

Financial Information Disclosure 2018

25/05/2018

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Introduction

This disclosure of information is submitted by Powerco Limited (Powerco) pursuant to subpart 9 of Part 4 of the Commerce Act 1986 (Act) and in accordance with the Commerce Commission's Electricity Distribution Information Disclosure Determination 2012 (IDD) and subsequent amendments up to and including the 2015 information disclosure amendments.

Part 4 of the Act provides a regulatory regime for electricity lines services and sets out the requirements of information disclosure regulation. The purpose of the information disclosure regulation is to ensure that sufficient information is readily available to enable interested persons to assess whether the purpose of Part 4 of the Act is being met. The purpose of Part 4 is to promote the long-term benefit of consumers by promoting outcomes that are consistent with those produced in competitive markets. For the purpose of regulatory compliance, Powerco is a provider of *"electricity lines services"*, as defined by section 52C of the Act, and is required to comply with the requirements of Part 4 of the Act.

Clauses 2.6.6 and 2.7.2 of the IDD require disclosure of a range of schedules containing forecast information (listed below) prior to the start of each disclosure year i.e., before 1 April 2018 for the disclosure year 1 April 2018 to 31 March 2019. Directors' certification is provided at the end of this document (Clause 2.9.1 of the IDD).

Schedule	Information provided
11a	Forecast Capital Expenditure
11b	Forecast Operational Expenditure
12a	Asset condition
12b	Forecast capacity
12c	Forecast network demand
12d	Forecast interruptions and durations
14a	Mandatory notes to accompany the schedules

This forecast information is usually included in an Asset Management Plan (AMP) which is required by the IDD to be published before 1 April of each year. Powerco has an exemption from publishing an AMP because of the timing of the AMP published with its Customised Price Path application. In addition, the Commission granted Powerco a one-off extension (Attachment 1) to 31 May 2018 so it could reflect the Commission's Customised Price Path Determination published on 29 March 2018.

Powerco will publish an Asset Management Plan in March 2019.

Schedule 11a: Forecast Capital Expenditure

Company I												Powerco	
									AMA D	Planning Period	1 April	2018 – 31 Marc	h 2028
									AWIT		1 April 1	Loro Srimare	12020
SCH	IEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDI	TURE											
This s	chedule requires a breakdown of forecast expenditure on assets for the current discl	osure year and a 10 year	ar planning period. Th	ne forecasts should l	pe consistent with th	e supporting informa	tion set out in the Al	MP. The forecast is to	be expressed in both	h constant price and	nominal dollar terms	. Also required is a f	orecast of the
value	of commissioned assets (i.e., the value of RAB additions)												
EDBs	must provide explanatory comment on the difference between constant price and non	ninal dollar forecasts c	of expenditure on asse	ets in Schedule 14a (Mandatory Explanat	ory Notes).							
INIST	nformation is not part of audited disclosure information.												
sch ref													
7			Current Voor CV	CV+1	CY+2	CVIS	CVIA	CVIE	CVIE	CV+7	CVIR	CYIO	CV+10
í.			current rear er	0//1	0172	6775	0114	0115	6110	0117	0110	0115	01110
8		for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28
9	11a(i): Expenditure on Assets Forecast		\$000 (in nominal dolla	ars)									
10	Concurrence connection	Ĺ	25 107	22.040	22 724	22 760	20.019	22 706	20.756	26 214	24 691	22.224	22 271
10	System growth	-	33,107	53,049	55,724	53,709	50,018	52,750	62 222	50,314	72 202	67.490	70.622
11	System gi own	-	70,000	75,003	94,216	00,580	04,010	03,531	05,555	03,424	72,303	07,485	104.032
12	Asset repracement and renewal	-	70,096	75,997	04,310	92,989	97,015	94,075	90,905	94,/52	20,057	33,784	104,976
15	Asset relocations	L	2,243	2,314	2,433	2,464	2,515	2,542	2,595	2,054	2,/1/	2,/00	2,000
14	Renability, salety and environment.	r	2 200	2 720	1 205	1.214	2 200	2.427	2.054	2.004	2.027	2.445	2.474
15	Quality of supply	-	2,389	2,730	4,295	4,211	3,200	3,127	3,951	3,194	2,687	2,115	2,171
10	Legislative and regulatory		-	2.045	2,438	2,492	2 700	-	1 405	- 1 204	1 202	-	1 202
17	Tetal a list lite and an immediate	ł	2,502	5,045	3,542	5,597	5,700	4,220	1,465	1,204	1,505	760	1,205
18	Total reliability, safety and environment		4,691	5,775	10,275	10,100	6,966	7,355	5,436	4,398	4,050	2,875	3,454
19	Expenditure on network assets	ŀ	156,821	181,804	186,532	200,322	201,128	200,299	198,023	203,542	210,408	205,270	215,021
20	Expenditure on non-network assets	ł	17,776	25,867	10,372	16,161	10,211	9,870	5,178	3,949	6,468	6,115	5,744
21	Expenditure on assets	Ļ	174,597	207,671	196,904	216,483	211,339	210,169	203,201	207,491	216,876	211,385	220,765
22	· · · · · · · · · · · · · · · · · · ·	r				· · · · · · · · · · · · · · · · · · ·					r		
23	plus Cost of financing	-	2,078	3,780	2,153	2,663	3,897	3,880	431	489	-	-	-
24	less Value of capital contributions	-	23,700	23,425	23,150	23,206	20,731	22,429	20,543	24,669	23,604	22,077	22,723
25	plus Value of vested assets	L	-	-	-	-	-	-	-	-	-	-	-
26		r										100.000	
27	Capital expenditure forecast	L	152,975	188,026	175,907	195,940	194,505	191,620	183,089	183,311	193,272	189,308	198,042
28		r											
29	Assets commissioned	L	116,022	220,284	166,854	175,577	211,735	216,265	176,760	188,701	188,615	190,418	195,596
30			Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	СҮ+6	CY+7	CY+8	CY+9	CY+10
31		for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28
32	Common and the	ŕ	5000 (in 2018 constar	t prices)	24.544	20.042	26 700	20 747	25,402	20,420	20.425	25.070	25.450
33	Consumer connection		35,107	31,831	31,541	30,913	26,790	28,/1/	25,492	30,430	28,425	25,978	26,158
34	System growth		44,684	62,166	51,606	54,662	56,473	54,279	53,034	53,955	57,886	52,911	54,085
35	Asset replacement and renewal	-	70,096	/2,4/1	/8,081	84,233	85,444	81,195	81,646	/7,890	//,500	/8,353	80,440
36	Asset relocations		2,243	2,251	2,310	2,308	2,282	2,261	2,256	2,258	2,260	2,271	2,143
37	Reliability, safety and environment:	r							A 177				
38	Quality of supply	-	2,389	2,667	4,107	3,945	2,929	2,796	3,452	2,727	2,242	1,724	1,729
39	Legislative and regulatory	-	-	-	2,313	2,312	-	-	-	-	-	-	
40	Other reliability, safety and environment	-	2,302	2,788	3,089	2,885	3,103	3,449	1,197	968	1,063	569	956
41	lotal reliability, safety and environment	-	4,691	5,455	9,509	9,142	6,032	6,245	4,649	3,695	3,305	2,293	2,685
42	Experior Ure on network assets	-	156,821	1/4,1/4	1/3,04/	181,258	177,021	172,697	167,077	168,228	109,376	161,806	165,511
43	Expenditure on non-network assets		17,776	25,399	9,997	15,286	9,432	8,903	4,561	3,397	5,434	5,016	4,602
44	Expenditure on assets		174,597	199,573	183,044	196,544	186,453	181,600	171,638	171,625	174,810	166,822	170,113

