COMMERCE COMMISSION NEW ZEALAND						
EDB Information Disclosure Requirements Information Templates for Schedules 1–10						
Company Name Disclosure Date Disclosure Year (year ended)	Waipa Networks Limited 28 August 2019 31 March 2019					
	nedules 1–10 excluding 5f–5g .1. Prepared 21 December 2017					

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Company Name	Waipa Networks Limited
For Year Ended	31 March 2019

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.

7	1(i): Expenditure metrics			Expenditure per		Expenditure per MVA
8		Expenditure per GWh energy delivered to ICPs (\$/GWh)	Expenditure per average no. of ICPs (\$/ICP)	MW maximum coincident system demand (\$/MW)	Expenditure per km circuit length (\$/km)	of capacity from EDB- owned distribution transformers (\$/MVA)
9	Operational expenditure	20,494	300	108,711	3,590	30,452
0	Network	9,627	141	51,063	1,686	14,304
1 2	Non-network	10,868	159	57,648	1,903	16,148
2 3	Expenditure on assets	16,292	239	86,422	2,854	24,208
4	Network	15,491	227	82,172	2,713	23,018
5	Non-network	801	12	4,250	140	1,190
; 7	1(ii): Revenue metrics					
8		Revenue per GWh energy delivered to ICPs (\$/GWh)	Revenue per average no. of ICPs (\$/ICP)			
5 9	Total consumer line charge revenue	68,453	1,003	1		
,	Standard consumer line charge revenue	78,784	954			
í	Non-standard consumer line charge revenue	19,171	649,000			
2		13,171	0.0,000	1		
3 4	1(iii): Service intensity measures					
5	Demand density	33	Maximum coinc	ident system deman	d per km of circuit le	ength (for supply) (kW
;	Volume density	175	Total energy del	ivered to ICPs per kn	n of circuit length (fe	or supply) (MWh/km)
ľ	Connection point density	12	Average number	r of ICPs per km of ci	rcuit length (for sup	ply) (ICPs/km)
	Energy intensity	14,648	Total energy del	ivered to ICPs per av	erage number of IC	Ps (kWh/ICP)
9)	1(iv): Composition of regulatory income					
			(\$000)	% of revenue		
	Operational expenditure		8,007	30.14%	<u> </u>	
	Pass-through and recoverable costs excluding financial inc	centives and wash-ups	8,966	33.75%		
	Total depreciation		4,017	15.12%		
	Total revaluations		1,680	6.33%		
	Regulatory tax allowance		1,824	6.87%		
	Regulatory profit/(loss) including financial incentives and	wash-ups	5,429	20.44%		
1	Total regulatory income		26,562			
,	1(v): Reliability					

	Company I		a Networks Lim	ited
	For Year E	Ended	31 March 2019	
CHI	EDULE 2: REPORT ON RETURN ON INVESTMENT			
	edule requires information on the Return on Investment (ROI) for the EDB relative to the Commerce Commiss			
	te their ROI based on a monthly basis if required by clause 2.3.3 of the ID Determination or if they elect to. If a	in EDB makes this election, in	formation supporting	g this calculation
	Provided in 2(iii). ust provide explanatory comment on their ROI in Schedule 14 (Mandatory Explanatory Notes).			
	ormation is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is	subject to the assurance repo	ort required by section	on 2.8.
ref				
7	2(i): Return on Investment	CY-2	CY-1	Current Year CY
8		31 Mar 17	31 Mar 18	31 Mar 19
9	ROI – comparable to a post tax WACC	%	%	%
0	Reflecting all revenue earned	6.40%	4.94%	4.46%
1	Excluding revenue earned from financial incentives	6.40%	4.94%	4.46%
2	Excluding revenue earned from financial incentives and wash-ups	6.40%	4.94%	4.46%
3				
4	Mid-point estimate of post tax WACC	4.77%	5.04%	4.75%
5	25th percentile estimate	4.05%	4.36%	4.07%
5	75th percentile estimate	5.48%	5.72%	5.43%
7				
8	POL - comparable to a vanilla WACC			
9	ROI – comparable to a vanilla WACC	6.94%	E E 40/	4.070
0	Reflecting all revenue earned		5.54%	4.97%
1	Excluding revenue earned from financial incentives	6.94%	5.54%	4.97%
2 3	Excluding revenue earned from financial incentives and wash-ups	6.94%	5.54%	4.97%
4	WACC rate used to set regulatory price path	T		
5				
5	Mid-point estimate of vanilla WACC	5.31%	5.60%	5.26%
7	25th percentile estimate	4.59%	4.92%	4.58%
, 8	75th percentile estimate	6.03%	6.29%	5.94%
9		0.0370	0.2370	5.54/
0	2(ii): Information Supporting the ROI		(\$000)	
1				
2	Total opening RAB value	113,558		
3	plus Opening deferred tax	(4,146)		
4	Opening RIV		109,413	
5		-		
	Line charge revenue		26,744	
7				
8	Expenses cash outflow	16,973		
9	add Assets commissioned	3,238		
2	less Asset disposals	284		
1 2	add Tax payments	1,210		
	less Other regulated income	(182)	21,319	
3 4	Mid-year net cash outflows		21,319	
	Term credit spread differential allowance	Г	_	
5				
7	Total closing RAB value	114,175		
3	less Adjustment resulting from asset allocation	(0)		
9	less Lost and found assets adjustment	(0)		
0	plus Closing deferred tax	(4,759)		
	Closing RIV	(1,1.55)	109,417	
2				
3	ROI – comparable to a vanilla WACC			4.97%
4	Leverage (%)			42%
4 5	Ecverage (76)			
	Cost of debt assumption (%)			4.557
5				
5	Cost of debt assumption (%)			4.33%

				-					
				Company Name	Wa	ipa Networks Lin			
_				For Year Ended		31 March 2019			
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 re	f	Monthly DOI							
61 62	2(iii): Information Supporting the								
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 68	May					-	-		
69 70	June July						_		
71	August								
72	September						-		
73	October						_		
74	November						-		
75	December						-		
76	January						-		
77	February						-		
78 79	March Total			_		_	-		
80	lotal								
81 82	Tax payments						N/A		
83 84	Term credit spread differential allow	vance					N/A		
85	Closing RIV						N/A		
86 87									
88 89	Monthly ROI – comparable to a vanilla						N/A		
90 91	Monthly ROI – comparable to a post ta						N/A		
92 93	2(iv): Year-End ROI Rates for Con	nparison Purposes							
94 95	Year-end ROI – comparable to a vanilla	a WACC					4.89%		
96 97	Year-end ROI – comparable to a post t	ax WACC					4.38%		
98 99	* these year-end ROI values are compared to the second sec		n pre 2012 disclosures b	y EDBs and do not rep	resent the Commi	ssion's current view o	n ROI.		
100 101	2(v): Financial Incentives and Wa	ash-Ups							
102	Net recoverable costs allowed under		tive scheme			-			
103	Purchased assets – avoided transmis								
104	Energy efficiency and demand incent	tive allowance					ł		
105	Quality incentive adjustment						-		
106 107 108	Other financial incentives Financial incentives					L	-		
108 109	Impact of financial incentives on ROI						<u> </u>		
110 111	Input methodology claw-back						Ţ		
112	CPP application recoverable costs								
113	Catastrophic event allowance								
114	Capex wash-up adjustment						1		
115	Transmission asset wash-up adjustm	ent							
116	2013–15 NPV wash-up allowance								
117	Reconsideration event allowance								
118 119	Other wash-ups Wash-up costs								
120									
121	Impact of wash-up costs on ROI						-		

		Company Name	Waipa Networks Limited
		For Year Ended	31 March 2019
SCH	HEDUL	E 3: REPORT ON REGULATORY PROFIT	
		equires information on the calculation of regulatory profit for the EDB for the disclosure year. All EDBs must complete	e all sections and provide explanatory comment on
their	regulatory	profit in Schedule 14 (Mandatory Explanatory Notes).	
This i	nformatio	n 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.
h ref			
7	3(i): R	egulatory Profit	(\$000)
8		Income	
9		Line charge revenue	26,744
10	plus	Gains / (losses) on asset disposals	(284)
11	plus	Other regulated income (other than gains / (losses) on asset disposals)	102
12			
13		Total regulatory income	26,562
14		Expenses	
15	less	Operational expenditure	8,007
16	1000		
17	less	Pass-through and recoverable costs excluding financial incentives and wash-ups	8,966
18	1000		6,500
19		Operating surplus / (deficit)	9,590
20			
21	less	Total depreciation	4,017
22			
23	plus	Total revaluations	1,680
24			
25		Regulatory profit / (loss) before tax	7,253
26			
27	less	Term credit spread differential allowance	-
28			
29	less	Regulatory tax allowance	1,824
30			
31		Regulatory profit/(loss) including financial incentives and wash-ups	5,429
32			
33	3(ii): P	ass-through and Recoverable Costs excluding Financial Incentives and Wash-Ups	(\$000)
34		Pass through costs	
35		Rates	76
36		Commerce Act levies	26
37		Industry levies	75
38		CPP specified pass through costs	
39		Recoverable costs excluding financial incentives and wash-ups	
40		Electricity lines service charge payable to Transpower	8,204
41		Transpower new investment contract charges	585
42		System operator services	
43		Distributed generation allowance	
44		Extended reserves allowance	
45		Other recoverable costs excluding financial incentives and wash-ups	
46		Pass-through and recoverable costs excluding financial incentives and wash-ups	8,966

