution cables (excluding LV)	107	2,291
78	Distribution other (excluding LV)	163	
79	<b>Total</b>	<b>498</b>	<b>25.31</b>
80			<b>4.67</b>



Company Name	Vector
For Year Ended	31 March 2021
Network / Sub-network Name	Northern

**SCHEDULE 10: REPORT ON NETWORK RELIABILITY**

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

sch ref

8	<b>10(i): Interruptions</b>		
9	<b>Interruptions by class</b>	<b>Number of interruptions</b>	
10	Class A (planned interruptions by Transpower)	2	
11	Class B (planned interruptions on the network)	750	
12	Class C (unplanned interruptions on the network)	890	
13	Class D (unplanned interruptions by Transpower)	1	
14	Class E (unplanned interruptions of EDB owned generation)	0	
15	Class F (unplanned interruptions of generation owned by others)	0	
16	Class G (unplanned interruptions caused by another disclosing entity)	0	
17	Class H (planned interruptions caused by another disclosing entity)	0	
18	Class I (interruptions caused by parties not included above)	0	
19	<b>Total</b>	<b>1,643</b>	
20			
21	<b>Interruption restoration</b>	<b>≤3Hrs</b>	<b>&gt;3hrs</b>
22	Class C interruptions restored within	510	380
23			
24	<b>SAIFI and SAIDI by class</b>	<b>SAIFI</b>	<b>SAIDI</b>
25	Class A (planned interruptions by Transpower)	0.00	0.90
26	Class B (planned interruptions on the network)	0.42	112.80
27	Class C (unplanned interruptions on the network)	1.49	115.00
28	Class D (unplanned interruptions by Transpower)	0.07	4.60
29	Class E (unplanned interruptions of EDB owned generation)	0.00	0.00
30	Class F (unplanned interruptions of generation owned by others)	0.00	0.00
31	Class G (unplanned interruptions caused by another disclosing entity)	0.00	0.00
32	Class H (planned interruptions caused by another disclosing entity)	0.00	0.00
33	Class I (interruptions caused by parties not included above)	0.00	0.00
34	<b>Total</b>	<b>1.98</b>	<b>233.3</b>
35			
36	<b>Normalised SAIFI and SAIDI</b>	<b>Normalised SAIFI</b>	<b>Normalised SAIDI</b>
37	Classes B & C (interruptions on the network)	1.91	227.8
38			
39	<b>10(ii): Class C Interruptions and Duration by Cause</b>		
40			
41	<b>Cause</b>	<b>SAIFI</b>	<b>SAIDI</b>
42	Lightning	0.00	0.3
43	Vegetation	0.32	27.9
44	Adverse weather	0.00	0
45	Adverse environment	0.03	2.8
46	Third party interference	0.21	16.2
47	Wildlife	0.10	3.9
48	Human error	0.02	0.4
49	Defective equipment	0.47	45.4
50	Cause unknown	0.34	18.1
51			
52	<b>10(iii): Class B Interruptions and Duration by Main Equipment Involved</b>		
53			
54	<b>Main equipment involved</b>	<b>SAIFI</b>	<b>SAIDI</b>
55	Subtransmission lines	0.00	0.0
56	Subtransmission cables	0.00	0.0
57	Subtransmission other	0.00	0.0
58	Distribution lines (excluding LV)	0.14	48.3
59	Distribution cables (excluding LV)	0.01	1.7
60	Distribution other (excluding LV)	0.27	62.7
61			
62	<b>10(iv): Class C Interruptions and Duration by Main Equipment Involved</b>		
63			
64	<b>Main equipment involved</b>	<b>SAIFI</b>	<b>SAIDI</b>
65	Subtransmission lines	0.34	13.5
66	Subtransmission cables	0.01	0.2
67	Subtransmission other	0.04	1
68	Distribution lines (excluding LV)	0.81	70.8
69	Distribution cables (excluding LV)	0.11	9
70	Distribution other (excluding LV)	0.17	20.5
71			
72	<b>10(v): Fault Rate</b>		
73			
74	<b>Main equipment involved</b>	<b>Number of Faults</b>	<b>Circuit length (km)</b>
75	Subtransmission lines	29	344
76	Subtransmission cables	1	150
77	Subtransmission other	4	
78	Distribution lines (excluding LV)	607	2,857
79	Distribution cables (excluding LV)	74	1,517
80	Distribution other (excluding LV)	175	
81	<b>Total</b>	<b>890</b>	
82			<b>Fault rate (faults per 100km)</b>
83			8.44
84			0.67
85			21.25
86			4.88

