



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

<b>Company Name</b>	Waipa Networks Limited
<b>Disclosure Date</b>	22 August 2017
<b>Disclosure Year (year ended)</b>	31 March 2017

**Templates for Schedules 1–10 excluding 5f–5g  
Template Version 4.1. Prepared 24 March 2015**

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Company Name	Waipa Networks Limited
For Year Ended	31 March 2017

**SCHEDULE 1: ANALYTICAL RATIOS**

This schedule calculates expenditure, revenue and service ratios from the information disclosed. The disclosed ratios may vary for reasons that are company specific and, as a result, must be interpreted with care. The Commerce Commission will publish a summary and analysis of information disclosed in accordance with the ID determination. This will include information disclosed in accordance with this and other schedules, and information disclosed under the other requirements of the determination. This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

7 **1(i): Expenditure metrics**

	Expenditure per GWh energy delivered to ICPs (\$/GWh)	Expenditure per average no. of ICPs (\$/ICP)	Expenditure per MW maximum coincident system demand (\$/MW)	Expenditure per km circuit length (\$/km)	Expenditure per MVA of capacity from EDB-owned distribution transformers (\$/MVA)
Operational expenditure	16,658	245	85,427	2,864	25,794
Network	8,543	125	43,812	1,469	13,228
Non-network	8,115	119	41,616	1,395	12,565
Expenditure on assets	21,635	318	110,948	3,719	33,500
Network	21,286	312	109,161	3,659	32,960
Non-network	348	5	1,787	60	540

17 **1(ii): Revenue metrics**

	Revenue per GWh energy delivered to ICPs (\$/GWh)	Revenue per average no. of ICPs (\$/ICP)
Total consumer line charge revenue	70,279	1,032
Standard consumer line charge revenue	80,326	981
Non-standard consumer line charge revenue	20,650	653,500

23 **1(iii): Service intensity measures**

Demand density	34	Maximum coincident system demand per km of circuit length (for supply) (kW/km)
Volume density	172	Total energy delivered to ICPs per km of circuit length (for supply) (MWh/km)
Connection point density	12	Average number of ICPs per km of circuit length (for supply) (ICPs/km)
Energy intensity	14,678	Total energy delivered to ICPs per average number of ICPs (kWh/ICP)

30 **1(iv): Composition of regulatory income**

	(\$000)	% of revenue
Operational expenditure	6,263	23.75%
Pass-through and recoverable costs excluding financial incentives and wash-ups	9,841	37.32%
Total depreciation	3,507	13.30%
Total revaluations	1,983	7.52%
Regulatory tax allowance	1,949	7.39%
Regulatory profit/(loss) including financial incentives and wash-ups	6,791	25.75%
<b>Total regulatory income</b>	<b>26,367</b>	

40 **1(v): Reliability**

Interruption rate	11.61	Interruptions per 100 circuit km
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Company Name	Waipa Networks Limited
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**SCHEDULE 2: REPORT ON RETURN ON INVESTMENT**

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

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

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

sch ref	2(i): Return on Investment	CY-2	CY-1	Current Year CY
		31 Mar 15 %	31 Mar 16 %	31 Mar 17 %
7	<b>2(i): Return on Investment</b>			
8				
9	<b>ROI – comparable to a post tax WACC</b>			
10	Reflecting all revenue earned	4.63%	5.35%	6.40%
11	Excluding revenue earned from financial incentives	4.63%	5.35%	6.40%
12	Excluding revenue earned from financial incentives and wash-ups	4.63%	5.35%	6.40%
13				
14	<b>Mid-point estimate of post tax WACC</b>			
15	25th percentile estimate	6.10%	5.37%	4.77%
16	75th percentile estimate	5.39%	4.66%	4.05%
17				
18				
19	<b>ROI – comparable to a vanilla WACC</b>			
20	Reflecting all revenue earned	5.41%	6.00%	6.94%
21	Excluding revenue earned from financial incentives	5.41%	6.00%	6.94%
22	Excluding revenue earned from financial incentives and wash-ups	5.41%	6.00%	6.94%
23				
24	<b>WACC rate used to set regulatory price path</b>			
25				
26	<b>Mid-point estimate of vanilla WACC</b>			
27	25th percentile estimate	6.89%	6.02%	5.31%
28	75th percentile estimate	6.17%	5.30%	4.59%
29				
30	<b>2(ii): Information Supporting the ROI</b>			
31				
32	Total opening RAB value	91,746		
33	plus Opening deferred tax	(2,901)		
34	<b>Opening RIV</b>		88,845	
35				
36	<b>Line charge revenue</b>		26,423	
37				
38	Expenses cash outflow	16,104		
39	add Assets commissioned	22,504		
40	less Asset disposals	185		
41	add Tax payments	1,351		
42	less Other regulated income	(56)		
43	<b>Mid-year net cash outflows</b>		39,830	
44				
45	<b>Term credit spread differential allowance</b>		-	
46				
47	Total closing RAB value	112,541		
48	less Adjustment resulting from asset allocation	(0)		
49	less Lost and found assets adjustment	-		
50	plus Closing deferred tax	(3,499)		
51	<b>Closing RIV</b>		109,043	
52				
53	<b>ROI – comparable to a vanilla WACC</b>			6.94%
54				
55	Leverage (%)			44%
56	Cost of debt assumption (%)			4.41%
57	Corporate tax rate (%)			28%
58				
59	<b>ROI – comparable to a post tax WACC</b>			6.40%
60				