		Company Name	Waipa Networks Li	mited
		For Year Ended	31 March 201)
S		DRT ON REGULATORY PROFIT		
Th th	is schedule requires inform eir regulatory profit in Sche	ation on the calculation of regulatory profit for the EDB for the disclosure year. All EDBs must complete al dule 14 (Mandatory Explanatory Notes). lited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the ass		
sch r	ef			
48	3(iii): Increme	ntal Rolling Incentive Scheme	(\$	000)
49	-()		CY-1	сү
50			31 Mar 18	31 Mar 19
51	Allowed co	itrollable opex		
52	Actual cont	rollable opex		
53				
54 55	Incrementa	change in year		
56			Previous years' incremental change	Previous years' incremental change adjusted for inflation
57	CY-5	31 Mar 14		
58	CY-4	31 Mar 15		
59	CY-3	31 Mar 16		
60	CY-2	31 Mar 17		
61	CY-1	31 Mar 18		
62	Net incremen	tal rolling incentive scheme		-
63				
64	Net recovera	ble costs allowed under incremental rolling incentive scheme		-
65	3(iv): Merger ar	d Acquisition Expenditure		
70				(\$000)
66	Merger and	acquisition expenditure		_
67				
68		nmentary on the benefits of merger and acquisition expenditure to the electricity distribution business, incl in Schedule 14 (Mandatory Explanatory Notes)	uding required disclosures in	accordance with
69	3(v): Other Disc	losures		
70	. ,			(\$000)
71	Self-insurar	ce allowance		

IEDULE 4: REPORT ON VALUE OF THE REGULATORY ASSET BASE (RO	LLED FORWARD)		ompany Name For Year Ended	· · · · ·	a Networks Lim 31 March 2019	ited
chedule requires information on the calculation of the Regulatory Asset Base (RAB) value to the end of this disc must provide explanatory comment on the value of their RAB in Schedule 14 (Mandatory Explanatory Notes). T red by section 2.8.	losure year. This informs the ROI calculation in Schedu		ion 1.4 of the ID deter	rmination), and so i	s subject to the assu	rance report
4(i): Regulatory Asset Base Value (Rolled Forward)	for year ended	RAB 31 Mar 15 (\$000)	RAB 31 Mar 16 (\$000)	RAB 31 Mar 17 (\$000)	RAB 31 Mar 18 (\$000)	RAB 31 Mar 19 (\$000)
Total opening RAB value		91,331	91,209	91,746	(\$000) 112,541	(\$000)
less Total depreciation		3,400	3,430	3,507	3,907	4,
plus Total revaluations		76	534	1,983	1,236	1,6
plus Assets commissioned		3,376	3,622	22,504	3,865	3,2
less Asset disposals		174	188	185	177	:
plus Lost and found assets adjustment		(0)	(0)	-	-	
plus Adjustment resulting from asset allocation			-	-	-	
Total closing RAB value		91,209	91,746	112,541	113,558	114,1
A(ii), Linellocated Regulatory Accet Race						
4(ii): Unallocated Regulatory Asset Base						
			Unallocated (\$000)	(\$000)	RAE (\$000)	(\$000)
Total opening RAB value				(\$000) 117,941		(\$000) 113,
Total opening RAB value				(\$000)		(\$000) 113,
Total opening RAB value less Total depreciation plus Total revaluations				(\$000) 117,941		(\$000) 113, 4,
Total opening RAB value less Total depreciation plus		_[(\$000) 117,941 4,272		
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier		F	(\$000)	(\$000) 117,941 4,272	(\$000)	(\$000) 113, 4,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party		Ę	(\$000)	(\$000) 117,941 4,272 1,745	(\$000) [[(\$000) 113, 4, 1,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party Assets commissioned		Ę	(\$000)	(\$000) 117,941 4,272	(\$000)	(\$000) 113, 4, 1,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party		[(\$000)	(\$000) 117,941 4,272 1,745	(\$000)	(\$000) 113, 4, 1,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party Assets commissioned less		[(\$000)	(\$000) 117,941 4,272 1,745	(\$000)	(\$000) 113, 4, 1,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party Assets commissioned less Asset disposals (other than below) Asset disposals to a regulated supplier Asset disposals to a regulated party		[(\$000)	(\$000) 117,941 4,272 1,745 3,243	(\$000)	(\$000) 113, 4,) 1, 1, 3,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party Assets commissioned less Asset disposals (other than below) Asset disposals (other than below) Asset disposals to a regulated supplier		[(\$000)	(\$000) 117,941 4,272 1,745	(\$000)	(\$000) 113, 4,) 1, 1, 3,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party Assets commissioned less Asset disposals (other than below) Asset disposals to a regulated supplier Asset disposals to a regulated party			(\$000)	(\$000) 117,941 4,272 1,745 3,243	(\$000)	(\$000) 113, 4, 1, 1, 3,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below) Assets acquired from a regulated supplier Assets acquired from a related party Assets commissioned less Asset disposals (other than below) Asset disposals to a regulated supplier Asset disposals to a regulated party Asset disposals to a related party Asset disposals		Ę	(\$000)	(\$000) 117,941 4,272 1,745 3,243	(\$000)	(\$000) 113, 4,) 1, 1, 3,
Total opening RAB value less Total depreciation plus Total revaluations plus Assets commissioned (other than below)) Assets acquired from a regulated supplier Assets acquired from a related party Assets commissioned less Asset disposals (other than below)) Asset disposals to a regulated supplier Asset disposals to a regulated party Asset disposals plus Lost and found assets adjustment		Ę	(\$000)	(\$000) 117,941 4,272 1,745 3,243	(\$000)	(\$000) 113, 4,

		Company Name	Waip	a Networks Lir	nited
		For Year Ended		31 March 2019	l.
s	CHEDULE 4: REPORT ON VALUE OF THE REGULATORY ASSET BASE (ROLLED FORWARD)	· · · · · ·			
	is 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.				
	B 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 det	ermination), and so	is subject to the ass	urance report
req	quired by section 2.8.				
sch rej	6				
51					
51					
52	4(iii): Calculation of Revaluation Rate and Revaluation of Assets				
53					
54	CPI ₄				1,026
55	CPI ₄ -4				1,011
56	Revaluation rate (%)				1.48%
57				_	
58		Unallocate			4B (*****
59		(\$000)	(\$000)	(\$000)	(\$000)
60 61	Total opening RAB value less Opening value of fully depreciated, disposed and lost assets	<u>117,941</u> 318		113,558 318	
61 62	less Opening value of fully depreciated, disposed and lost assets	318		318	
63	Total opening RAB value subject to revaluation	117,623		113,240	Ì
64	Total revuluations		1,745		1,680
65		-	, -	_	
66	4(iv): Roll Forward of Works Under Construction				
		Unallocated v	vorks under		
67		constru		Allocated works u	nder construction
68	Works under construction—preceding disclosure year		514		514
69	plus Capital expenditure	3,885		3,880	
70		3,243		3,238	
71	plus Adjustment resulting from asset allocation	-		-	
72	Works under construction - current disclosure year		1,157		1,157
73					
74	Highest rate of capitalised finance applied				
75					

							C	ompany Name	Waip	a Networks Lim	ited
								For Year Ended		31 March 2019	
Ъ	HEDULE 4: REPORT ON VALUE OF THE R	EGULATORY	ASSET BASE		WARD)						
	schedule requires information on the calculation of the Regulato					alculation in School	ile 2				
	must provide explanatory comment on the value of their RAB in							on 1.4 of the ID det	termination), and so	is subject to the assu	irance report
	red by section 2.8.								,,		
	4(v): Regulatory Depreciation										
								Unallocat	ed RAB *	RA	в
							_	(\$000)	(\$000)	(\$000)	(\$000)
	Depreciation - standard							3,764		3,764	
	Depreciation - no standard life assets						_	508		253	
	Depreciation - modified life assets						-	-		-	
	Depreciation - alternative depreciation in accorda	ince with CPP					L	-		-	
	Total depreciation								4,272	L	
	4(vi): Disclosure of Changes to Depreciation	Profiles						(\$000 L	unless otherwise spe	cified)	
	()										
										Closing RAB value	
									Depreciation		Closing RAB
									charge for the	standard'	under 'stan
	Asset or assets with changes to depreciation*				Rease	on for non-standard	depreciation (text er	ntry)	period (RAB)	depreciation	depreciat
	* include additional rows if needed										
	4(vii): Disclosure by Asset Category										
						(\$000 unless oth	erwise specified)				
		Subtransmission	Subtransmission		Distribution and	Distribution and	Distribution substations and	Distribution	Other network	Non-network	
		lines	cables	Zone substations	LV lines	LV cables	transformers	switchgear	assets	assets	Total
	Total opening RAB value	18,369	-	-	28,349	19,885	26,861	13,899	4,281	1,915	11
	less Total depreciation	253	_	-	1,133	672	899	530	278	253	
		273	-	-	421	295	395	206	64	28	
	plus Total revaluations		-	-	382	326	1,504	584	8	313	
	plus Total revaluations plus Assets commissioned	121		-	-	-	232	-	-	52	
		121	-			-	-	-	-	-	
	plus Assets commissioned less Asset disposals plus Lost and found assets adjustment		-	-	-						
	plus Assets commissioned less Asset disposals plus Lost and found assets adjustment plus Adjustment resulting from asset allocation		-	-	_	-	-	-	-	-	
	plus Assets commissioned less Asset disposals plus Lost and found assets adjustment plus Adjustment resulting from asset allocation plus Asset category transfers				-	-	-	-	-	-	
	plus Assets commissioned less Asset disposals plus Lost and found assets adjustment plus Adjustment resulting from asset allocation		-	-	_	-					11
	plus Assets commissioned less Asset disposals plus Lost and found assets adjustment plus Adjustment resulting from asset allocation plus Asset category transfers Total closing RAB value				-	-	-	-	-	-	11
	plus Assets commissioned less Asset disposals plus Lost and found assets adjustment plus Adjustment resulting from asset allocation plus Asset category transfers Total closing RAB value			-	_ _ 28,018	_ _ 19,834	- 27,628	_ 14,159	- 4,074	_ 1,951	
	plus Assets commissioned less Asset disposals plus Lost and found assets adjustment plus Adjustment resulting from asset allocation plus Asset category transfers Total closing RAB value				-	-	-	-	-	-	114 (years) (years)