										T INANOI			.000112 2010
45													
46	Subcomponents of expenditure on assets (where known)	_											
47	Energy efficiency and demand side management, reduction of energy los	ses											
48	Overhead to underground conversion												
49	Research and development	L											
50													
51			Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
52		for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28
53	Difference between nominal and constant price forecasts		000										
54	Consumer connection		-	1,218	2,183	2,856	3,228	4,079	4,264	5,884	6,256	6,356	7,113
55	System growth		-	2,503	4,178	6,318	8,143	9,252	10,299	11,469	14,417	14,578	16,547
56	Asset replacement and renewal		-	3,526	6,235	8,756	11,571	12,880	15,259	16,862	19,157	21,431	24,536
57	Asset relocations		-	63	123	176	231	281	337	396	457	517	545
58	Reliability, safety and environment:	_											
59	Quality of supply		-	63	188	266	271	331	499	467	445	391	442
60	Legislative and regulatory		-	-	125	180		-	-	-	-	-	-
61	Other reliability, safety and environment		-	257	453	512	663	779	288	236	300	191	327
62	Total reliability, safety and environment		-	320	766	958	934	1,110	787	703	745	582	769
63	Expenditure on network assets		-	7,630	13,485	19,064	24,107	27,602	30,946	35,314	41,032	43,464	49,510
64	Expenditure on non-network assets		-	468	375	875	779	967	617	552	1,034	1,099	1,142
65	Expenditure on assets		-	8,098	13,860	19,939	24,886	28,569	31,563	35,866	42,066	44,563	50,652
66													
67			Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5					
		for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23					
68	11a(ii): Consumer Connection												
69	Consumer types defined by EDB*	2	000 (in constant pri	ces)									
70	All Consumers		35,107	31,831	31,541	30,913	26,790	28,717					
71	[EDB consumer type]												
72	[EDB consumer type]	_											
73	[EDB consumer type]												
74	[EDB consumer type]	L											
75	*include additional rows if needed												
76	Consumer connection expenditure	-	35,107	31,831	31,541	30,913	26,790	28,717					
77	less Capital contributions funding consumer connection	-	22,490	21,433	20,702	20,308	17,613	18,793					
78	Consumer connection less capital contributions	L	12,617	10,398	10,839	10,605	9,177	9,924					
70	11a(iii): Systom Growth												
79	IIa(iii). System Glowin	r			r								
80	Subtransmission		12.265	20.651	19,740	18,762	24,957	21,479					
81	Zone substations	ļ	9,653	17,943	5,864	18,621	14,519	16,925					
81 82	Zone substations Distribution and LV lines		9,653 3,784	17,943 3,482	5,864 5,198	18,621 3,322	14,519 3,136	16,925 3,212					
81 82 83	Zone substations Distribution and LV lines Distribution and LV cables	-	9,653 3,784 4,687	17,943 3,482 4,216	5,864 5,198 4,723	18,621 3,322 2,978	14,519 3,136 2,983	16,925 3,212 3,429					
81 82 83 84	Zone substations Distribution and LV lines Distribution and LV cables Distribution substations and transformers		9,653 3,784 4,687 666	17,943 3,482 4,216 611	5,864 5,198 4,723 3,252	18,621 3,322 2,978 2,532	14,519 3,136 2,983 1,211	16,925 3,212 3,429 559					
81 82 83 84 85	Zone substations Distribution and LV lines Distribution and LV cables Distribution substations and transformers Distribution switchgear Other network occorr		9,653 3,784 4,687 666 3,801	17,943 3,482 4,216 611 3,487 11,775	5,864 5,198 4,723 3,252 5,196	18,621 3,322 2,978 2,532 3,318	14,519 3,136 2,983 1,211 3,141	16,925 3,212 3,429 559 3,353					
81 82 83 84 85 86 87	Zone substations Distribution and LV lines Distribution and LV cables Distribution substations and transformers Distribution switchgear Other network assets Switch growth expanditure		9,653 3,784 4,687 666 3,801 9,828	17,943 3,482 4,216 611 3,487 11,776 6,3 166	5,864 5,198 4,723 3,252 5,196 7,633	18,621 3,322 2,978 2,532 3,318 5,129	14,519 3,136 2,983 1,211 3,141 6,526	16,925 3,212 3,429 559 3,353 5,322 5,4 270					
81 82 83 84 85 86 87 88	Zone substations Distribution and LV lines Distribution and LV cables Distribution substations and transformers Distribution switchgear Other network assets System growth expenditure		9,653 3,784 4,687 666 3,801 9,828 44,684	17,943 3,482 4,216 611 3,487 11,776 62,166	5,864 5,198 4,723 3,252 5,196 7,633 51,606	18,621 3,322 2,978 2,532 3,318 5,129 54,662	14,519 3,136 2,983 1,211 3,141 6,526 56,473	16,925 3,212 3,429 559 3,353 5,322 54,279					
81 82 83 84 85 86 87 88 88	Zone substations Distribution and LV lines Distribution and LV cables Distribution substations and transformers Distribution switchgear Other network assets System growth expenditure less Capital contributions funding system growth System growth besc scalatel contributions		9,653 3,784 4,687 666 3,801 9,828 44,684	17,943 3,482 4,216 611 3,487 11,776 62,166	5,864 5,198 4,723 3,252 5,196 7,633 51,606	18,621 3,322 2,978 2,532 3,318 5,129 54,662	14,519 3,136 2,983 1,211 3,141 6,526 56,473	16,925 3,212 3,429 559 3,353 5,322 5,322 5,4279					

91			Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
92		for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
93	11a(iv): Asset Replacement and Renewal		\$000 (in constant pr	ices)				
94	Subtransmission		4,742	4.505	6.439	4,775	3,868	2.612
95	Zone substations		12.982	15.057	12.495	12.879	12,488	10.796
96	Distribution and LV lines		26.956	29.825	35,983	42.006	45,543	47.042
97	Distribution and LV cables		6,987	6,634	6,767	6,751	6,285	5,687
98	Distribution substations and transformers		6,299	6,969	6,965	7,077	6,833	6,719
99	Distribution switchgear		9,396	8,775	8,616	8,360	8,297	6,950
100	Other network assets		2,734	706	816	2,385	2,130	1,389
101	Asset replacement and renewal expenditure		70,096	72,471	78,081	84,233	85,444	81,195
102	less Capital contributions funding asset replacement and renewal		6	-	-	-	-	
103	Asset replacement and renewal less capital contributions		70,090	72,471	78,081	84,233	85,444	81,195
104								
105			Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
106		for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
	11-a/whAssat Palasations							
107			6000 (in sometime)	()				
108	Project or programme -	1	SUUU (in constant pr	icesj			1	
109	[Description of material project or programme]							
110	[Description of material project or programme]							
111	[Description of material project or programme]							
112	[Description of material project or programme]							
110	*include additional rows if needed							
114	All other project or programmes - asset relocations		2 2/13	2 251	2 310	2 308	2 282	2 261
116	Asset relocations expenditure		2,243	2,251	2,310	2,308	2,282	2,261
117	less Capital contributions funding asset relocations		1,204	1,515	1,514	1,514	1,496	1.477
118	Asset relocations less capital contributions		1,039	736	796	794	786	784
119								
120			Current Year CY	CY+1	CY+2	CY+3	CY+4	СҮ+5
121		for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
122	11a(vi):Quality of Supply							
123	Project or programme*		\$000 (in constant pr	ices)				
124	[Description of material project or programme]		,					
125	[Description of material project or programme]							
126	[Description of material project or programme]							
127	[Description of material project or programme]							
128	[Description of material project or programme]							
129	*include additional rows if needed							
130	All other projects or programmes - quality of supply		2,389	2,667	4,107	3,945	2,929	2,796
131	Quality of supply expenditure		2,389	2,667	4,107	3,945	2,929	2,796
132	less Capital contributions funding quality of supply		-	-	-	-	-	
133	Quality of supply less capital contributions		2,389	2,667	4,107	3,945	2,929	2,796