Company Name

Waipa Networks Limited

For Year Ended

31 March 2017

**SCHEDULE 3: REPORT ON REGULATORY PROFIT**

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

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

sch ref		(\$000)
7	<b>3(i): Regulatory Profit</b>	
8	Income	
9	Line charge revenue	26,423
10	plus Gains / (losses) on asset disposals	(163)
11	plus Other regulated income (other than gains / (losses) on asset disposals)	108
12		
13	<b>Total regulatory income</b>	<b>26,367</b>
14	Expenses	
15	less Operational expenditure	6,263
16		
17	less Pass-through and recoverable costs excluding financial incentives and wash-ups	9,841
18		
19	<b>Operating surplus / (deficit)</b>	<b>10,263</b>
20		
21	less Total depreciation	3,507
22		
23	plus Total revaluations	1,983
24		
25	<b>Regulatory profit / (loss) before tax</b>	<b>8,740</b>
26		
27	less Term credit spread differential allowance	-
28		
29	less Regulatory tax allowance	1,949
30		
31	<b>Regulatory profit/(loss) including financial incentives and wash-ups</b>	<b>6,791</b>
32		
33	<b>3(ii): Pass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups</b>	<b>(\$000)</b>
34	Pass through costs	
35	Rates	89
36	Commerce Act levies	31
37	Industry levies	74
38	CPP specified pass through costs	
39	Recoverable costs excluding financial incentives and wash-ups	
40	Electricity lines service charge payable to Transpower	8,388
41	Transpower new investment contract charges	839
42	System operator services	
43	Distributed generation allowance	
44	Extended reserves allowance	
45	Other recoverable costs excluding financial incentives and wash-ups	421
46	<b>Pass-through and recoverable costs excluding financial incentives and wash-ups</b>	<b>9,841</b>
47		

Company Name

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**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

		(\$000)	
		CY-1 31 Mar 16	CY 31 Mar 17
48	<b>3(iii): Incremental Rolling Incentive Scheme</b>		
49			
50			
51	Allowed controllable opex		
52	Actual controllable opex		
53			
54	Incremental change in year		
55			
56			
57	CY-5 31 Mar 12		
58	CY-4 31 Mar 13		
59	CY-3 31 Mar 14		
60	CY-2 31 Mar 15		
61	CY-1 31 Mar 16		
62	Net incremental rolling incentive scheme		
63			
64	Net recoverable costs allowed under incremental rolling incentive scheme		
65	<b>3(iv): Merger and Acquisition Expenditure</b>		
70			
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			
71	Self-insurance allowance		

Company Name **Waipa Networks Limited**  
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**SCHEDULE 4: REPORT ON VALUE OF THE REGULATORY ASSET BASE (ROLLED FORWARD)**

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

sch ref		RAB 31 Mar 13 (\$000)	RAB 31 Mar 14 (\$000)	RAB 31 Mar 15 (\$000)	RAB 31 Mar 16 (\$000)	RAB 31 Mar 17 (\$000)
7						
8						
9						
10	Total opening RAB value	88,086	89,783	91,331	91,209	91,745
11						
12	less Total depreciation	3,220	3,301	3,400	3,430	3,507
13						
14	plus Total revaluations	755	1,374	76	534	1,983
15						
16	plus Assets commissioned	4,352	3,650	3,375	3,622	22,504
17						
18	less Asset disposals	230	175	174	188	185
19						
20	plus Lost and found assets adjustment	--	--	--	--	--
21						
22	plus Adjustment resulting from asset allocation	--	--	--	(0)	(0)
23						
24	Total closing RAB value	89,783	91,331	91,209	91,746	112,541
25						