		Company Name	Waipa Networks Limited
		For Year Ended	31 March 2019
SC		5a: REPORT ON REGULATORY TAX ALLOWANCE	
This prof	schedule requ it). EDBs must	ires information on the calculation of the regulatory tax allowance. This information is used to calculate regul provide explanatory commentary on the information disclosed in this schedule, in Schedule 14 (Mandatory E part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to	xplanatory Notes).
7	5a(i): Re	gulatory Tax Allowance	(\$000)
8		legulatory profit / (loss) before tax	7,253
9			
10	plus	Income not included in regulatory profit / (loss) before tax but taxable	1,382 *
11		Expenditure or loss in regulatory profit / (loss) before tax but not deductible	*
12		Amortisation of initial differences in asset values	1,601
13		Amortisation of revaluations	415
14			3,398
15	,		1 500
16 17	less	Total revaluations	1,680
17		Income included in regulatory profit / (loss) before tax but not taxable Discretionary discounts and customer rebates	509
18 19		Expenditure or loss deductible but not in regulatory profit / (loss) before tax	*
20		Notional deductible interest	1,948
21			4,137
22			
23	1	tegulatory taxable income	6,513
24			
25	less	Utilised tax losses	
26		Regulatory net taxable income	6,513
27 28		Corporate tax rate (%)	28%
28 29		tegulatory tax allowance	1,824
30			1,024
31	* Work	ngs to be provided in Schedule 14	
32	5a(ii): D	isclosure of Permanent Differences	
33		In Schedule 14, Box 5, provide descriptions and workings of items recorded in the asterisked categories in S	chedule 5a(i).
34	5a(iii): A	mortisation of Initial Difference in Asset Values	(\$000)
35			
36		Opening unamortised initial differences in asset values	43,228
37	less	Amortisation of initial differences in asset values	1,601
38	plus	Adjustment for unamortised initial differences in assets acquired	
39	less	Adjustment for unamortised initial differences in assets disposed	8
40 41		Closing unamortised initial differences in asset values	41,619
41 42 43		Opening weighted average remaining useful life of relevant assets (years)	27

		C	Waina Notworks	Limitod
		Company Name For Year Ended	Waipa Networks 31 March 20	
sc		5a: REPORT ON REGULATORY TAX ALLOWANCE	SI Waren 2	515
This pro This	s schedule req fit). EDBs mus s information i	uires information on the calculation of the regulatory tax allowance. This information is used to calculate re t provide explanatory commentary on the information disclosed in this schedule, in Schedule 14 (Mandato s part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subjec	ry Explanatory Notes).	
ch re				
44	5a(iv):	Amortisation of Revaluations		(\$000)
45 46		Opening sum of RAB values without revaluations	104,470	
47			10 19 11 0	
48		Adjusted depreciation	3,602	
49		Total depreciation	4,017	
50		Amortisation of revaluations		415
51				
52	5a(v): F	Reconciliation of Tax Losses		(\$000)
53				
54		Opening tax losses		
55	plus	Current period tax losses		
56 57	less	Utilised tax losses		1
57		Closing tax losses	L	
58	5a(vi):	Calculation of Deferred Tax Balance		(\$000)
59				
60		Opening deferred tax	(4,146)	
61				
62	plus	Tax effect of adjusted depreciation	1,009	
63				
64	less	Tax effect of tax depreciation	1,214	
65 65		T	(25)	
66 67	plus	Tax effect of other temporary differences*	(26)	
68	less	Tax effect of amortisation of initial differences in asset values	448	
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	(67)	
73				
74 75	plus	Deferred tax cost allocation adjustment	0	
75 76		Closing deferred tax	Г	(4,759)
				(4,733)
77				
78	5a(vii):	Disclosure of Temporary Differences		
	. ,	In Schedule 14, Box 6, provide descriptions and workings of items recorded in the asterisked category in	Schedule 5a(vi) (Tax effect of o	ther temporary
79		differences).		
80				
81	5a(viii)	Regulatory Tax Asset Base Roll-Forward		
82 82		Ononing sum of regulatory tax accet values	45.040	(\$000)
83 84		Opening sum of regulatory tax asset values	45,812	
84 95	less	Tax depreciation	4,337	
85 86	plus Iess	Regulatory tax asset value of assets commissioned Regulatory tax asset value of asset disposals	4,006	
87	plus	Lost and found assets adjustment		
88	plus	Adjustment resulting from asset allocation	-	
89	plus	Other adjustments to the RAB tax value	-	
90		Closing sum of regulatory tax asset values		45,437

		Company Name	Waipa Networks Limited	d
		For Year Ended	31 March 2019	
HEDULE 5	b: REPORT ON RELATED I	PARTY TRANSACTIONS		
schedule provide	es information on the valuation of related	d party transactions, in accordance with clause 2.3	.6 of the ID determination.	
information is pa	art of audited disclosure information (as	defined in clause 1.4 of the ID determination), and	so is subject to the assurance report requi	ired by clause 2.
<i>,</i>				
f				
5b(i): Sum	mary—Related Party Transa	ctions	(\$000)	(\$000)
Тс	otal regulatory income			
Μ	larket value of asset disposals			
			1.042	٦
	Service interruptions and emergencies Vegetation management		1,043	-
	Routine and corrective maintenance an	d inspection	1,088	
	Asset replacement and renewal (opex)		680	
	Network opex			3
	Business support			_
	System operations and network suppor	t	475	
0	perational expenditure			4
	Consumer connection System growth		2,651	
	Asset replacement and renewal (capex)		799	
	Asset relocations		190	
	Quality of supply		857	
	Legislative and regulatory		_	
	Other reliability, safety and environmen	ıt	227	
	Expenditure on non-network assets			
	Expenditure on assets			4
	Cost of financing Value of capital contributions			
	Value of vested assets			
Ca	apital Expenditure			4
Тс	otal expenditure			9
0	ther related party transactions			
5b(iii). Tot	al Opex and Capex Related I	Party Transactions		
5.5(). 100				
				Total value
		Nature of opex or capex service		transaction
_	Name of related party	provided		(\$000)
W	/aikato Tree Services	Vegetation management		94
				1,04
W	aipa Networks - Contracting	Service interruptions and emergencies		
w	/aipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in	ispection	1,08
	/aipa Networks - Contracting /aipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex)	ispection	1,08
	/aipa Networks - Contracting /aipa Networks - Contracting /aipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support	nspection	1,08 68 47
	faipa Networks - Contracting Jaipa Networks - Contracting Jaipa Networks - Contracting Jaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection	nspection	1,08 68 47 2,65
	Yaipa Networks - Contracting Yaipa Networks - Contracting Yaipa Networks - Contracting Yaipa Networks - Contracting Yaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection System growth	nspection	1,08 68 47 2,65 16
	faipa Networks - Contracting Jaipa Networks - Contracting Jaipa Networks - Contracting Jaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection	nspection	1,08 68 47 2,65 16 75
	Yaipa Networks - Contracting Yaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection System growth Asset replacement and renewal (capex)	nspection	1,08 68 47 2,65 16 79
	Yaipa Networks - Contracting Yaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection System growth Asset replacement and renewal (capex) Asset relocations	nspection	1,08 68 47 2,65 16 79
	Yaipa Networks - Contracting Yaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection System growth Asset replacement and renewal (capex) Asset replacement and renewal (capex) Asset replacement and renewal (capex) Quality of supply	nspection	1,08 68 47 2,65 16 75 16 88 88 88 88 -
	Yaipa Networks - Contracting Yaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection System growth Asset replacement and renewal (capex) Asset replacement and renewal (capex) Asset replacement and renewal (capex) Quality of supply Legislative and regulatory	nspection	1,08 68 47 2,65 16 79 19 85 85 -
	Yaipa Networks - Contracting Yaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection System growth Asset replacement and renewal (capex) Asset replacement and renewal (capex) Asset replacement and renewal (capex) Quality of supply Legislative and regulatory	nspection	1,08 68 47 2,65 16 79 19 85 85 -
	Yaipa Networks - Contracting Yaipa Networks - Contracting	Service interruptions and emergencies Routine and corrective maintenance and in Asset replacement and renewal (opex) System operations and network support Consumer connection System growth Asset replacement and renewal (capex) Asset replacement and renewal (capex) Asset replacement and renewal (capex) Legislative and regulatory Other reliability, safety and environment	nspection	1,08 68 47 2,65 16 79 19 85

									Company Nama	Waipa Netw	orke Limited
									Company Name For Year Ended	31 Mar	
									Tor Tear Ended	01.1101	2013
			5c: REPORT ON TERM CREDIT SPREAD DIFFEREI				•	the debt and see a			
			only to be completed if, as at the date of the most recently published financial is part of audited disclosure information (as defined in section 1.4 of the ID de					ying debt and non-qi	anitying debt) is grea	ater than live years.	
50	n ref										
	7										
	8	5c(i): Q	ualifying Debt (may be Commission only)								
	9										
									Book value at		
1	0		Issuing party	Issue date	Pricing date	Original tenor (in years)	Coupon rate (%)	Book value at issue date (NZD)	date of financial statements (NZD)	Term Credit	Debt issue cost readjustment
1]		issue date	Filling date	yearsy	coupon rate (76)		statements (NZD)	Spread Difference	reaujustment
	2										
1											
1											
1	5 6	ι	* include additional rows if needed						_	_	_
1											
1	8	5c(ii): A	Attribution of Term Credit Spread Differential								
1		6	and the second difference is a				l i i i i i i i i i i i i i i i i i i i				
2		Gr	oss term credit spread differential			-					
	2		Total book value of interest bearing debt]					
2	3		Leverage		42%						
2			Average opening and closing RAB values								
2		At	tribution Rate (%)			_					
2	6 7	Te	rm credit spread differential allowance			_					