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
	for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
11a(vii): Legislative and Regulatory							
Project or programme*		\$000 (in constant pri	ces)				
Secondary systems (relay replacement for extended reserves)	ľ	-	-	2,313	2,312	-	-
[Description of material project or programme]							
[Description of material project or programme]							
[Description of material project or programme]							
[Description of material project or programme]							
*include additional rows if needed	-						
All other projects or programmes - legislative and regulatory	ł						
Legislative and regulatory expenditure	Ļ	-		2,313	2,312	-	-
less Capital contributions funding legislative and regulatory	ŀ	-	-	-	-	-	-
Legislative and regulatory less capital contributions	L			2,313	2,312		-
	6	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
11a(viii): Other Reliability, Safety and Environment	for year ended	31 Mar 18	31 War 19	31 Mar 20	31 War 21	31 War 22	31 War 23
Project or programme*		\$000 (in constant pri	res)				
	ŕ	1 512	1 165	1 476	1 275	1 570	1.062
Distribution transformers		789	1,064	1.055	1,053	1,002	973
Distribution switchgear			559	558	557	531	514
[Description of material project or programme]							
[Description of material project or programme]							
*include additional rows if needed							
All other projects or programmes - other reliability, safety and environment	t	-	-	-	-	-	-
Other reliability, safety and environment expenditure							
	Ļ	2,302	2,788	3,089	2,885	3,103	3,449
less Capital contributions funding other reliability, safety and environment	ļ	2,302	2,788	3,089	2,885	3,103	3,449
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions		2,302 2,302	2,788 2,788	3,089 3,089	2,885 2,885	3,103 3,103	3,449 3,449
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions	ŀ	2,302 2,302	2,788 2,788	3,089 3,089	2,885 2,885	3,103 3,103	3,449 3,449
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions	ł	2,302 2,302	2,788 2,788 CY+1	3,089 3,089 CY+2	2,885 2,885 CY+3	3,103 3,103 CY+4	3,449 3,449 CY+5
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions	for year ended	2,302 2,302 Current Year CY 31 Mar 18	2,788 2,788 CY+1 31 Mar 19	3,089 3,089 CY+2 31 Mar 20	2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885 2,885	3,103 3,103 CY+4 31 Mar 22	3,449 3,449 CY+5 31 Mar 23
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions	for year ended	2,302 2,302 Current Year CY 31 Mar 18	2,788 2,788 CY+1 31 Mar 19	3,089 3,089 <i>CY+2</i> 31 Mar 20	2,885 2,885 CY+3 31 Mar 21	3,103 3,103 <i>CY+4</i> 31 Mar 22	3,449 3,449 CY+5 31 Mar 23
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets	for year ended	2,302 2,302 Current Year CY 31 Mar 18	2,788 2,788 CY+1 31 Mar 19	3,089 3,089 <i>CY+2</i> 31 Mar 20	2,885 2,885 CY+3 31 Mar 21	3,103 3,103 <i>CY+4</i> 31 Mar 22	3,449 3,449 CY+5 31 Mar 23
Itaa(ix): Non-Network Assets Routine expenditure	for year ended	2,302 2,302 Current Year CY 31 Mar 18	2,788 2,788 CY+1 31 Mar 19	3,089 3,089 <i>CY+2</i> 31 Mar 20	2,885 2,885 CY+3 31 Mar 21	3,103 3,103 <i>CY+4</i> 31 Mar 22	3,449 3,449 CY+5 31 Mar 23
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme*	for year ended	2,302 2,302 Current Year CY 31 Mar 18 \$000 (in constant pri	2,788 2,788 CY+1 31 Mar 19	3,089 3,089 <i>CY+2</i> 31 Mar 20	2,885 2,885 CY+3 31 Mar 21	3,103 3,103 CY+4 31 Mar 22	3,449 3,449 CY+5 31 Mar 23
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* ICT capex Security Control of Co	for year ended	2,302 2,302 Current Year CY 31 Mar 18 \$000 (in constant pri 13,217	2,788 2,788 CY+1 31 Mar 19 19,454 600	3,089 3,089 CY+2 31 Mar 20 8,658	2,885 2,885 CY+3 31 Mar 21	3,103 3,103 CY+4 31 Mar 22 7,023	3,449 3,449 CY+5 31 Mar 23 6,784
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* ICT capex Facilities capex Description of contribution of control or programme	for year ended	2,302 2,302 Current Year CY 31 Mar 18 \$000 (in constant pri 13,217 239	2,788 2,788 CY+1 31 Mar 19 :es) 19,454 699	3,089 3,089 CY+2 31 Mar 20 8,658 245	2,885 2,885 CY+3 31 Mar 21 13,539 713	3,103 3,103 CY+4 31 Mar 22 7,023 121	3,449 3,449 CY+5 31 Mar 23 6,784 499
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* ICT capex Facilities capex [Description of material project or programme] [Description of material project or programme]	for year ended	2,302 2,302 Current Year CY 31 Mar 18 \$000 (in constant pri 13,217 239	2,788 2,788 CY+1 31 Mar 19 :es) 19,454 699	3,089 3,089 CY+2 31 Mar 20 8,658 245	2,885 2,885 CY+3 31 Mar 21 13,539 713	3,103 3,103 CY+4 31 Mar 22 7,023 121	3,449 3,449 CY+5 31 Mar 23 6,784 499
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* ICT capex Facilities capex [Description of material project or programme] [Description of material project or programme]	for year ended	2,302 2,302 Current Year CY 31 Mar 18 \$000 (in constant pri 13,217 239	2,788 2,788 CY+1 31 Mar 19 205) 19,454 699	3,089 3,089 CY+2 31 Mar 20 8,658 245	2,885 2,885 CY+3 31 Mar 21 13,539 713	3,103 3,103 CY+4 31 Mar 22 7,023 121	3,449 3,449 CY+5 31 Mar 23 6,784 499
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less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* [CT capex Facilities capex [Description of material project or programme] [Description of m	for year ended	2,302 2,302 Current Year CY 31 Mar 18 5000 (in constant pri 13,217 239 13,456	2,788 2,788 CY+1 31 Mar 19 :es) 19,454 639 20,153	3,089 3,089 CY+2 31 Mar 20 8,658 245 245 8,903	2,885 2,885 CY+3 31 Mar 21 13,539 713 14,252	3,103 3,103 CY+4 31 Mar 22 7,023 121 7,144	3,449 3,449 CY+5 31 Mar 23 6,784 499 7,283
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less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* [CT capex Facilities capex [Description of material project or programme] [Description of material project or programme] Project or programme* Facilities capex Project or programme* Facilities capex [Description of material project or programme] [Description of material project or programme]	for year ended	2,302 2,302 2,302 31 Mar 18 \$000 (in constant pri 13,217 239 13,456 4,320	2,788 2,788 CY+1 31 Mar 19 20,153 20,153	3,089 3,089 CY+2 31 Mar 20 8,658 245 8,903 8,903	2,885 2,885 CY+3 31 Mar 21 13,539 713 14,252 1,034	3,103 3,103 CY+4 31 Mar 22 7,023 121 7,144 2,288	3,449 3,449 CY+5 31 Mar 23 6,784 499 7,283 1,620
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* [CT capex Facilities capex [Description of material project or programme] [Description of material project or programme] *include additional rows if needed All other projects or programme* Facilities capex [Description of material project or programme] [Description of material project or programme]	for year ended	2,302 2,302 2,302 31 Mar 18 \$000 (in constant pri- 13,217 239 13,456 4,320	2,788 2,788 CY+1 31 Mar 19 20,153 20,153	3,089 3,089 CY+2 31 Mar 20 8,658 245 245 245 245 245 245	2,885 2,885 CY+3 31 Mar 21 13,539 713 14,252 1,034	3,103 3,103 CY+4 31 Mar 22 7,023 121 7,144 2,288	3,449 3,449 CY+5 31 Mar 23 6,784 499 7,283 1,620
less Capital contributions funding other reliability, safety and environment Other reliability, safety and environment less capital contributions 11a(ix): Non-Network Assets Routine expenditure Project or programme* [CT capex facilities capex facilities capex [Description of material project or programme] [Description of material project or programme] Note: Routine expenditure Project or programme* [Description of material project or programme] [Description of material project or	for year ended	2,302 2,302 2,302 2,302 2,302 2,302 31 Mar 18 \$000 (in constant pri 13,217 239 13,456 13,456 4,320	2,788 2,788 CY+1 31 Mar 19 :es) 19,454 699 20,153 20,153	3,089 3,089 CY+2 31 Mar 20 8,658 245 245 245 245 245 245 245 245 245 245	2,885 2,885 CY+3 31 Mar 21 13,539 713 14,252 1,034	3,103 3,103 CY+4 31 Mar 22 7,023 121 7,144 2,288	3,449 3,449 CY+5 31 Mar 23 6,784 499 7,283 1,620
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les Capital contributions funding other reliability, safety and environment Coher reliability, safety and environment less capital contributions Stafic Capex Facilities capex Tecription of material project or programme] Description of material project	for year ended	2,302 2,302 2,302 2,302 2,302 31 Mar 18 5000 (in constant pri 13,217 239 13,456 4,320 4,320	2,788 2,788 CY+1 31 Mar 19 :es) 19,454 639 20,153 20,153	3,089 3,089 (Y+2 31 Mar 20 8,658 245 245 245 245 245 245 245 245 245 245	2,885 2,885 CY+3 31 Mar 21 13,539 713 14,252 1,034	3,103 3,103 3,103 CY+4 31 Mar 22 7,023 121 7,144 2,288 2,288	3,449 3,449 CY+5 31 Mar 23 6,784 499 7,283 1,620