**4(ii): Unallocated Regulatory Asset Base**

	Unallocated RAB * (\$000)	RAB (\$000)
Total opening RAB value	96,471	91,745
less Total depreciation	3,751	3,507
plus Total revaluations	2,086	1,983
plus Assets commissioned (other than below)	18,152	18,152
Assets acquired from a regulated supplier	--	--
Assets acquired from a related party	4,352	4,352
Assets commissioned	22,504	22,504
less Asset disposals (other than below)	185	185
Asset disposals to a regulated supplier	--	--
Asset disposals to a related party	--	--
Asset disposals	185	185
plus Lost and found assets adjustment	--	--
plus Adjustment resulting from asset allocation	--	(0)
Total closing RAB value	117,124	112,541

\* 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.







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**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 20

sch ref

		(\$000)	
7	<b>5a(i): Regulatory Tax Allowance</b>		
8	Regulatory profit / (loss) before tax		8,740
9			
10	plus Income not included in regulatory profit / (loss) before tax but taxable	1,180	*
11	Expenditure or loss in regulatory profit / (loss) before tax but not deductible		*
12	Amortisation of initial differences in asset values	1,613	
13	Amortisation of revaluations	269	
14			3,062
15			
16	less Total revaluations	1,983	
17	Income included in regulatory profit / (loss) before tax but not taxable		*
18	Discretionary discounts and customer rebates	1,170	
19	Expenditure or loss deductible but not in regulatory profit / (loss) before tax		*
20	Notional deductible interest	1,687	
21			4,840
22			
23	<b>Regulatory taxable income</b>		<b>6,962</b>
24			
25	less Utilised tax losses	-	
26	Regulatory net taxable income		6,962
27			
28	Corporate tax rate (%)	28%	
29	<b>Regulatory tax allowance</b>		<b>1,949</b>

\* 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	46,775	
37	less Amortisation of initial differences in asset values	1,613	
38	plus Adjustment for unamortised initial differences in assets acquired	-	
39	less Adjustment for unamortised initial differences in assets disposed	165	
40	Closing unamortised initial differences in asset values		44,997
41			
42	Opening weighted average remaining useful life of relevant assets (years)		29
43			



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

This schedule provides information on the valuation of related party transactions, in accordance with section 2.3.6 and 2.3.7 of the ID determination. This information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref

**5b(i): Summary—Related Party Transactions**

	(\$000)
7 Total regulatory income	-
8 Operational expenditure	3,551
9 Capital expenditure	5,711
10 Market value of asset disposals	
11 Other related party transactions	
12	

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

Name of related party	Related party relationship
14 Waikato Tree Services	
15 Waipa Networks - Contracting	
16	
17	
18	
19	

\* include additional rows if needed

**5b(iii): Related Party Transactions**

sch ref	Name of related party	Related party transaction type	Description of transaction	Value of transaction (\$000)	Basis for determining value
22	Waikato Tree Services	Opex	Vegetation management	873	ID clause 2.3.6(1)(f)
23	Waipa Networks - Contracting	Opex	Service interruptions and emergencies	922	ID clause 2.3.6(1)(f)
24	Waipa Networks - Contracting	Opex	Routine and corrective maintenance	822	ID clause 2.3.6(1)(f)
25	Waipa Networks - Contracting	Opex	Asset replacement and renewal	595	ID clause 2.3.6(1)(f)
26	Waipa Networks - Contracting	Opex	System operations and network support	339	ID clause 2.3.6(1)(f)
27	Waipa Networks - Contracting	Capex	Electrical Contracting Services	5,711	IM clause 2.2.11(5)(h)
28					
29					
30					
31					
32					
33					
34					
35					
36					
37					
38					

\* include additional rows if needed

Company Name **Waipa Networks Limited**  
 For Year Ended **31 March 2017**

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

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

sch ref

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

issuing party	Issue date	Pricing date	Original tenor (in years)	Coupon rate (%)	Book value at issue date (NZD)	Book value at date of financial statements (NZD)	Term Credit Spread Difference	Cost of executing an interest rate swap	Debt issue cost readjustment