			Company Name	Waip	oa Networks Lii	nited
			For Year Ended		31 March 2019)
S	CHEDULE 5d: REPORT ON COST ALLOCATIONS					
-	his schedule provides information on the allocation of operational costs. EDBs must provide explanatory comment on their cost allocation in	Schedule 14 (Manda	tory Explanatory Note	s), including on the i	mpact of any reclass	sifications.
	his information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance			-,,		
sch i	ef I					
7	5d(i): Operating Cost Allocations					
8			Value alloca	ted (\$000s)		
0			Electricity	Non-electricity		
		Arm's length	distribution	distribution		OVABAA allocation
9		deduction	services	services	Total	increase (\$000s)
10	Service interruptions and emergencies					
11	Directly attributable		1,043			
12					-	
13	Total attributable to regulated service		1,043			
14	Vegetation management					
15	Directly attributable		941			.
16					-	
17	Total attributable to regulated service		941			
18	Routine and corrective maintenance and inspection					
19			1,097			· · · · · · · · · · · · · · · · · · ·
20					-	
21			1,097			
22						
23			680			
24					-	
25			680			
26						
27			1,771 120	256	376	1
28				256	3/6	L
29			1,891			
30 31			434			
32			1,921	417	2,338	
33			2,355	417	2,550	· · · · · · · · · · · · · · · · · · ·
34			,			
35			5,966			
36		-	2,041	673	2,714	-
37			8,007			
38						

		Company Name	Waipa I	Networks Limited
		For Year Ended	31	March 2019
CHE	OULE 5d: REPORT ON COST ALLOCATIONS			
nis scheo	lule provides information on the allocation of operational costs. EDB	s must provide explanatory comment on their cost allocation in Schedule 14 (Mandatory Explanatory Notes), incl	uding on the impa	ict of any reclassification
his infor	nation 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.		
ref				
⁹ 50	l(ii): Other Cost Allocations			
2	Pass through and recoverable costs	(\$000)		
	Pass through costs			
2	Directly attributable	177-		
	Not directly attributable	-		
1	Total attributable to regulated service	177		
5	Recoverable costs			
5	Directly attributable	8,785		
7	Not directly attributable			
8	Total attributable to regulated service	8,785		
9				
50	l(iii): Changes in Cost Allocations* †			
ı			(\$000)	
	Change in cost allocation 1		CY-1 Cu	rrent Year (CY)
	Cost category	Original allocation		
!	Original allocator or line items	New allocation		
	New allocator or line items	Difference	-	-
5				
7	Rationale for change			
3 9				
			(\$000)	
	Change in cost allocation 2			rrent Year (CY)
	Cost category	Original allocation		
	Original allocator or line items	New allocation		
	New allocator or line items	Difference	-	-
	Rationale for change			
7				
3			(\$000)	
7 7	Change in cost allocation 3			rrent Year (CY)
	Cost category	Original allocation		
	Original allocator or line items	New allocation		
3	New allocator or line items	Difference	-	-
1				
5	Rationale for change			
5				
7				
8 * 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.	

		Company Name	Waipa Networks Limited
		For Year Ended	31 March 2019
S	CHEDULE 5e: REPORT ON ASSET ALLOC	ATIONS	
		s. This information supports the calculation of the RAB value in Schedule 4. n Schedule 14 (Mandatory Explanatory Notes), including on the impact of any	changes in accept allocations. This information is part of audited
		nation), and so is subject to the assurance report required by section 2.8.	changes in asset anotations. This information is part of addited
	,		
:h rej	f		
7	5e(i): Regulated Service Asset Values		
			Value allocated
8			(\$000s) Electricity distribution
9			services
10	Subtransmission lines		
11 12	Directly attributable Not directly attributable		18,510
12	Total attributable to regulated service		18,510
14	Subtransmission cables		
15	Directly attributable		
16 17	Not directly attributable Total attributable to regulated service		
18	Zone substations		
19	Directly attributable		
20 21	Not directly attributable Total attributable to regulated service		
22 22	Distribution and LV lines		
23	Directly attributable		28,018
24	Not directly attributable		
25 26	Total attributable to regulated service Distribution and LV cables		28,018
26 27	Directly attributable		19,834
28	Not directly attributable		
29	Total attributable to regulated service		19,834
80 81	Distribution substations and transformers Directly attributable		27,628
32	Not directly attributable		27,020
3	Total attributable to regulated service		27,628
34	Distribution switchgear		
15 16	Directly attributable Not directly attributable		14,159
37	Total attributable to regulated service		14,159
8	Other network assets		
39 10	Directly attributable		4,074
10 11	Not directly attributable Total attributable to regulated service		4,074
42	Non-network assets		
13	Directly attributable		800
44 45	Not directly attributable Total attributable to regulated service		1,151 1,951
46			
47	Regulated service asset value directly attributable		113,024
48 49	Regulated service asset value not directly attributa Total closing RAB value)ie	1,151 114,175
50			
1	5e(ii): Changes in Asset Allocations* †		
51 52	Setilly, changes in Asset Allocations. T		(\$000)
53	Change in asset value allocation 1		CY-1 Current Year (CY)
4	Asset category		Original allocation
5 6	Original allocator or line items New allocator or line items		New allocation Difference – –
57			
8	Rationale for change		
59 50			
51			(\$000)
2	Change in asset value allocation 2		CY-1 Current Year (CY)
3	Asset category Original allocator or line items		Original allocation New allocation
55	New allocator or line items		Difference – –
6 7	Rationale for change	[1
8	Rationale for thange		
9			
70	Change is send when all with a 2		(\$000) CV-1 Current Year (CY)
71 72	Change in asset value allocation 3 Asset category		CY-1 Current Year (CY) Original allocation
3	Original allocator or line items		New allocation
4	New allocator or line items		Difference – –
75 76	Rationale for change		
77			
78	* a change in accet allocation much be seen lated for a late	llocator or component change that her any start is the disclosure	nument in an ellocator matrix is nott is ellt
79 80	 * a change in asset allocation must be completed for each a † include additional rows if needed 	llocator or component change that has occurred in the disclosure year. A mo	overnent in an allocator metric is not a change in allocator or compone.

		Maine Nation	1 instand
		Waipa Networks	
		31 March 20	113
This exc EDE	CHEDULE 6a: REPORT ON CAPITAL EXPENDITURE FOR THE DISCLOSURE YEAR is schedule requires a breakdown of capital expenditure on assets incurred in the disclosure year, including any assets in respect of which cluding assets that are vested assets. Information on expenditure on assets must be provided on an accounting accruals basis and must e Bs must provide explanatory comment on their expenditure on assets in Schedule 14 (Explanatory Notes to Templates). is information is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurar	exclude finance costs.	
sch rej	ſ		
Ĩ			
7	6a(i): Expenditure on Assets	(\$000)	(\$000)
8	Consumer connection		3,317
9 10	System growth Asset replacement and renewal		222 1,239
11	Asset relocations		1,235
12	Reliability, safety and environment:		
13	Quality of supply	857	
14	Legislative and regulatory	-	
15	Other reliability, safety and environment	227	4 004
16	Total reliability, safety and environment		1,084
17 18	Expenditure on notwork assets Expenditure on non-network assets		6,052 313
19	Expenditure on non-network assets		515
20	Expenditure on assets		6,365
21	plus Cost of financing		-
22	less Value of capital contributions		2,485
23	plus Value of vested assets		-
24	Canital averagilitura		3,880
25	Capital expenditure		3,880
26	6a(ii): Subcomponents of Expenditure on Assets (where known)		(\$000)
27	Energy efficiency and demand side management, reduction of energy losses		_
28	Overhead to underground conversion		338
29	Research and development		-
30	6a(iii): Consumer Connection		
31	Consumer types defined by EDB*	(\$000)	(\$000)
32	Residential	2,710	
33	General	432	
34	11kV	175	
35	-		
36 37	* include additional rows if needed	-	I
38	Consumer connection expenditure		3,317
39			r
40	less Capital contributions funding consumer connection expenditure	1,936	
41	Consumer connection less capital contributions		1,381
42	6a(iv): System Growth and Asset Replacement and Renewal		Asset Replacement and
43		System Growth	Renewal
44		(\$000)	(\$000)
45 46	Subtransmission		-
46 47	Zone substations Distribution and LV lines	48	- 33
48	Distribution and LV cables	3	147
49	Distribution substations and transformers	73	727
50	Distribution switchgear	68	332
51	Other network assets	29	-
52	System growth and asset replacement and renewal expenditure	222	1,239
53 54	less Capital contributions funding system growth and asset replacement and renewal System growth and asset replacement and renewal less capital contributions	205 17	176 1,063
55	· / ····· 0······		1,003
56	6a(v): Asset Relocations		
57	Project or programme*	(\$000)	(\$000)
58 50	-	-	
59 60			1
61			
62		_	
63	* include additional rows if needed		
64	All other projects or programmes - asset relocations	190	
65 65	Asset relocations expenditure	410	190
66 67	less Capital contributions funding asset relocations Asset relocations less capital contributions	148	42
0/	Asset relocations less capital contributions		42

		Company Name	Waipa Networks Limited	
		For Year Ended	31 March 2019	
S	CHEDULE 6a: REPORT ON CAPITAL EXPENDITURE FOR THE DI	L.		
	is schedule requires a breakdown of capital expenditure on assets incurred in the disclosure year, in			but
	cluding assets that are vested assets. Information on expenditure on assets must be provided on ar Bs must provide explanatory comment on their expenditure on assets in Schedule 14 (Explanatory		nd must exclude finance costs.	
	is information is part of audited disclosure information (as defined in section 1.4 of the ID determin		ne assurance report required by section 2.8.	
sch re	f			
68				
69	6a(vi): Quality of Supply			
70	Project or programme*		(\$000) (\$000)	
70	Install 11kV Dropout fuses spurs & services		13	
72	Disconnectors		-	
73	Install remote control switches		49	
74 75	Install TMU-HTI 110kV line St Kilda Feeder reconfiguration		<u>121</u> 641	
76	* include additional rows if needed			
77	All other projects programmes - quality of supply		33	
78 79	Quality of supply expenditure less Capital contributions funding quality of supply		_	857
80	Quality of supply less capital contributions			857
81 82	6a(vii): Legislative and Regulatory Project or programme*		(\$000) (\$000)	
83	-		- (\$555)	
84			-	
85 86				
86 87				
88	* include additional rows if needed			
<i>89</i>	All other projects or programmes - legislative and regulatory		-	
90 91	Legislative and regulatory expenditure less Capital contributions funding legislative and regulatory			-
92	Legislative and regulatory less capital contributions			-
93	6a(viii): Other Reliability, Safety and Environment			
94	Project or programme*		(\$000) (\$000)	
95	Replace two pole sub structures		39	
96 97				
98				
99			_	
100 101	 include additional rows if needed All other projects or programmes - other reliability, safety and environment 		188	
101	Other reliability, safety and environment expenditure		100	227
103	less Capital contributions funding other reliability, safety and environment		20	
104	Other reliability, safety and environment less capital contributions			208
105				
106	6a(ix): Non-Network Assets			
107 108	Routine expenditure Project or programme*		(\$000) (\$000)	
109				
110	-			
111 112				
112			-	
114	* include additional rows if needed			
115 116	All other projects or programmes - routine expenditure Routine expenditure		313	313
117 118	Atypical expenditure Project or programme*		(\$000) (\$000)	
119	-		-	
120			-	
121 122			-	
123	-		_	
124	* include additional rows if needed			
125 126	All other projects or programmes - atypical expenditure Atypical expenditure		-	_
127				
128	Expenditure on non-network assets			313