Schedule 11b: Forecast Operational Expenditure

									Company Name		Powerco	
								AMP	Planning Period	1 April 2	2018 – 31 Marc	h 2028
SC	CHEDULE 11b: REPORT ON FORECAST OPERATIONAL EXPE	NDITURE										
Thi	s schedule requires a breakdown of forecast operational expenditure for the disclosure ve	ar and a 10 year plannin	g period. The forecast	s should be consiste	nt with the supportin	g information set ou	t in the AMP. The for	ecast is to be express	ed in both constant	price and nominal de	llar terms.	
EDE	as must provide explanatory comment on the difference between constant price and nomina	al dollar operational exp	enditure forecasts in	Schedule 14a (Mand	atory Explanatory No	otes).						
Thi	s information is not part of audited disclosure information.											
sch re	f											
7		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
8	for year end	led 31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28
9	Operational Expenditure Forecast	\$000 (in nominal dol	lars)									
10	Service interruptions and emergencies	5,759	7,224	7,788	8,058	8,148	8,243	8,460	8,683	8,912	9,147	9,388
11	Vegetation management	6,309	10,367	9,840	9,742	10,236	9,814	9,755	8,828	9,005	9,185	9,162
12	Routine and corrective maintenance and inspection	9,311	15,602	16,786	17,363	16,516	16,679	13,154	12,959	13,985	13,534	14,235
13	Asset replacement and renewal	10,030	9,582	10,880	11,207	10,464	10,256	12,695	11,828	12,105	12,388	12,678
14	Network Opex	31,409	42,775	45,294	46,370	45,364	44,992	44,064	42,298	44,007	44,254	45,463
15	System operations and network support	11,566	17,677	18,765	19,410	19,114	19,401	20,682	20,712	20,930	21,204	21,481
16	Business support	29,116	31,933	33,571	33,880	33,967	33,738	34,930	35,496	36,242	37,011	37,799
17	Non-network opex	40,682	49,610	52,336	53,290	53,081	53,139	55,612	56,208	57,172	58,215	59,280
18	Operational expenditure	72,091	92,385	97,630	99,660	98,445	98,131	99,676	98,506	101,179	102,469	104,743
10		Current Veer CV	CV:1	CV 12	CVIZ	CVIA	CVIE	CVIE	CVIZ	CVIR	CYIO	CV/10
20	for year end	led 31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28
20	loi year en	JI Wall 10	51 10101 15	51 Wal 20	51 10101 21	51 19101 22	51 10181 25	51 14181 24	51 Wai 25	51 Wiai 20	51 14101 27	51 Wiai 20
21		\$000 (in 2018 consta	ant prices)									
22	Service interruptions and emergencies	5.759	7.030	7.389	7,465	7.378	7.294	7.317	7.340	7.362	7,385	7,407
23	Vegetation management	6,309	10,088	9,335	9,025	9,268	8,685	8,437	7,462	7,439	7,415	7,229
24	Routine and corrective maintenance and inspection	9,311	15,150	15,866	16,006	14,868	14,661	11,290	10,861	11,444	10,813	11,105
25	Asset replacement and renewal	10,030	9,303	10,284	10,331	9,419	9,015	10,896	9,913	9,906	9,898	9,891
26	Network Opex	31,409	41,571	42,874	42,827	40,933	39,655	37,940	35,576	36,151	35,511	35,632
27	System operations and network support	11,566	17,272	17,935	18,159	17,510	17,403	18,166	17,813	17,625	17,483	17,343
28	Business support	29,116	30,977	31,670	31,146	30,481	29,550	29,867	29,625	29,526	29,434	29,339
29	Non-network opex	40,682	48,249	49,605	49,305	47,991	46,953	48,033	47,438	47,151	46,917	46,682
30	Operational expenditure	72,091	89,820	92,479	92,132	88,924	86,608	85,973	83,014	83,302	82,428	82,314
31	Subcomponents of operational expenditure (where known)											
32	Energy efficiency and demand side management, reduction of		r				r		r			
33	energy losses									+		
34	Direct billing*											
35	Research and Development											
36	Insurance					I						
29	Direct bining expenditure by suppliers that arrect bin the majority of their consumers											
20		Current Vear CV	CV+1	CV+2	CV+3	CV+4	CV+5	CV+6	CV+7	CV+8	CV+0	CV+10
40	for year end	led 31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28
40			51 110 15	51 1101 20	51 110 21	51 110. 22	52 1110 25	51 110 24	52 110 25	51 110 20	51 110 27	51 110 20
41	Difference between nominal and real forecasts	\$000										
42	Service interruptions and emergencies	-	194	399	593	770	949	1,143	1,343	1,550	1,762	1,981
43	Vegetation management		279	505	717	968	1,129	1,318	1,366	1,566	1,770	1,933
44	Routine and corrective maintenance and inspection		452	920	1,357	1,648	2,018	1,864	2,098	2,541	2,721	3,130
45	Asset replacement and renewal	-	279	596	876	1,045	1,241	1,799	1,915	2,199	2,490	2,787
46	Network Opex	-	1,204	2,420	3,543	4,431	5,337	6,124	6,722	7,856	8,743	9,831
47	System operations and network support	-	405	830	1,251	1,604	1,998	2,516	2,899	3,305	3,721	4,138
48	Business support	-	956	1,901	2,734	3,486	4,188	5,063	5,871	6,716	7,577	8,460
49	Non-network opex	-	1,361	2,731	3,985	5,090	6,186	7,579	8,770	10,021	11,298	12,598
50	Operational expenditure	-	2,565	5,151	7,528	9,521	11,523	13,703	15,492	17,877	20,041	22,429