\* include additional rows if needed

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

<b>Gross term credit spread differential</b>	
Total book value of interest bearing debt	
Leverage	44%
Average opening and closing RAB values	
Attribution Rate (%)	
<b>Term credit spread differential allowance</b>	

Company Name  
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**31 March 2017**

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

This schedule provides information on the allocation of operational costs. EDs 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 14 of the ID determination), and so is subject to the assurance report required by section 2.8.

sch ref	5d(i): Operating Cost Allocations	Arm's length deduction	Value allocated (\$'000s)	OVABAA allocation increase (\$'000s)	
			Electricity distribution services	Non-electricity distribution services	Total
7	<b>Service interruptions and emergencies</b>				
10	Directly attributable		922		
11	Not directly attributable				
12	<b>Total attributable to regulated service</b>		922		
13	<b>Vegetation management</b>				
14	Directly attributable		873		
15	Not directly attributable				
16	<b>Total attributable to regulated service</b>		873		
17	<b>Routine and corrective maintenance and inspection</b>				
18	Directly attributable		822		
19	Not directly attributable				
20	<b>Total attributable to regulated service</b>		822		
21	<b>Asset replacement and renewal</b>				
22	Directly attributable		595		
23	Not directly attributable				
24	<b>Total attributable to regulated service</b>		595		
25	<b>System operations and network support</b>				
26	Directly attributable		974		
27	Not directly attributable		85	174	259
28	<b>Total attributable to regulated service</b>		1,059		
29	<b>Business support</b>				
30	Directly attributable		1,633		
31	Not directly attributable		359	145	504
32	<b>Total attributable to regulated service</b>		1,992		
33	<b>Operating costs directly attributable</b>		5,819		
34	<b>Operating costs not directly attributable</b>		444	319	763
35	<b>Operational expenditure</b>		6,263		

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

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

sch ref

**5d(ii): Other Cost Allocations**

**Pass through and recoverable costs**

Pass through costs	(\$000)
Directly attributable	194
Not directly attributable	-
Total attributable to regulated service	194
Recoverable costs	
Directly attributable	9,648
Not directly attributable	-
Total attributable to regulated service	9,648

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

**Change in cost allocation 1**

Cost category	
Original allocator or line items	
New allocator or line items	

	CY-1	Current Year (CY)
Original allocation		
New allocation		
Difference		

Rationale for change

**Change in cost allocation 2**

Cost category	
Original allocator or line items	
New allocator or line items	

	CY-1	Current Year (CY)
Original allocation		
New allocation		
Difference		

Rationale for change

**Change in cost allocation 3**

Cost category	
Original allocator or line items	
New allocator or line items	

	CY-1	Current Year (CY)
Original allocation		
New allocation		
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	Waipa Networks Limited
For Year Ended	31 March 2017

**SCHEDULE 5e: REPORT ON ASSET ALLOCATIONS**

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

sch ref

**5e(i): Regulated Service Asset Values**

	Value allocated (\$000s)
<b>Electricity distribution services</b>	
<b>Subtransmission lines</b>	
Directly attributable	18,021
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>18,021</b>
<b>Subtransmission cables</b>	
Directly attributable	-
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>-</b>
<b>Zone substations</b>	
Directly attributable	-
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>-</b>
<b>Distribution and LV lines</b>	
Directly attributable	29,060
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>29,060</b>
<b>Distribution and LV cables</b>	
Directly attributable	19,473
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>19,473</b>
<b>Distribution substations and transformers</b>	
Directly attributable	25,910
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>25,910</b>
<b>Distribution switchgear</b>	
Directly attributable	13,682
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>13,682</b>
<b>Other network assets</b>	
Directly attributable	4,496
Not directly attributable	-
<b>Total attributable to regulated service</b>	<b>4,496</b>
<b>Non-network assets</b>	
Directly attributable	567
Not directly attributable	1,332
<b>Total attributable to regulated service</b>	<b>1,899</b>
<b>Regulated service asset value directly attributable</b>	<b>111,209</b>
<b>Regulated service asset value not directly attributable</b>	<b>1,332</b>
<b>Total closing RAB value</b>	<b>112,541</b>

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

		(\$000)	
		CY-1	Current Year (CY)
<b>Change in asset value allocation 1</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 2</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 3</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	Waipa Networks Limited
For Year Ended	31 March 2017