This s	Company Name For Year Ended HEDULE 6b: REPORT ON OPERATIONAL EXPENDITURE FOR THE DISCLOSURE YEAR	Waipa Netwo 31 Marc	
This s	HEDULE 6b: REPORT ON OPERATIONAL EXPENDITURE FOR THE DISCLOSURE YEAR	31 Marc	ch 2019
This s			
This s			
	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 explanator	y comment on any a	typical operational
	nditure and assets replaced or renewed as part of asset replacement and renewal operational expenditure, and additional information on insura		
This i	nformation is part of audited disclosure information (as defined in section 1.4 of the ID determination), and so is subject to the assurance repor	t required by section	2.8.
sch ref			
7	6b(i): Operational Expenditure	(\$000)	(\$000)
8	Service interruptions and emergencies	1,043	
9	Vegetation management	941	
10	Routine and corrective maintenance and inspection	1,097	
11	Asset replacement and renewal	680	
12	Network opex		3,761
13	System operations and network support	1,891	
14	Business support	2,355	
15	Non-network opex		4,246
16		_	
17	Operational expenditure	L	8,007
10	Ch/ii), Subcomponents of Operational Expanditure (where known)		
18	6b(ii): Subcomponents of Operational Expenditure (where known)	г	
19	Energy efficiency and demand side management, reduction of energy losses	-	-
20	Direct billing*	-	N/A
21	Research and development	-	N/A
22	Insurance		
23	* Direct billing expenditure by suppliers that directly bill the majority of their consumers		

Company	Name
F	-

Waipa Networks Limited

For Year Ended

31 March 2019

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) ¹	Actual (\$000)	% variance
	8 Line charge revenue	29,609	26,744	(10%)
	9 7(ii): Expenditure on Assets	Forecast (\$000) ²	Actual (\$000)	% variance
1	10 Consumer connection	3,866	3,317	(14%)
1	11 System growth	1,642	222	(86%)
1	12 Asset replacement and renewal	597	1,239	108%
1	13 Asset relocations	97	190	96%
	14 Reliability, safety and environment:			
	15 Quality of supply	1,506	857	(43%)
	16 Legislative and regulatory	-	-	-
	17 Other reliability, safety and environment	519	227	(56%)
	18 Total reliability, safety and environment	2,025	1,084	(46%)
	19 Expenditure on network assets	8,227	6,052	(26%)
	20 Expenditure on non-network assets	105	313	198%
2	21 Expenditure on assets	8,332	6,365	(24%)
2	22 7(iii): Operational Expenditure			
2	23 Service interruptions and emergencies	690	1,043	51%
2	24 Vegetation management	1,003	941	(6%)
2	25 Routine and corrective maintenance and inspection	1,082	1,097	1%
2	26 Asset replacement and renewal	534	680	27%
2	27 Network opex	3,309	3,761	14%
2	28 System operations and network support	1,367	1,891	38%
	29 Business support	2,624	2,355	(10%)
	30 Non-network opex	3,991	4,246	6%
3	31 Operational expenditure	7,300	8,007	10%
3	32 7(iv): Subcomponents of Expenditure on Assets (w	/here known)		
З	33 Energy efficiency and demand side management, reduction of e	nergy losses	-	-
-	34 Overhead to underground conversion		338	-
	35 Research and development		-	-
3	36			
3	7(v): Subcomponents of Operational Expenditure	(where known)		
3	38 Energy efficiency and demand side management, reduction of e	nergy losses	-	-
З	39 Direct billing		N/A	-
4	40 Research and development		N/A	-
4	41 Insurance		-	-
4	42			
4	43 1 From the nominal dollar target revenue for the disclosure year disclos	ed under clause 2.4.3(3) of this determine	ation	
4	2 From the CY+1 nominal dollar expenditure forecasts disclosed in accouding disclosure year (the second to last disclosure of Schedules 11a and 11b)	rdance with clause 2.6.6 for the forecast (period starting at the	beginning of the