Schedule 12a: Asset condition

Company Name	Powerco Limited
AMP Planning Period	1 April 2018 - 31 March 2028

SCHEDULE 12a: REPORT ON ASSET CONDITION

sch ref

This schedule requires a breakdown of asset condition by asset class as at the start of the forecast year. The data accuracy assessment relates to the percentage values disclosed in the asset condition columns. Also required is a forecast of the percentage of units to be replaced in the next 5 years. All information should be consistent with the information provided in the AMP and the expenditure on assets forecast in Schedule 11a. All units relating to cable and line assets, that are expressed in km, refer to circuit lengths.

7				Asset condition at start of planning period (percentage of units by grade)								
8	Voltage	e Asset category	Asset class	Units	Grade 1	Grade 2	Grade 3	Grade 4	Grade unknown	Data accuracy (1–4)	% of asset forecast to be replaced in next 5 years	
10	All	Overhead Line	Concrete poles / steel structure	No.	1.5%	1.7%	8.9%	87.9%	-	4	2.8%	
11	All	Overhead Line	Wood poles	No.	10.4%	13.6%	38.7%	37.3%	-	4	23.4%	
12	All	Overhead Line	Other pole types	No.	-	-	-	26.2%	73.8%	1	L -	
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	2.6%	0.8%	15.7%	80.9%	-	4	4.9%	
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	-	-	-	-	-	N/A	-	
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	-	-	15.5%	84.5%	-	4	- 1	
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	-	-	17.3%	82.7%	-	4	- 1	
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	-	-	-	-	-	N/A	-	
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	-	-	8.7%	91.3%	-	4	- 1	
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	-	-	-	-	-	N/A	-	
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	-	-	-	-	-	N/A	-	
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	-	-	-	-	-	N/A	-	
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	-	-	-	-	-	N/A	-	
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	-	-	-	-	-	N/A	-	
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	6.9%	44.1%	7.8%	41.2%	-	3	3 20.6%	
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	-	-	-	-	-	N/A	-	
26	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	-	4.6%	-	95.4%	-	4	- 1	
27	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	-	1.1%	50.6%	48.3%	-	4	23.6%	
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	-	-	-	91.3%	8.7%	2		
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	19.0%	3.9%	37.7%	39.4%	-	4	13.9%	
30	HV	Zone substation switchgear	33kV RMU	No.	-	-	100.0%	-	-	4	- 1	
31	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	-	-	-	-	-	N/A	-	
32	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	-	-	36.8%	63.2%	-	4	<u>-</u> ا	
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	-	2.9%	37.5%	59.7%	-	4	1 22.0%	
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	-	-	12.0%	88.0%	-		4.0%	

Asset condition at start of planning period (percentage of units by grade)