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

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

sch ref

7	<b>6a(i): Expenditure on Assets</b>		
8	Consumer connection		2,909
9	System growth		516
10	Asset replacement and renewal		1,018
11	Asset relocations		209
12	Reliability, safety and environment:		
13	Quality of supply	2,998	
14	Legislative and regulatory	-	
15	Other reliability, safety and environment	354	
16	<b>Total reliability, safety and environment</b>		3,351
17	<b>Expenditure on network assets</b>		8,003
18	Expenditure on non-network assets		131
19			
20	<b>Expenditure on assets</b>		8,134
21	plus Cost of financing		192
22	less Value of capital contributions		2,390
23	plus Value of vested assets		
24			
25	<b>Capital expenditure</b>		5,936
26	<b>6a(ii): Subcomponents of Expenditure on Assets (where known)</b>		
27	Energy efficiency and demand side management, reduction of energy losses		-
28	Overhead to underground conversion		737
29	Research and development		35
30	<b>6a(iii): Consumer Connection</b>		
31	Consumer types defined by EDB*		
32	Residential	2,573	
33	General	336	
34			
35			
36			
37	* include additional rows if needed		
38	Consumer connection expenditure		2,909
39			
40	less Capital contributions funding consumer connection expenditure	1,766	
41	<b>Consumer connection less capital contributions</b>		1,143
42	<b>6a(iv): System Growth and Asset Replacement and Renewal</b>		
43			
44			
45	Subtransmission	-	-
46	Zone substations	-	-
47	Distribution and LV lines	13	42
48	Distribution and LV cables	113	403
49	Distribution substations and transformers	168	408
50	Distribution switchgear	187	163
51	Other network assets	35	2
52	<b>System growth and asset replacement and renewal expenditure</b>	516	1,018
53	less Capital contributions funding system growth and asset replacement and renewal	44	312
54	<b>System growth and asset replacement and renewal less capital contributions</b>	472	707
55			
56	<b>6a(v): Asset Relocations</b>		
57	Project or programme*		
58			
59			
60			
61			
62			
63	* include additional rows if needed		
64	All other projects or programmes - asset relocations	209	
65	<b>Asset relocations expenditure</b>		209
66	less Capital contributions funding asset relocations	251	
67	<b>Asset relocations less capital contributions</b>		(42)

Company Name **Waipa Networks Limited**

For Year Ended **31 March 2017**

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

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

sch ref

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124  
125  
126  
127  
128

**6a(vi): Quality of Supply**

Project or programme*
Install 11kV Dropout fuses spurs & services
Replace Disconnectors
Install remote control switches
Install TMU-HTI 110kV line
Underground Lamb St Green Belt Overhead Lines
Split Tamahere into Tamahere and Pencarrow
Split Kaipaki into Kaipaki and Monavale

\* Include additional rows if needed  
 All other projects programmes - quality of supply  
**Quality of supply expenditure**  
 less Capital contributions funding quality of supply  
**Quality of supply less capital contributions**

(\$000)	(\$000)
83	
150	
162	
2,191	
133	
11	
41	
226	
	2,998
11	
	2,987

**6a(vii): Legislative and Regulatory**

Project or programme*

\* Include additional rows if needed  
 All other projects or programmes - legislative and regulatory  
**Legislative and regulatory expenditure**  
 less Capital contributions funding legislative and regulatory  
**Legislative and regulatory less capital contributions**

(\$000)	(\$000)
-	
-	
-	
-	
-	
-	
-	
-	
-	
-	

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

Project or programme*
Replace two pole sub structures
Replace Ring Main Units

\* Include additional rows if needed  
 All other projects or programmes - other reliability, safety and environment  
**Other reliability, safety and environment expenditure**  
 less Capital contributions funding other reliability, safety and environment  
**Other reliability, safety and environment less capital contributions**

(\$000)	(\$000)
133	
-	
-	
-	
-	
221	
	354
7	
	346

**6a(ix): Non-Network Assets**

**Routine expenditure**

Project or programme*

\* Include additional rows if needed  
 All other projects or programmes - routine expenditure  
**Routine expenditure**

(\$000)	(\$000)
-	
-	
-	
-	
-	
131	
	131

**Atypical expenditure**

Project or programme*

\* Include additional rows if needed  
 All other projects or programmes - atypical expenditure  
**Atypical expenditure**