	LED QUANTITIES AND LI associated line charge revenues for e		e EDB in its pricing schedules																	
Billed Quantities by Price	e Component																			
						Billed quant	ties by price component		1 1											
						Price component Combine	d Uncontrolled	Controlled	Controlled 8	Day	Night	Peak Of	ff Peak Shou	ulder St		ilders Inporary Fix	ed Daily Charge	Capacity charges	Monthly Charge	Transformer
Consumer group name or pr category code	rice Consumer type or types (eg, residential, commercial etc.)		Average no. of ICPs in disclosure year	Energy delivered to ICPs in disclosure year (MWh)	Unit charging basis (eg, days kVA of capacity,	s, kW of demand, , etc.) kWh	kWh	kWh	kWh	kWh	kWh	kWh b	kWh kW	Wh	kWh k	cWh	Days	kVA of capacity		
Domestic	Residential	Standard	21,297	162,433		39,85	,535 95,262,198	23,516,460	616,950	11,733	1,589	1,665,538	610,149	890,126						[
Non Domestic	General	Standard	5,215	112,653			90,719,704	12,766,212	737,112		558,129	1,747,585		1,521,736	1,415,510	752,654				
400V Capacity Contract	General	Standard Standard	129 25	33,464										2,974,417						
11KV 11KV	General General	Standard Non-standard	4	14,435			67 705 631					5,347,912	3,556,557 5,	5,530,678						
-		CONTRACTOR -	2	07,700			07,703,031													
		-																		
Add extra rows for additional	l consumer groups or price category co	les as necessary Standard consumer totals	26,670	322,985		39,85	,535 185,981,902	36,282,672	1,354,062	1,229,859	559,718	21,082,615 1	13,550,496 20,	0,916,957	1,415,510	752,654	-	-	-	-
Add extra rows for additional	consumer groups or price category co		26,670 2 26,672	322,985 67,706 390,691		39,850 39,850	- 67,705,631	36,282,672 - 36,282,672	1,354,062 - 1,354,062	1,229,859 - 1,229,859	-	-	-	0,916,957 - 0,916,957	1,415,510 - 1,415,510	752,654 - 752,654		- - -		
	i consumer groups or price category co	Standard consumer totals Non-standard consumer totals	2	67,706		39,85	- 67,705,631	- 36,282,672	-	-	-	-	-	-	-	-	- - -			
		Standard consumer totals Non-standard consumer totals	2	67,706		39,85	- 67,705,631 (535 253,687,533 evenues (\$000) by price of	- 36,282,672	-	-	-	- 21,082,615 1	- 13,550,496 20,	- 0,916,957	- 1,415,510	- 752,654	- I		- - - Monthly Charge	- - - Transformer
Line Charge Revenues (;		Standard consumer total total for all consumers Total for all consumers	2 26,672 Total line charge revenue	67,706	Total transmission	39,85 Line charge	- 67,705,631 (535 253,687,533 evenues (\$000) by price of	- 36,282,672 omponent	- 1,354,062	- 1,229,859	- 559,718	- 21,082,615 1	- 20, 13,550,496 20, ff Peak Shou		 1,415,510 . streetLights Bu	- 752,654			- - - Monthly Charge	
Line Charge Revenues (Consumer group name or pr category code	\$000) by Price Component rice Consumer type or types (eg. residential, commercial etc.) Incidential	Standard consumer totals Non-standard consumer totals Total for all consumers Standard or non-standard consumer group (specify) Standard	2 26,672 Total line charge revenue in disclosure year \$12,932	67,706 390,691 Notional revenue foregone from posted	Total distribution line charge Rate (eg line charge revenue (if revenue available)	Une charge Price component Combine g, S per day, S per kWh, et.3	- 67705.631 (535 253.687,533 evenues (\$000) by price of d Uncontrolled kwh .025 \$8,040		- 1,354,062 Controlled 8 kwh		- 559,718	- 21,082,615 2 Peak Of kwh 1 \$206	- 20, 13,550,496 20, ff Peak Shou kwh kw 57	- 0,916,957	- 1,415,510 treetLights European kwh i	- 752,654	\$ per day 1			- - - Transformer
Line Charge Revenues (Consumer group name or pr category code	\$000) by Price Component free Consumer type or types (eg. residential, commercial etc.)	Standard consumer total non-standard consumer total Total for all consumers Standard or non-standard consumer group (specify)	2 26,672 Total line charge revenue in disclosure year	67,706 390,691 Notional revenue foregone from posted	Total distribution Ine charge Rate (eg line charge revenue (if revenue available)	Une charge Price component Combine g, S per day, S per kWh, et.3	- 67705.631 (5335 253.687,533 evenues (5000) by price of d Uncontrolled kwh	- 36,282,672 omponent Controlled	- 1,354,062 Controlled 8 kwh		- 559,718	- 21,082,615 1 Peak Of kwh I	- 20, 13,550,496 20, ff Peak Shou	- 0,916,957	 1,415,510 . streetLights Bu	- 752,654 iilders sporary	S per day			- - - Transformer
Line Charge Revenues (Consumer group name or pr category code Domestic Nan Domestic	\$000) by Price Component	Standard consumer totals Total for all consumers Total for all consumers Standard or non-standard consumer group (specify) Standard Standard Standard	2 2 26.672 Total line charge revenue in disclosure year \$12,932 \$3,177 \$477 \$3,23,14	67,706 390,691 Notional revenue foregone from posted	Total transmission Total distribution line charge revenue (If 512,932 5477 547 547 547	Une charge Price component Combine g, S per day, S per kWh, et.3	- 67705.631 (535 253.687,533 evenues (\$000) by price of d Uncontrolled kwh .025 \$8,040		- 1,354,062 Controlled 8 kwh		- 559,718	- 21,082,615 3 21,082,615 3 Peak Of kwh 1 \$206 \$216 \$718	- 20, 13,550,496 20, ff Peak Shou kwh kw 57 515 5100		- 1,415,510 treetLights European kwh i	- 752,654	\$ per day	kVA of capacity \$985	\$ per Month	
Line Charge Revenues (\$ Consumer group name or pr category code	\$000) by Price Component frice Consumer type or types (eg. residential, commercial etc.) Assidential Commercial	Standard consumer totals Non-standard consumer totals Total for all consumers Standard or non-standard consumer group (specify) Standard Standard	2 26,672 Total line charge revenue in disdozure year 512,932 59,177 547	67,706 390,691 Notional revenue foregone from posted	Total faramision Rate (g) Total distribution line charge Rate (g) ine charge evenue (if suilable) 512.032	Une charge Price component Combine g, S per day, S per kWh, et.3	- 67705.631 (535 253.687,533 evenues (\$000) by price of d Uncontrolled kwh .025 \$8,040		- 1,354,062 Controlled 8 kwh		- 559,718	- 21,082,615 1 Peak Of kwh I S206 S216	- 20, 13,550,496 20, If Peak Shou kwh ku 57 515	- 0,916,957	- 1,415,510 treetLights European kwh i	- 752,654	\$ per day	kVA of capacity		
Line Charge Revenues (Consumer group name or pr category code	\$000) by Price Component	Standard consumer totals Non-standard consumer totals Total for all consumers Standard or non-standard consumer group (specify) Standard Standard Standard Standard Standard Standard Standard	2 26,672 Total line charge revenue in disdoaure year 512,932 93,177 52,114 537	67,706 390,691 Notional revenue foregone from posted	Total faramission Rate (g) Total distribution line charge revenue (if Str. 2032 available 512,033	Une charge Price component Combine g, S per day, S per kWh, et.3	- 67705.631 (535 253.687,533 evenues (\$000) by price of d Uncontrolled kwh .025 \$8,040		- 1,354,062 Controlled 8 kwh		- 559,718	- 21,082,615 3 21,082,615 3 Peak Of kwh 1 \$206 \$216 \$718	- 20, 13,550,496 20, ff Peak Shou kwh kw 57 515 5100		- 1,415,510 treetLights European kwh i	- 752,654	\$ per day	kVA of capacity \$985	\$ per Month	
Line Charge Revenues (Consumer group name or pr category code	\$000) by Price Component	Standard consumer totals Non-standard consumer totals Total for all consumers Standard or non-standard consumer group (specify) Standard Standard Standard Standard Standard Standard Standard	2 26,672 Total line charge revenue in disdoaure year 512,932 93,177 52,114 537	67,706 390,691 Notional revenue foregone from posted	Total faramission Rate (g) Total distribution line charge revenue (if Str. 2032 available 512,033	Une charge Price component Combine g, S per day, S per kWh, et.3	- 67705.631 (535 253.687,533 evenues (\$000) by price of d Uncontrolled kwh .025 \$8,040		- 1,354,062 Controlled 8 kwh		- 559,718	- 21,082,615 3 21,082,615 3 Peak Of kwh 1 \$206 \$216 \$718	- 20, 13,550,496 20, ff Peak Shou kwh kw 57 515 5100		- 1,415,510 treetLights European kwh i	- 752,654	\$ per day	kVA of capacity \$985	\$ per Month	
Line Charge Revenues (Consumer group name or pr category code Domestic Unmetted 400V Capacity Contract 11KV	S000) by Price Component S000) by Price Component Consumer type or types (eg. residential Commercial Commercial Commercial Commercial Commercial Commercial Commercial	Standard consumer totals Total for all consumers Total for all consumers Standard or non-standard consumer group (specify) Standard Standard Standard Standard Standard Non-standard	2 26,672 Total line charge revenue in disdoaure year 512,932 93,177 52,114 537	67,706 390,691 Notional revenue foregone from posted	Total faramission Rate (g) Total distribution line charge revenue (if Str. 2032 available 512,033	Une charge Price component Combine g, S per day, S per kWh, et.3	- 67705.631 (535 253.687,533 evenues (\$000) by price of d Uncontrolled kwh .025 \$8,040		- 1,354,062 Controlled 8 kwh		- 559,718	- 21,082,615 3 21,082,615 3 Peak Of kwh 1 \$206 \$216 \$718	- 20, 13,550,496 20, ff Peak Shou kwh kw 57 515 5100		- 1,415,510 treetLights European kwh i	- 752,654	\$ per day	kVA of capacity \$985	\$ per Month	
Line Charge Revenues (Consumer group name or pr category code Domestic Unmetted 400V Capacity Contract 11KV	\$000) by Price Component	Standard consumer totals Total for all consumers Total for all consumers Standard or non-standard consumer group (specify) Standard Standard Standard Standard Standard Non-standard	2 26,672 Total line charge revenue in disdoaure year 512,932 93,177 52,114 537	67,706 390,691 Notional revenue foregone from posted	Total faramission Rate (g) Total distribution line charge revenue (if Str. 2032 available 512,033	Price component Combine g, S per day, S per KWh, etc.] S	- 67705.631 (535 253.687,533 evenues (\$000) by price of d Uncontrolled kwh .025 \$8,040		- 1,354,062 Controlled 8 kwh	- 1,229,859 Day Day kwh \$1 \$150	- 559,718	- 21,082,615 3 21,082,615 3 Peak Of kwh 1 \$206 \$216 \$718	- 20, 13,550,496 20, ff Peak Shou kwh kw 57 515 5100		- 1,415,510 treetLights European kwh i	- 752,654	\$ per day	kVA of capacity \$985	\$ per Month	\$39

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Company Name	Waipa Networks Limited
For Year Ended	31 March 2019
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.

8	Voltage	Asset category	Asset class	Units	Items at start of year (quantity)	Items at end of year (quantity)	Net change	Data accuracy (1–4)
9	All	Overhead Line	Concrete poles / steel structure	No.	20,608	20,658	50	4
10	All	Overhead Line	Wood poles	No.	1,606	1,579	(27)	4
11	All	Overhead Line	Other pole types	No.	2	3	1	4
12	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	-	-	-	N/A
13	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	36	36	-	4
14	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	-	-	-	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	-	-	-	N/A
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	-	-	-	N/A
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	-	-	-	N/A
18	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	-	-	-	N/A
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	-	-	-	N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	-	-	-	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	-	-	-	N/A
22	HV	Subtransmission Cable	Subtransmission submarine cable	km	-	-	-	N/A
23	HV	Zone substation Buildings	Zone substations up to 66kV	No.	-	-	-	N/A
24	HV	Zone substation Buildings	Zone substations 110kV+	No.	-	-	-	N/A
25	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	-	-	-	N/A
26	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	-	-	-	N/A
27	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	-	-	-	N/A
28	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	-	-	-	N/A
29	HV	Zone substation switchgear	33kV RMU	No.	-	-	-	N/A
30	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	-	-	-	N/A
31	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	-	-	-	N/A
32	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	-	-	-	N/A
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	-	-	-	N/A
34	HV	Zone Substation Transformer	Zone Substation Transformers	No.	-	-	-	N/A
35	HV	Distribution Line	Distribution OH Open Wire Conductor	km	1,227	1,229	1	4
36	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	-	-	-	N/A
37	HV	Distribution Line	SWER conductor	km	-	-	-	N/A
38	HV	Distribution Cable	Distribution UG XLPE or PVC	km	137	141	4	4
39	HV	Distribution Cable	Distribution UG PILC	km	1	1	-	4
40	HV	Distribution Cable	Distribution Submarine Cable	km	-	-	-	N/A
41	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	115	115	-	4
42	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	-	-	-	N/A
43	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	5,086	5,152	66	4
44	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	-	-	-	N/A
45	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	99	110	11	4
46	HV	Distribution Transformer	Pole Mounted Transformer	No.	2,724	2,727	3	4
47	HV	Distribution Transformer	Ground Mounted Transformer	No.	764	800	36	4
48	HV	Distribution Transformer	Voltage regulators	No.	50	54	4	4
49	HV	Distribution Substations	Ground Mounted Substation Housing	No.	-	-	-	N/A
50	LV	LV Line	LV OH Conductor	km	507	507	1	4
51	LV	LV Cable	LV UG Cable	km	304	316	13	4
52	LV	LV Street lighting	LV OH/UG Streetlight circuit	km	146	149	3	4
53	LV	Connections	OH/UG consumer service connections	No.	26,372	26,441	69	4
54	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	-	-	-	N/A
55	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	1	1	-	4
56	All	Capacitor Banks	Capacitors including controls	No	-	-	-	N/A
57	All	Load Control	Centralised plant	Lot	3	3	-	4
58	All	Load Control	Relays	No	18,577	18,728	151	3
59	All	Civils	Cable Tunnels	km	-	-	-	N/A