10 10<	20	Voltage	Asset category	Asset class	Units	Grade 1	Grade 2	Grade 3	Grade 4	Grade unknown	Data accuracy (1–4)	% of asset forecast to be replaced in next 5 years
My Distribution line Distribution UN Distribution UN	39	HV	Zone Substation Transformer	Zone Substation Transformers	No	4.2%	1.6%	50.8%	43 5%	_	4	9.4%
4 W Distribution lineDistribution OH Aerial Cable Conductor Km C_{1} C_{2} C_{1} C_{1} V_{1} V_{1} 42 W Distribution lineSWER conductor Km C_{1} C_{2} T_{2}	40	HV	Distribution Line	Distribution OH Open Wire Conductor	km	16.5%	1.1%	18.8%	63.6%	-	3	7 5%
Inv Distribution Line SWER conductor km 1 22.7% 77.3% 1 1 Id UN Distribution Cable Distribution UG KJE or VC km 1.8% 0.0% 11.3% 86.8% 1 3 Id HV Distribution Cable Distribution Submarine Cable km 4.66 . 12.0% 83.5% . 3 Id HV Distribution Cable Distribution Submarine Cable km . 0.9% 0.5% 5.6% 93.0% . . Id HV Distribution switchgear 33/6.6/11/22KV CG (Indoor) No. 0.45% 4.10% 8.0% 66.3% . . . Id HV Distribution switchgear 33/6.6/11/22KV SUR (Indoor) No. 0.31% 2.7% 3.00% 66.3% . 0.4 Id HV Distribution switchgear 33/6.6/11/22KV SUR (Indoor) No. 0.23% 2.7% 3.0% 66.3% . 0.4 Id HV Distribution switchgear 33/6.6/11/22KV SUR (Indoor) No. 0.45%	41	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km		-	-	-	_	N/A	-
HV Distribution Cable Distribution UG NUPE or PVC km 1.8% 0.0% 11.3% 86.8% 9 1 HV Distribution Cable Distribution UG PILC km 4.65 12.0% 83.5% 3 3 HV Distribution Cable Distribution Submarine Cable km 4.65 12.0% 83.5% 3 4 4 HV Distribution Switchgear 3.3/6.6/11/22.VV CB (pole mounted) - reclosers and sectionalisers No. 0.9% 0.5% 5.6% 93.0% 4.6 4 4 HV Distribution switchgear 3.3/6.6/11/22.VV Suitch (groud mounted) - except RMU No. 4.5% 4.10% 8.0% 4.6.5% 4.6 4 4 HV Distribution switchgear 3.3/6.6/11/22.VV SWItch (groud mounted) - except RMU No. 1.13% 8.6% 46.5% 4.6 4	42	HV	Distribution Line	SWER conductor	km	-	-	22.7%	77.3%	-	3	2.8%
44HVDistribution CableDistribution GDILCkm4.6%1.2.0%83.5%45HVDistribution CableDistribution Submarine Cablekm <th>43</th> <th>HV</th> <th>Distribution Cable</th> <th>Distribution UG XLPE or PVC</th> <th>km</th> <th>1.8%</th> <th>0.0%</th> <th>11.3%</th> <th>86.8%</th> <th>-</th> <th>3</th> <th>2.1%</th>	43	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1.8%	0.0%	11.3%	86.8%	-	3	2.1%
HVDistribution CableDistribution SubtragerSite Site Site Site Site Site Site Site	44	HV	Distribution Cable	Distribution UG PILC	km	4.6%	-	12.0%	83.5%	-	3	2.7%
HPixt bit/bit on switchger $3./6.6/11/22kV CB (pole mounted) - reclosers and sectionalisersNo.0.9\%0.5\%5.6\%9.3.0\%0.6\%0.6\%HVDistribution switchger3./6.6/11/22kV CB (indoor)No.0.4.5\%4.1.0\%8.0\%4.6.5\%0.6.6.5\%0.6.7\%0.6.7\%HVDistribution switchger3./6.6/11/22kV Switch and fuse (ople mounted) - except RMUNo.0.1.1\%0.3.1\%0.7\%0.3.0\%0.6.4.3\%0.6.4.3\%0.6.4.3\%0.6.6.4.3\%0.6.6.4\%0.6.7\%0.$	45	HV	Distribution Cable	Distribution Submarine Cable	km	-	-	-	100.0%	-	3	-
HV Distribution witchear $3.3/6.6/11/22.W G (indor)$ No. $4.5%$ $41.0%$ $8.0%$ $46.5%$ $()$ HV Distribution switchear $3.3/6.6/11/22.W S (indor)$ No. $3.1%$ $2.7%$ $3.0.0%$ $64.3%$ $()$ HV Distribution switchear $3.3/6.6/11/22.W S (indor) munched) - except RMU No. 12.7% 17.7% 39.7% 45.9% () IV Distribution switchear 3.3/6.6/11/22.W S (indor) munched) - except RMU No. 12.7% 17.7% 39.7% 45.9% (($	46	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	0.9%	0.5%	5.6%	93.0%	-	4	0.2%
HVDistribution switchgear3.3/6.6/11/22kV switche and fuses (pole mounted) - except RMUNo.3.1%2.7%30.0%64.3%C349HVDistribution switchgear3.3/6.6/11/22kV switch (ground mounted) - except RMUNo.12.7%1.7%39.7%45.9%CCA50HVDistribution switchgear3.3/6.6/11/22kV switch (ground mounted) - except RMUNo.12.7%1.7%39.7%45.9%CCA51HVDistribution TransformerOld Mounted TransformerNo.0.23%22.1%20.2%77.5%CCC52HVDistribution TransformerVoltage regulatorsNo.0.6%1.2%13.8%84.3%CAC54HVDistribution SubstationsGround Mounted Substation HousingNo.0.6%1.4%14.1%83.3%CAC54HVDistribution SubstationsGround Mounted Substation HousingNo.0.6%1.4%14.1%83.3%CAC54HVDistribution SubstationsGround Mounted Substation HousingNo.0.6%1.4%14.1%83.3%CAC55LVLV Istreet ightingLV OE ConductorKm1.2%1.6%2.7%66.0%C2.6%2.6%56LVLV Street ightingLV OE ConductorKm1.0%1.1%3.1%6.6%C2.6%2.6%2.6%2.6%2.6%2	47	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	4.5%	41.0%	8.0%	46.5%	-	4	50.3%
49HVDistribution switchgear3.3/6.6/11/22kV Switch (ground mounted) - except RMUNo.12.7%1.7%39.7%45.9%	48	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	3.1%	2.7%	30.0%	64.3%	-	3	7.2%
50HVDistribution switchgear3.3/6.6/11/22kV RMUNo.14.8%1.4%16.9%66.9%51HVDistribution TransformerPole Mounted TransformerNo.2.3%2.1%20.2%75.4%	49	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	12.7%	1.7%	39.7%	45.9%	-	4	11.0%
51HVDistribution TransformerPole Mounted TransformerNo.2.3%2.1%20.2%75.4%Com352HVDistribution TransformerGround Mounted TransformerNo.0.6%1.2%13.8%84.3%04653HVDistribution TransformerVoltage regulatorsNo.0.6%1.4%86.6%87.9%04654HVDistribution SubstationsGround Mounted Substation HousingNo.0.6%1.4%14.7%83.3%000055LVLV CableLV Of CoductorKm0.2%1.6%27.7%69.5%02000 <th>50</th> <th>HV</th> <th>Distribution switchgear</th> <th>3.3/6.6/11/22kV RMU</th> <th>No.</th> <th>14.8%</th> <th>1.4%</th> <th>16.9%</th> <th>66.9%</th> <th>-</th> <th>4</th> <th>15.3%</th>	50	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	14.8%	1.4%	16.9%	66.9%	-	4	15.3%
52HVDistribution TransformerGround Mounted TransformerNo.0.6%1.2%13.8%84.3%04453HVDistribution TransformerVoltage regulatorsNo.3.4%8.6%8.7.9%4554HVDistribution SubstationsGround Mounted Substation HousingNo.0.6%1.4%14.7%83.3%4655LVLV lueUV OH Conductorkm0.6%1.2%1.6%2.7.%69.5%2656LVUV GabeLV GG Cabekm0.2%9.0%8.0%<22657LVConnectionsOH/UG Streetlight circuitkm1.0%1.1%31.9%66.0%<<2658LVConnectionsOH/UG consumer service connectionsNo.1.1%1.1%31.9%66.0%<<2659AllProtectionProtection relays (electromechanical, solid state and numeric)No.1.1%30.3%1.5.3%54.4%<361364334344	51	HV	Distribution Transformer	Pole Mounted Transformer	No.	2.3%	2.1%	20.2%	75.4%	-	3	5.6%