(\$000)	(\$000)
-	
-	
-	
-	
-	
-	
-	
	131

**Expenditure on non-network assets**

Company Name  
For Year Ended

Waipa Networks Limited  
31 March 2017

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

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

sch ref

**6b(i): Operational Expenditure**

	(\$000)	(\$000)
7	922	
8	873	
9	822	
10	595	
11		
12		3,212
13	1,059	
14	1,992	
15		3,051
16		
17		6,263

**6b(ii): Subcomponents of Operational Expenditure (where known)**

18	Energy efficiency and demand side management, reduction of energy losses	-
19	Direct billing*	N/A
20	Research and development	N/A
21	Insurance	-
22		
23		

\* Direct billing expenditure by suppliers that directly bill the majority of their consumers

Company Name	Waipa Networks Limited
For Year Ended	31 March 2017

**SCHEDULE 7: COMPARISON OF FORECASTS TO ACTUAL EXPENDITURE**

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

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

sch ref

7	7(i): Revenue	Target (\$000) <sup>1</sup>	Actual (\$000)	% variance
8	Line charge revenue	27,021	26,423	(2%)

9	7(ii): Expenditure on Assets	Forecast (\$000) <sup>2</sup>	Actual (\$000)	% variance
10	Consumer connection	2,314	2,909	26%
11	System growth	432	516	19%
12	Asset replacement and renewal	737	1,018	38%
13	Asset relocations	97	209	115%
14	Reliability, safety and environment:			
15	Quality of supply	2,213	2,998	35%
16	Legislative and regulatory	–	–	–
17	Other reliability, safety and environment	292	354	21%
18	<b>Total reliability, safety and environment</b>	<b>2,505</b>	<b>3,351</b>	<b>34%</b>
19	Expenditure on network assets	6,085	8,003	32%
20	Expenditure on non-network assets	97	131	35%
21	Expenditure on assets	6,182	8,134	32%

22	7(iii): Operational Expenditure			
23	Service interruptions and emergencies	635	922	45%
24	Vegetation management	1,003	873	(13%)
25	Routine and corrective maintenance and inspection	976	822	(16%)
26	Asset replacement and renewal	403	595	48%
27	<b>Network opex</b>	<b>3,017</b>	<b>3,212</b>	<b>6%</b>
28	System operations and network support	1,160	1,059	(9%)
29	Business support	1,966	1,992	1%
30	<b>Non-network opex</b>	<b>3,126</b>	<b>3,051</b>	<b>(2%)</b>
31	<b>Operational expenditure</b>	<b>6,143</b>	<b>6,263</b>	<b>2%</b>

32	7(iv): Subcomponents of Expenditure on Assets (where known)			
33	Energy efficiency and demand side management, reduction of energy losses	–	–	–
34	Overhead to underground conversion	195	737	278%
35	Research and development	103	35	(66%)

37	7(v): Subcomponents of Operational Expenditure (where known)			
38	Energy efficiency and demand side management, reduction of energy losses	–	–	–
39	Direct billing	–	N/A	–
40	Research and development	–	N/A	–
41	Insurance	–	–	–

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

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



Company Name	Waipa Networks Limited
For Year Ended	31 March 2017
Network / Sub-network Name	