sch ref

	.E 9b: ASSET AGE PROFI																					Network /	Company N For Year Ei Sub-network N	nded						pa Netwo 31 Marci	rks Limited 2019				
		LE based on year of installation) of the assets that make up the network, by 31 March 2019	iy asset c	category and a	sset class. All u	inits relatii	ig to cable and	line assets,	that are exp					rinstallation da	**																				
	Disclosure rear (year chieco)				1940 195	0 19	60 1970	1980	1990		01 0336 03 0	e unicionane	year end by	instantion of																		No. v	ith Items at end of	No. with default	
oltage	Asset category		Units _	pre-1940 -	1949 -19	59 -19	69 -1979	-1989	-1999	2000	2001	2002		2004 20			2008		2010			013 2014			017 2018		2020	2021	2022	2023	2024 20	25 unkno	wn year	dates	
	Overhead Line	Concrete poles / steel structure	No.	-	-		675 3,429	0,001	2,543	194	204	203	289	212	266 20	204	252	249	312	258	221	239 248	161	341	145 20	1 3	0						20,658		
	Overhead Line	Wood poles	No.	-	-	17	244 226	6 462	519	3	6	1	3	2	1	5 6	1	1	44	-	28	1 -	-	-	-	6	3						1,579		
1 - E	Overhead Line	Other pole types	No.	-		-		1	-	-	-	-	-	-	1 -	-	-	-	-	-	-		-	1		-							3		
	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	_		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							_		[5
/	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	-		-		-	1	-	-	-	-	-		-	-	-	-	-	-		-	35		-							36		[9
	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		15
/	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		15
,	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		[5
,	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	- 1		- 1		- 1	-	- 1	-	-	-	-		-	- 1	-	-	-	-		-	-		-			1				-		[5
,	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km			1																			1			1	1						10
			km	-				-	-	-		-	-	-		-		-	-	-	-		-	-		-			1				_		13
, ,	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)		-		-		-	-	-	-	-		-		-			-	-	-		-	-			-	1	-	1		-	-		15
	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	-		-		-	-	-		-	-	-		-	-	-	-	-	-		-	-			-	+	-	-		_	-		
	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	-		-			+ -		-	-	-	-		-	-	-	-	-	-		-	-				-	-				-		1
	Subtransmission Cable	Subtransmission submarine cable	km	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-	-	1	-	-			-		B
	Zone substation Buildings	Zone substations up to 66kV	No.	-		-		-	-		-	-	-	-		-	-	-	-	-	-		-	-		-				1			-		E
	Zone substation Buildings	Zone substations 110kV+	No.	-		-		-	-	- 1	-	-	-	-		-	-	0	-	-	-		-	-		-							-		B
	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	-		- [-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		B
	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	-		- 1		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		B
	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		E
	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		E
	Zone substation switchgear	33kV RMU	No	_		-		-	-	-	-	_	-	-		-	_	-	-	-	-		-	-		-		1		1			-		1
,	Zone substation switchgear	22/33kV CB (Indoor)	No	_		-		-	-	-	-	_	-	-		-	_	-	-	-	-		-	-		-		1		1			-		1
,	Zone substation switchgear	22/33kV CB (Nutdoor) 22/33kV CB (Outdoor)	No			_		1	-		-	_	_	-		-		_	_	-	-	-	-	-		-	1	1	1	1					B
,	Zone substation switchgear		No.	-		-	-	-	1 -			-	-			-	-	-	-			-	1 -	- 1-			1	1	1	1		-	-		15
		3.3/6.6/11/22kV CB (ground mounted)	110.	-		-		-	-	-		-		-		-			-	-	-		-	-			-	1	-	1		-	-		
	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-		-	-	-			-		ß
	Zone Substation Transformer	Zone Substation Transformers	No.	-		-		-	-	-		-	-	-		-	-	-	-	-	-		-	-		-							-		ß
/	Distribution Line	Distribution OH Open Wire Conductor	km	0		-	0 31	874	302	4	5	0	7	0	0	3 0	2	0	1	-	0	0 -	0	-		-		_	-				1,229		[5
	Distribution Line	Distribution OH Aerial Cable Conductor	km	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		- 1							-		E
/	Distribution Line	SWER conductor	km	-		-		-	-	-	-	-	-	-			-	-	-	-	-		-	-		-			1				-		B
	Distribution Cable	Distribution UG XLPE or PVC	km	0		- L	3 1	18	21	2	3	3	3	6	8	13 7	6	4	2	1	2	6 4	2	5	6	5	2						141		B
/	Distribution Cable	Distribution UG PILC	km	-		- 1	1 (0 0	0	-	-	-	-	-		-	0	-	-	-	-		-	-		-							1		B
	Distribution Cable	Distribution Submarine Cable	km	-		-		-	-	-	-	-	-	-		-	-	-	-	-	-		-	-		-							-		l
	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	-		-	- 1	1	-	-	-	-	-	8	4	5 7	8	5	13	12	15	13 12	11	-		-							115		E
	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No	-		.		-	- 1	-	-	_	-	-		-	_	-	-	-	-		-	-		_	1	1	1	1			-		1
	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No	1	9 1	106	302 973	540	394	49	109	90	154	126	161 1	54 155	150	142	131	175	169	193 199	164	162	155 19	8 2	2		1				5,152		P
	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.				- 3/1		324	42	105				-	- 155	130			-	-	- 199		-	-			1		1			3,132		B
	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU 3.3/6.6/11/22kV RMU	No.	-		-			1 -			-					- 12	-	-	-	-	-	-			-		1	1	1		-	110		B
			NO.			20	- 1	429	- 297	- 42	- 61	- 91	65	5	8	9 5	13	8	4	4	7	9 Z	62	4	56 3		-	+	+	1		_			13
	Distribution Transformer	Pole Mounted Transformer	No.	1	-	39	64/ AJ	763	321			V.	00	68			114	61	30	44	79	13 440	40	34	39	•	-	1	+				2,727		1.
	Distribution Transformer	Ground Mounted Transformer	No.	-		-	6 44	64	52	20	19	10	19	21	45	28 43	41	44	29	49	42	46 40	32	45	30 3	- 1		-	-				800	<u> </u>	ß
	Distribution Transformer	Voltage regulators	No.	-		-	- (5 2	5	1	6	-	5	4	3	9 -	-	-	3	-	-	- 2	5	-	-	3 -	-	1	-	-			54		ß
	Distribution Substations	Ground Mounted Substation Housing	No.	-		-			- 1	-	-	-	-	-		-	-	-	-	-	-		-	-		- 1	1	1	-	1			-		B
	LV Line	LV OH Conductor	km	0		-	- 10	380	113	3	1	0	1	0	0 -	0	0	-	-	-	-	0 -	-	-	0	0 -							507		B
	LV Cable	LV UG Cable	km				4 32	49	45	6	4	3	7	11	15	12 15	16	8	5	5	6	13 10	9	11	15 1	1	4						316		B
	LV Street lighting	LV OH/UG Streetlight circuit	km	0		- 1	1 13	66	21	3	0	0	0	1	5	3 4	4	2	2	0	1	3 3	3	3	7	4	1						149		E
	Connections	OH/UG consumer service connections	No.	5	76 9	342 3.	977 4.919	4,982	3,193	307	283	326	434	439	534 5	53 616	443	372	366	348	370	468 518	549	598	583 13	0 10	4	1	1	1			26.441		E
	Protection	Protection relays (electromechanical, solid state and numeric)	No			- 1 - 1		-	-	-	-	-	-	-		-	_	-	-	-	-		-	-		-		1		1			-		P
	SCADA and communications	SCADA and communications equipment operating as a single syst	Lot		-	_		1	-		-	_	_	-	1 -	-		_	_	-	-	-	-	-		-	1	1	1	1			1		P
			LOT	-		-		-	-	-		-		-		-			-	-	-		-	-			-	1	-	1		-	1		E D
	Capacitor Banks	Capacitors including controls	No	-		-		-	-	-		-	-	-		-	-	-	-	-	-			-			+	+	+	1		_	-		
	Load Control	Centralised plant	Lot			-	- 1			1	1	-	-	-		-	-	-	-	-	-			-			-	1	+				3		ß
	Load Control	Relays	No	-	2	29	134 81	88	352	100	1,302	6,828	87	84	30 2	345	1,353	1,939	1,100	771	1,318	952 886	23	259	268 10	iS	1						18,728		[\$
	Civils	Cable Tunnels	km	- 1		- 1	- 1 -	1 -	1 -	1 - 1	-	-	-	-	- -	-	-	-	-	- 1	- 1		1 - 1	-		- 1	1	1	1	1		1	-		[Se

	Company Name	Waipa Networks Limited							
	For Year Ended	31 March 2019							
	Network / Sub-network Name								
ссн	EDULE 9c: REPORT ON OVERHEAD LINES AND UNDERGROUND CABLES								
	thedule requires a summary of the key characteristics of the overhead line and underground cable network. All units rel	lating to cable and li	no accets that are ex	proceed in km. ro					
	uit lengths.	lating to cable and i	ne assets, that are ex	presseu in kin, re					
ch ref									
9									
10	Cincuits Investion to Manager (as to an an all	Oursels and (loss)	(In demonstrated (Inv.)	Total circuit					
1	Circuit length by operating voltage (at year end) > 66kV	Overhead (km) 36	Underground (km)	length (km) 3					
2	50kV & 66kV								
13	33kV	_	_	_					
4	SWER (all SWER voltages)	_	_	_					
15	22kV (other than SWER)	-	_	_					
6	6.6kV to 11kV (inclusive—other than SWER)	1,229	142	1,37					
7	Low voltage (< 1kV)	507	316	82					
8	Total circuit length (for supply)	1,772	459	2,23					
.9			A						
20	Dedicated street lighting circuit length (km)	67	81	14					
1	Circuit in sensitive areas (conservation areas, iwi territory etc) (km)								
2									
	Our deside the state by the second of the se	Circuit length	(% of total						
3	Overhead circuit length by terrain (at year end)	(km)	overhead length)						
4 5	Urban	215 1,478	12%						
6	Rural Remote only	1,478	83%						
27	Rugged only	80	- 5%						
28	Remote and rugged	80	-						
29	Unallocated overhead lines								
30	Total overhead length	1,772	100%						
81		_,,,_							
		Circuit length	(% of total circuit						
32		(km)	length)						
33	Length of circuit within 10km of coastline or geothermal areas (where known)	161	7%						
		Circuit length	(% of total						
34		(km)	overhead length)						
35	Overhead circuit requiring vegetation management	1,265	71%						