53HVDistribution TransformerVoltage regulatorsNo.3.4%(8.6%87.9%(454HVDistribution SubstationsGround Mounted Substation HousingNo.0.6%1.4%14.1%83.3%(333(333(333(333(333333333333333333 <th>52</th> <th>HV</th> <th>Distribution Transformer</th> <th>Ground Mounted Transformer</th> <th>No.</th> <th>0.6%</th> <th>1.2%</th> <th>13.8%</th> <th>84.3%</th> <th>-</th> <th>4</th> <th>3.1%</th>	52	HV	Distribution Transformer	Ground Mounted Transformer	No.	0.6%	1.2%	13.8%	84.3%	-	4	3.1%
54HVDistribution SubstationsGround Mounted Substation HousingNo.0.6%1.4%14.4%83.3%03.455LVLV LineLV OH Conductorkm1.2%1.6%27.7%69.5%02.2056LVLV CableLV Gablekm0.2%1.0%80.8%02.200 <td< th=""><th>53</th><th>HV</th><th>Distribution Transformer</th><th>Voltage regulators</th><th>No.</th><th>3.4%</th><th>-</th><th>8.6%</th><th>87.9%</th><th>-</th><th>4</th><th>2.6%</th></td<>	53	HV	Distribution Transformer	Voltage regulators	No.	3.4%	-	8.6%	87.9%	-	4	2.6%
55LVLV LineLV OH Conductorkm1.2%1.6%27.7%69.5%C256LVLV CableLV Gablekm1.2%0.2%19.0%80.8%C257LVLV StreetlightingLV OH/UG Streetlight circuitkm1.0%1.1%31.9%66.0%C258LVConnectionsOH/UG consumer service connectionsNo.1.1%31.9%66.0%47.6%1259AllProtectionProtection relays (electromechanical, solid state and numeric)No.30.3%15.3%54.4%C33.9%60AllSCADA and communicationsSCADA and communications equipment operating as a single systemLotC20.5%15.1%58.5%C34.4%61AllLoad ControlCentralised plantLotLot20.2%5.6%72.2%C4.4%63AllLoad ControlRelaysRelaysNo.2.1%39.9%4.0%54.3%C34.4%64AllLoad ControlCentralised plantLotNo.2.1%39.7%4.0%54.3%C4.4%64AllLoad ControlRelaysRelaysNo.2.1%39.7%4.0%54.3%C4.4%65AllLoad ControlCentralised plantNo.2.1%39.7%4.0%54.3%C4.4%64AllLoad ControlRelaysRelaysNo. </th <th>54</th> <th>HV</th> <th>Distribution Substations</th> <th>Ground Mounted Substation Housing</th> <th>No.</th> <th>0.6%</th> <th>1.4%</th> <th>14.7%</th> <th>83.3%</th> <th>-</th> <th>3</th> <th>3.7%</th>	54	HV	Distribution Substations	Ground Mounted Substation Housing	No.	0.6%	1.4%	14.7%	83.3%	-	3	3.7%
56LVLV CableLV GableLV G Gablekm0.2%19.0%80.8%0257LVLV StreetlightingLV OH/UG Streetlight circuitkm1.0%1.1%31.9%66.0%0258LVConnectionsOH/UG consumer service connectionsNo.1.9%11.5%39.0%47.6%1159AllProtectionProtection relays (electromechanical, solid state and numeric)No.30.3%15.3%54.4%03360AllSCADA and communicationsSCADA and communications equipment operating as a single systemLot26.5%15.1%58.5%03444	55	LV	LV Line	LV OH Conductor	km	1.2%	1.6%	27.7%	69.5%	-	2	3.2%
57LVLV StreetlightingLV OH/UG Streetlight circuitkm1.0%1.1%31.9%66.0%C258LVConnectionsNo.1.1%31.9%66.0%C259AllProtectionProtection relays (electromechanical, solid state and numeric)No.30.3%15.3%54.4%C33.9%60AllSCADA and communicationsSCADA and communications equipment operating as a single systemLotC26.5%15.1%58.5%CAll66.0%CAll66.0%CAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAll66.0%AllAllAll66.0%AllAll66.0%AllAllAll66.0%AllAllAllAll66.0%All <th>56</th> <th>LV</th> <th>LV Cable</th> <th>LV UG Cable</th> <th>km</th> <th>-</th> <th>0.2%</th> <th>19.0%</th> <th>80.8%</th> <th>-</th> <th>2</th> <th>1.1%</th>	56	LV	LV Cable	LV UG Cable	km	-	0.2%	19.0%	80.8%	-	2	1.1%
58LVConnectionsOH/UG consumer service connectionsNo.1.9%11.5%39.0%47.6%159AllProtectionProtection relays (electromechanical, solid state and numeric)No.30.3%15.3%54.4%36.4%36.4%60AllSCADA and communicationsSCADA and communications equipment operating as a single systemLot26.5%15.1%58.5%36.4%36.4%61AllCapacitor BanksCapacitors including controlsNo.36.4%36.4%36.4%36.4%62AllLod ControlCentralised plantLot36.4%37.2%36.4%36.4%63AllLod ControlRelaysNo.21.4%39.7%4.0%54.3%36.4%64AllCivilsCable TunnelsNo.21.4%39.7%4.0%54.3%36.4%	57	LV	LV Streetlighting	LV OH/UG Streetlight circuit	km	1.0%	1.1%	31.9%	66.0%	-	2	-
59AllProtectionProtection relays (electromechanical, solid state and numeric)No.030.3%15.3%54.4%0360AllSCADA and communicationsSCADA and communications equipment operating as a single systemLot026.5%15.1%58.5%03361AllCapacitor BanksCapacitors including controlsNo.000004062AllLoad ControlCentralised plantLot022.2%5.6%72.2%000 <th>58</th> <th>LV</th> <th>Connections</th> <th>OH/UG consumer service connections</th> <th>No.</th> <th>-</th> <th>1.9%</th> <th>11.5%</th> <th>39.0%</th> <th>47.6%</th> <th>1</th> <th>-</th>	58	LV	Connections	OH/UG consumer service connections	No.	-	1.9%	11.5%	39.0%	47.6%	1	-
60AllSCADA and communicationsSCADA and communications equipment operating as a single systemLot-26.5%15.1%58.5%361AllCapacitor BanksCapacitors including controlsNo100.0%462AllLod ControlCentralised plantLotLot-22.2%5.6%72.2%4463AllLod ControlRelaysNo.2.1%39.7%4.0%54.3%164AllCivilsCable TunnelskmN/A-	59	AII	Protection	Protection relays (electromechanical, solid state and numeric)	No.	-	30.3%	15.3%	54.4%	-	3	30.4%
61 All Capacitor Banks Capacitors including controls No. - - 100.0% - 4 62 All Load Control Centralised plant Lot - 22.2% 5.6% 72.2% - 4 63 All Load Control Relays No. 2.1% 39.7% 4.0% 54.3% - 1 64 All Civils Cable Tunnels km - - - N/A -	60	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	-	26.5%	15.1%	58.5%	-	3	14.9%
62 All Load Control Centralised plant Lot - 22.2% 5.6% 72.2% - 4 63 All Load Control Relays No. 2.1% 39.7% 4.0% 54.3% - - 4 64 All Civils Cable Tunnels km - - - N/A -	61	All	Capacitor Banks	Capacitors including controls	No.		-		100.0%	-	4	-
63 All Load Control Relays No. 2.1% 39.7% 4.0% 54.3% - 1 64 All Civils Cable Tunnels km - - - 1	62	All	Load Control	Centralised plant	Lot	-	22.2%	5.6%	72.2%	-	4	16.7%
64 All Civils Cable Tunnels km N/A	63	All	Load Control	Relays	No.	2.1%	39.7%	4.0%	54.3%	-	1	38.7%
	64	All	Civils	Cable Tunnels	km	-	-	-	-	-	N/A	<u> </u>