**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

sch ref	Voltage	Asset category	Asset class	Units	Items at start of	Items at end of	Net change	Data accuracy
					year (quantity)	year (quantity)		(1-4)
8	All	Overhead Line	Concrete poles / steel structure	No.	20,380	20,386	6	4
9	All	Overhead Line	Wood poles	No.	1,675	1,629	(46)	4
10	All	Overhead Line	Other pole types	No.	-	1	1	N/A
11	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	-	-	-	N/A
12	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	-	188	188	4
13	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	-	-	-	N/A
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	-	-	-	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	-	-	-	N/A
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	-	-	-	N/A
17	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	-	-	-	N/A
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	-	-	-	N/A
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	-	-	-	N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	-	-	-	N/A
21	HV	Subtransmission Cable	Subtransmission submarine cable	km	-	-	-	N/A
22	HV	Zone substation Buildings	Zone substations up to 66kV	No.	-	-	-	N/A
23	HV	Zone substation Buildings	Zone substations 110kV+	No.	-	-	-	N/A
24	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	-	-	-	N/A
25	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	-	-	-	N/A
26	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	-	-	-	N/A
27	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	-	-	-	N/A
28	HV	Zone substation switchgear	33kV RMU	No.	-	-	-	N/A
29	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	-	-	-	N/A
30	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	-	-	-	N/A
31	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	-	-	-	N/A
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	-	-	-	N/A
33	HV	Zone Substation Transformer	Zone Substation Transformers	No.	-	-	-	N/A
34	HV	Distribution Line	Distribution OH Open Wire Conductor	km	1,229	1,227	(2)	4
35	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	-	-	-	N/A
36	HV	Distribution Line	SWER conductor	km	-	-	-	N/A
37	HV	Distribution Cable	Distribution UG XLPE or PVC	km	122	130	7	4
38	HV	Distribution Cable	Distribution UG PILC	km	1	1	-	4
39	HV	Distribution Cable	Distribution Submarine Cable	km	-	-	-	N/A
40	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	112	114	2	4
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	-	-	-	N/A
42	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	5,024	5,019	(5)	4
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	-	-	-	N/A
44	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	86	91	5	4
45	HV	Distribution Transformer	Pole Mounted Transformer	No.	2,719	2,717	(2)	4
46	HV	Distribution Transformer	Ground Mounted Transformer	No.	703	737	34	4
47	HV	Distribution Transformer	Voltage regulators	No.	49	50	1	4
48	HV	Distribution Substations	Ground Mounted Substation Housing	No.	-	-	-	N/A
49	LV	LV Line	LV OH Conductor	km	506	506	1	4
50	LV	LV Cable	LV UG Cable	km	278	287	10	4
51	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	136	139	3	4
52	LV	Connections	OH/UG consumer service connections	No.	25,326	25,856	530	4
53	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	-	-	-	N/A
54	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	1	1	-	4
55	All	Capacitor Banks	Capacitors including controls	No.	-	-	-	N/A
56	All	Load Control	Centralised plant	Lot	3	3	-	4
57	All	Load Control	Relays	No.	18,238	18,406	168	3
58	All	Civils	Cable Tunnels	km	-	-	-	N/A





Company Name

Waipa Networks Limited

For Year Ended

31 March 2017

Network / Sub-network Name

**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

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35

Circuit length by operating voltage (at year end)

> 66kV

50kV & 66kV

33kV

SWER (all SWER voltages)

22kV (other than SWER)

6.6kV to 11kV (inclusive—other than SWER)

Low voltage (< 1kV)

Total circuit length (for supply)

Dedicated street lighting circuit length (km)

Circuit in sensitive areas (conservation areas, iwi territory etc) (km)

Overhead circuit length by terrain (at year end)

Urban

Rural

Remote only

Rugged only

Remote and rugged

Unallocated overhead lines

Total overhead length

Length of circuit within 10km of coastline or geothermal areas (where known)

Overhead circuit requiring vegetation management

Overhead (km)	Underground (km)	Total circuit length (km)
36	—	36
—	—	—
—	—	—
—	—	—
1,227	131	1,358
506	287	794
1,769	418	2,187

67	72	139
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(% of total)	
Circuit length (km)	overhead length
213	12%
1,476	83%
—	—
80	5%
—	—
—	—
1,769	100%

(% of total circuit length)	
Circuit length (km)	length
160	7%

(% of total)	
Circuit length (km)	overhead length
1,263	71%



Company Name

Waipa Networks Limited

For Year Ended

31 March 2017

Network / Sub-network Name

**SCHEDULE 9e: REPORT ON NETWORK DEMAND**

This schedule requires a summary of the key measures of network utilisation for the disclosure year (number of new connections including distributed generation, peak demand and electricity volumes conveyed).

sch ref

8

**9e(i): Consumer Connections**

9

Number of ICPs connected in year by consumer type

10

Consumer types defined by EDB\*

11

Residential
General
Unmetered
11KV

12

13

14

15

\* include additional rows if needed

16

Connections total

17

18

19

**Distributed generation**

20

Number of connections made in year

21

Capacity of distributed generation installed in year

22

**9e(ii): System Demand**

23

24

25

**Maximum coincident system demand**

26

GXP demand

27

plus Distributed generation output at HV and above

28

Maximum coincident system demand

29

less Net transfers to (from) other EDBs at HV and above

30

Demand on system for supply to consumers' connection points

31

**Electricity volumes carried**

32

Electricity supplied from GXPs

33

less Electricity exports to GXPs

34

plus Electricity supplied from distributed generation

35

less Net electricity supplied to (from) other EDBs

36

Electricity entering system for supply to consumers' connection points

37

less Total energy delivered to ICPs

38

Electricity losses (loss ratio)