	Company	/ Name	Waipa Netv	vorks Limited
	For Year	Ended		rch 2019
	ILE 9d: REPORT ON EMBEDDED NETWORKS e requires information concerning embedded networks owned by an EDB that are embedded in another EDB's network or in	another em	nbedded network.	
ref				
8	Location *		Number of ICPs served	Line charge revenue (\$000)
9		Г		(+)
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3				
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i				
7				
3				
2				
)		-		
		<u> </u>		
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		-		
-		-		
	xtend embedded distribution networks table as necessary to disclose each embedded network owned by the EDB which is en	<u>_</u>		I

	Company Name	Waipa Networks Limited
	For Year Ended	31 March 2019
	Network / Sub-network Name	
S	CHEDULE 9e: REPORT ON NETWORK DEMAND	
	is schedule requires a summary of the key measures of network utilisation for the disclosure year (number of r	new connections including
dis	tributed generation, peak demand and electricity volumes conveyed).	
sch re	ef	
0	9e(i): Consumer Connections	
8 9	Number of ICPs connected in year by consumer type	
		Number of
10	Consumer types defined by EDB*	connections (ICPs)
11	Residential	500
12	General	79
13	Unmetered	-
14 15		1
15 16	* include additional rows if needed	
17	Connections total	580
18		
19	Distributed generation	
20	Number of connections made in year	103 connections
21	Capacity of distributed generation installed in year	0.48 MVA
22	9e(ii): System Demand	
22		
24		
		Demand at time
		Demand at time of maximum
		of maximum coincident
25	Maximum coincident system demand	of maximum
25 26	Maximum coincident system demand GXP demand	of maximum coincident
	GXP demand plus Distributed generation output at HV and above	of maximum coincident demand (MW)
26 27 28	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand	of maximum coincident demand (MW) 74 74
26 27 28 29	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above	of maximum coincident demand (MW) 74 - 74 0
26 27 28	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand	of maximum coincident demand (MW) 74 74
26 27 28 29	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points	of maximum coincident demand (MW) 74 - 74 0
26 27 28 29 30	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above	of maximum coincident demand (MW) 74 - 74 0 74
26 27 28 29 30 31	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried	of maximum coincident demand (MW) 74 - 74 0 74 Energy (GWh)
26 27 28 29 30 31 32	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs	of maximum coincident demand (MW) 74 - 74 0 74 Energy (GWh) 413
26 27 28 29 30 31 32 33	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs	of maximum coincident demand (MW) 74 74 0 74 0 74 Energy (GWh) 413 2 1
26 27 28 29 30 31 32 33 34 35 36	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points	of maximum coincident demand (MW) 74 74 0 74 0 74 Energy (GWh) 413 2 1 1
26 27 28 30 31 32 33 34 35 36 37	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs	of maximum coincident demand (MW) 74 74 0 74 0 74 0 74 0 74 2 1 1 413 2 1 1 413 391
26 27 28 29 30 31 32 33 34 35 36 37 38	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points	of maximum coincident demand (MW) 74 74 0 74 0 74 Energy (GWh) 413 2 1 1
26 27 28 29 30 31 32 33 34 35 36 37	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs	of maximum coincident demand (MW) 74 74 0 74 0 74 0 74 0 74 2 1 1 413 2 1 1 413 391
26 27 28 29 30 31 32 33 34 35 36 37 38 39	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs Electricity losses (loss ratio) Load factor	of maximum coincident demand (MW) 74 74 0 74 0 74 Chergy (GWh) 413 2 1 413 2 1 413 391 23 5.5%
26 27 28 29 30 31 32 33 34 35 36 37 38 39	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs Electricity losses (loss ratio)	of maximum coincident demand (MW) 74 74 0 74 0 74 Chergy (GWh) 413 2 1 413 2 1 413 391 23 5.5%
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs Electricity losses (loss ratio) Load factor	of maximum coincident demand (MW) 74 74 0 74 0 74 Chergy (GWh) 413 2 1 413 2 1 413 391 23 5.5%
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs Electricity losses (loss ratio) Load factor 9e(iii): Transformer Capacity Distribution transformer capacity (EDB owned)	of maximum coincident demand (MW) 74 74 0 74 Energy (GWh) 413 2 1 413 391 23 5.5% 0.64
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs Electricity losses (loss ratio) Load factor 9e(iii): Transformer Capacity Distribution transformer capacity (EDB owned) Distribution transformer capacity (Non-EDB owned, estimated)	of maximum coincident demand (MW) 74 74 0 74 0 74 0 74 2 1 413 2 1 413 391 23 5.5% 0.64 (MVA) 263 49
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs Electricity losses (loss ratio) Load factor 9e(iii): Transformer Capacity Distribution transformer capacity (EDB owned)	of maximum coincident demand (MW) 74 74 0 74 Energy (GWh) 413 2 1 413 391 23 5.5% 0.64
26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44	GXP demand plus Distributed generation output at HV and above Maximum coincident system demand less Net transfers to (from) other EDBs at HV and above Demand on system for supply to consumers' connection points Electricity volumes carried Electricity supplied from GXPs less Electricity exports to GXPs plus Electricity supplied from distributed generation less Net electricity supplied to (from) other EDBs Electricity entering system for supply to consumers' connection points less Total energy delivered to ICPs Electricity losses (loss ratio) Load factor 9e(iii): Transformer Capacity Distribution transformer capacity (EDB owned) Distribution transformer capacity (Non-EDB owned, estimated)	of maximum coincident demand (MW) 74 74 0 74 0 74 0 74 2 1 413 2 1 413 391 23 5.5% 0.64 (MVA) 263 49

		Company Name	Waipa Networks Limite	ed
		For Year Ended	31 March 2019	
			51 Warch 2015	
		vork / Sub-network Name		
SCH	EDULE 10: REPORT ON NETWORK RELIABILITY			
	chedule requires a summary of the key measures of network reliability (interruptions, SAIDI, SAIFI			
	eir network reliability for the disclosure year in Schedule 14 (Explanatory notes to templates). The		f audited disclosure information (as	s defined
in sec	tion 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.			
n ref				
8	10(i): Interruptions	N		
9	Interruptions by class	Number of interruptions		
		1		
10 11	Class A (planned interruptions by Transpower) Class B (planned interruptions on the network)	98		
12	Class C (unplanned interruptions on the network)	148		
13	Class D (unplanned interruptions by Transpower)	_		
14	Class E (unplanned interruptions of EDB owned generation)			
15	Class F (unplanned interruptions of generation owned by others)			
16	Class G (unplanned interruptions caused by another disclosing entity)	_		
17	Class H (planned interruptions caused by another disclosing entity)	_		
18	Class I (interruptions caused by parties not included above)	-		
19	Total	247		
20				
21	Interruption restoration	≤3Hrs	>3hrs	
22	Class C interruptions restored within	86	62	
23				
24	SAIFI and SAIDI by class	SAIFI	SAIDI	
25	Class A (planned interruptions by Transpower)	0.01	1.5	
26	Class B (planned interruptions on the network)	0.21	53.2	
?7	Class C (unplanned interruptions on the network)	1.17	115.0	
28	Class D (unplanned interruptions by Transpower)		-	
29	Class E (unplanned interruptions of EDB owned generation)	_	-	
30	Class F (unplanned interruptions of generation owned by others)	-	-	
31	Class G (unplanned interruptions caused by another disclosing entity)	-	-	
32	Class H (planned interruptions caused by another disclosing entity)	-	-	
33	Class I (interruptions caused by parties not included above)	-	-	
34	Total	1.38	169.7	
35				
36	Normalised SAIFI and SAIDI	Normalised SAIFI Nor	malised SAIDI	
37	Classes B & C (interruptions on the network)	1.37	168.19	
38				

	(Company Name	Waipa Ne	etworks Limited
		For Year Ended	31 N	Narch 2019
	Network / Sub	-network Name		
S	CHEDULE 10: REPORT ON NETWORK RELIABILITY	L		
Th on	is schedule requires a summary of the key measures of network reliability (interruptions, SAIDI, SAIFI and fault rat their network reliability for the disclosure year in Schedule 14 (Explanatory notes to templates). The SAIFI and SA section 1.4 of the ID determination), and so is subject to the assurance report required by section 2.8.			
39 40	10(ii): Class C Interruptions and Duration by Cause			
41	Cause	SAIFI	SAIDI	
42	Lightning	0.06	2.7	
43	Vegetation	0.15	14.7	
44	Adverse weather	0.12	20.9	
45	Adverse environment	0.01	0.4	
46	Third party interference	0.33	43.3	
47	Wildlife	0.00	0.2	
48	Human error	0.14	6.8	
49	Defective equipment	0.22	21.6	
50	Cause unknown	0.13	4.5	
51 52 53	10(iii): Class B Interruptions and Duration by Main Equipment Involved			
54	Main equipment involved	SAIFI	SAIDI	
55	Subtransmission lines	-	-	
56	Subtransmission cables	-	_	
57	Subtransmission other	-	-	
58	Distribution lines (excluding LV)	0.18	46.3	
69	Distribution cables (excluding LV)	0.00	0.7	
60	Distribution other (excluding LV)	0.02	6.2	
61 62	10(iv): Class C Interruptions and Duration by Main Equipment Involved			
63	Main equipment involved	SAIFI	SAIDI	
64	Subtransmission lines	-	-	
65	Subtransmission cables	-	-	
66	Subtransmission other	-	-	
67	Distribution lines (excluding LV)	1.16	113.6	
68 69	Distribution cables (excluding LV) Distribution other (excluding LV)	0.01	1.4	
70	10(v): Fault Rate			
74	Main equipment involved	Number of Faults	Circuit length	Fault rate (faults per 100km)
71	Main equipment involved		(km)	per tookinj
72	Subtransmission lines			
73 74	Subtransmission cables Subtransmission other	-		
		_ 146	1,229	11.00
75 76	Distribution lines (excluding LV) Distribution cables (excluding LV)	146	1,229	11.88
70	Distribution clables (excluding LV) Distribution other (excluding LV)	-	142	1.41
78	Total	148		