39

40

Load factor

41

**9e(iii): Transformer Capacity**

42

43

Distribution transformer capacity (EDB owned)

44

Distribution transformer capacity (Non-EDB owned, estimated)

45

Total distribution transformer capacity

46

47

Zone substation transformer capacity

Number of connections (ICPs)

529
55
1
-

585

83 connections

0.28 MVA

Demand at time of maximum coincident demand (MW)

73
-
73
73

Energy (GWh)

394
-
2
1
395
376
19

4.8%

0.62

(MVA)

243
49
292

N/A

Company Name	Waipa Networks Limited
For Year Ended	31 March 2017
Network / Sub-network Name	

**SCHEDULE 10: REPORT ON NETWORK RELIABILITY**

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

sch ref

8 **10(i): Interruptions**

9 **Interruptions by class**

	Number of interruptions
10 Class A (planned interruptions by Transpower)	–
11 Class B (planned interruptions on the network)	95
12 Class C (unplanned interruptions on the network)	156
13 Class D (unplanned interruptions by Transpower)	–
14 Class E (unplanned interruptions of EDB owned generation)	–
15 Class F (unplanned interruptions of generation owned by others)	–
16 Class G (unplanned interruptions caused by another disclosing entity)	–
17 Class H (planned interruptions caused by another disclosing entity)	–
18 Class I (interruptions caused by parties not included above)	3
19 <b>Total</b>	<b>254</b>

21 **Interruption restoration**

	≤3Hrs	>3hrs
22 Class C interruptions restored within	108	48

24 **SAIFI and SAIDI by class**

	SAIFI	SAIDI
25 Class A (planned interruptions by Transpower)	–	–
26 Class B (planned interruptions on the network)	0.18	46.1
27 Class C (unplanned interruptions on the network)	1.68	158.1
28 Class D (unplanned interruptions by Transpower)	–	–
29 Class E (unplanned interruptions of EDB owned generation)	–	–
30 Class F (unplanned interruptions of generation owned by others)	–	–
31 Class G (unplanned interruptions caused by another disclosing entity)	–	–
32 Class H (planned interruptions caused by another disclosing entity)	–	–
33 Class I (interruptions caused by parties not included above)	0.01	0.4
34 <b>Total</b>	<b>1.86</b>	<b>204.6</b>

36 **Normalised SAIFI and SAIDI**

	Normalised SAIFI	Normalised SAIDI
37 Classes B & C (interruptions on the network)	1.86	204.2

39 **Quality path normalised reliability limit**

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

41 \* not applicable to exempt EDBs

Company Name	Waipa Networks Limited
For Year Ended	31 March 2017
Network / Sub-network Name	

**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.

42 **10(ii): Class C Interruptions and Duration by Cause**

Cause	SAIFI	SAIDI
45 Lightning	0.15	5.2
46 Vegetation	0.19	9.0
47 Adverse weather	0.19	15.3
48 Adverse environment	0.05	0.8
49 Third party interference	0.35	48.1
50 Wildlife	0.02	0.6
51 Human error	0.11	2.4
52 Defective equipment	0.42	69.9
53 Cause unknown	0.22	7.0

55 **10(iii): Class B Interruptions and Duration by Main Equipment Involved**

Main equipment involved	SAIFI	SAIDI
58 Subtransmission lines	-	-
59 Subtransmission cables	-	-
60 Subtransmission other	-	-
61 Distribution lines (excluding LV)	0.15	42.2
62 Distribution cables (excluding LV)	0.00	1.1
63 Distribution other (excluding LV)	0.03	2.8

64 **10(iv): Class C Interruptions and Duration by Main Equipment Involved**

Main equipment involved	SAIFI	SAIDI
67 Subtransmission lines	-	-
68 Subtransmission cables	-	-
69 Subtransmission other	-	-
70 Distribution lines (excluding LV)	1.63	155.3
71 Distribution cables (excluding LV)	-	-
72 Distribution other (excluding LV)	0.06	2.9

73 **10(v): Fault Rate**

Main equipment involved	Number of Faults	Circuit length (km)	Fault rate (faults per 100km)
74 Subtransmission lines	-	-	-
75 Subtransmission cables	-	-	-
76 Subtransmission other	-	-	-
77 Distribution lines (excluding LV)	150	1,227	12.23
78 Distribution cables (excluding LV)	-	131	-
79 Distribution other (excluding LV)	8	-	-
80 Total	158	-	-