35 36 37

Schedule 12b: Forecast capacity

								Company Name	Powerco
								AMP Planning Period	1 April 2018 – 31 March 2028
E 12b: REPORT ON FORECAST CA equires a breakdown of current and forecast capac ate to the operation of the network in its normal s	APACITY ity and utilisation for each zone substatic teady state configuration.	on and current distr	ibution transformer ca	apacity. The data provi	ided should be consi	stent with the inform	nation provided in th	e AMP. Information provided in this	
i): System Growth - Zone Substatio	ns	Installed Firm	Security of Supply		Utilisation of Installed Firm	Installed Firm	Utilisation of Installed Firm	Installed Firm Capacity	
Evicting Zong Substations	Current Peak Load	Capacity	Classification	Transfer Capacity	Capacity	Capacity +5 years	Capacity + 5yrs	Constraint +5 years	Evaluation
Coromandel		(IVIVA)	NL1 SW/	(IVIVA)	/8		- /6	(cause)	Single 66kV circuit
Kerenehi	4.0		N N	1.8		65	163%	Transformer	Ungrade removes single cct constraint, exposing Ty can
Matatoki	57		N	1.0		0.5	-	Transformer	Single Tx
Tairua	87	7.5	N	1.0	115%	7.5	120%	Transformer	Subtr. Upgrades. Sub remains just over Tx firm capacity.
Thames T1 & T2	12.5	7.5	N-1	17	115/0	10.2	71%	No constraint within +5 years	66kV upgrade removes binding constraint
Thames T3	13.5		NL1 CM/	1.7	40%	19.2	/1%	No constraint within 15 years	ooky approverentives binding constraint
Whitianga	3.4	6.9	N-1 SVV	5.9	49%	6.9	49%	No constraint within 15 years	Subtrans ungrades. Txs offloaded & protection upgrades
Prese	17.4	-	N-1	1.4	-	10.2	08%	No constraint within +5 years	Subtrans upgrades, its onroaded & protection upgrades
Paeroa	8.4	6.0	N	2.0	140%	10.2	84%	No constraint within +5 years	rransis replaced during period.
waini	18.4	16.0	N-1	-	115%	16.0	119%	No constraint within +5 years	Customer agreed security.
waini Beach	5.9	3.3	N	3.3	180%	3.3	195%	Subtransmission Circuit	Single 33kV circuit
whangamata	10.5	-	N	0.5		2.0	540%	Subtransmission circuit	2nd circuit deferred 0/s 5 yrs by hon-network strategies
Aongatete	8.6	7.2	N	1.2	120%	12.0	82%	No constraint within +5 years	Upgrades on subtrans inc. allocated capacity
Bethlehem	9.8	8.0	N	8.0	122%	8.0	150%	Transformer	New 1 x Transf Sub - needs 2nd 1x soon after 2022
Hamilton St	15.7	22.4	N-1	10.7	70%	22.4	75%	No constraint within +5 years	
Katikati	8.4	5.3	N	5.3	160%	11.0	84%	No constraint within +5 years	2nd circuit & 2nd Tx just before 2022.
Kauri Pt	3.1	2.0	N	2.0	160%	2.0	165%	Subtransmission Circuit	Single Tx and 33kV circuit limit security.
Matua	10.2	7.2	N-1	7.2	142%	7.2	144%	Subtransmission circuit	Circuit & Tx upgrades planned just after 2022
Omokoroa	11.6	13.2	N-1	1.2	88%	13.2	95%	No constraint within +5 years	33kV upgrades pre 2022.
Otumoetai	14.3	13.6	N	-	105%	13.6	118%	Transformer	Minor constraint - managed operationally.
Waihi Rd	22.0	24.1	N-1	12.3	91%	24.1	93%	No constraint within +5 years	
Welcome Bay	23.0	21.4	N-1	4.5	108%	21.4	120%	Transformer	Constraint managed operationally. Possibly offloads.
Matapihi	14.5	24.1	N-1	14.1	60%	24.1	64%	No constraint within +5 years	
Omanu	15.7	24.3	N-1	11.1	64%	24.3	67%	No constraint within +5 years	
Papamoa	20.6	21.3	N-1	9.8	97%	21.4	96%	No constraint within +5 years	Offload to new Subs maintains security.
Te Maunga	8.5	9.1	N	6.9	94%	9.1	102%	No constraint within +5 years	New Substation - will require 2nd Tx in future.
Triton	21.6	21.3	N-1	11.2	101%	22.9	99%	No constraint within +5 years	Small constraint operationally managed or routine upgrad
Atuaroa Ave	8.1		N	6.3	-	-		Subtransmission Circuit	Single Tx & part single circuit. Possible upgr post 2022
Paengaroa	4.1	2.3	N	2.3	178%	2.3	178%	Subtransmission Circuit	New N security Sub - longer term plans to secure
Pongakawa	7.4	2.1	N-1	2.1	352%	2.1	362%	Subtransmission Circuit	Single 33kV circuit
Te Puke	20.5	22.9	N-1	11.1	90%	22.9	93%	No constraint within +5 years	[
Farmer Rd	6.0	-	N-1	6.4	-	-	-	Subtransmission circuit	Switched backfeed o/s nominal security requirements
Inghams	3.8	3.6	N	3.6	105%	3.6	105%	No constraint within +5 years	Customer agreed security
Mikkelsen Rd	15.2	19.2	N-1	4.0	79%	19.2	81%	No constraint within +5 years	
Morrinsville	10.8	-	N	1.3	-	6.8	163%	Transformer	2nd 33kV circuit completed ~2022?
Piako	15.2	15.2	N-1	1.2	100%	15.2	106%	Transformer	Minor constraint - managed operationally.
Tahuna	5.8	0.8	N-1	0.8	721%	0.8	733%	Subtransmission Circuit	Single 33kV circuit. Investigate 11kV backfeed upgrades
Tatua	45	1.2	N	1.2	390%	1.2	390%	No constraint within +5 years	Customer agreed security
Waitoa	12.7	19.9	N-1	1.2	68%	1.2	68%	No constraint within +5 years	
Walton	50	10.0	N	0.6	08/6	10.0	-	Transformer	Single Transformer, Risk managed operationally
Browne St	5.5	10.5	N-1	0.0	0.5%	10.5	102%	Transformer	Very minor, low risk. Managed operationally
Lake Rd	10.0	10.0	N N	5.0	95%	10.0	102%	No constraint within 15 years	2nd transformer in 2019
Lake nu	6.0	-	N	0.9	-	14.0	44%	IND CONSTRAINT WITHIN +5 YEARS	210 0 015101100110011112019

									FIN	ANCIAL INFORMATION DISCLOSURE 2018
51	Putaruru	11.7	_	N	0.5	-	17.0	71%	No constraint within +5 years	New GXP, Subtrans. & transf. upgrades by ~2022.
52	Tower Rd	9.9	-	N	3.5	-	17.0	64%	No constraint within +5 years	GXP and Subtrans upgraded, & 2nd Tx added
53	Waharoa	8.0	-	N-1	-	-	_	-	Subtransmission Circuit	Subtrans upgrades complete ~2023
54	Baird Rd	10.4	11.3	N-1	4.0	92%	11.3	95%	No constraint within +5 years	Subtransmission upgraded ~2018
55	Midway / Lakeside	4.4	-	N	-	-	-	-	No constraint within +5 years	Customer agreed security
56	Maraetai Rd	11.2	15.0	N-1	4.7	75%	15.0	76%	No constraint within +5 years	Subtransmission upgraded ~2018
57	Bell Block	18.8	22.9	N-1	12.1	82%	22.9	93%	No constraint within +5 years	0
58	Brooklands	15.4	27.0	N-1	9.5	57%	27.0	60%	No constraint within +5 years	0
59	Cardiff	1.6	4.1	N-1 SW	4.1	40%	4.1	41%	No constraint within +5 years	0
60	City	19.2	20.1	N-1	10.7	95%	20.1	99%	No constraint within +5 years	0
61	Cloton Rd	10.8	13.0	N-1	1.0	83%	13.0	86%	No constraint within +5 years	0
62	 Douglas	1.7	1.7	N	1.7	101%	1.7	101%	Subtransmission circuit	Single circuit. Very low risk. Most load can be backfed.
63	Eltham	9.9	8.6	N-1	2.6	115%	15.3	65%	No constraint within +5 years	Transformer upgrade ~2021
64	Inglewood	5.4	6.2	N-1	1.8	88%	6.2	93%	No constraint within +5 years	0
65	Kaponga	3.7	3.0	N-1	1.7	123%	3.0	124%	Transformer	Low risk of failure. Operationally managed.
66	Katere	13.8	24.3	N-1	10.0	57%	24.3	66%	No constraint within +5 years	0
67	McKee	1.4	1.6	N-1 SW	1.6	90%	1.6	99%	No constraint within +5 years	0
68	Motukawa	1.2	0.6	N	0.6	205%	0.6	211%	Transformer	Single transformer
69	Moturoa	22.7	21.4	N-1	11.2	106%	30.0	81%	No constraint within +5 years	33kV circuits and transformers replaced ~2020
70	Oakura	3.5	4.2	N-1 SW	4.2	84%	4.2	91%	No constraint within +5 years	Single cct & Tx. 11kV backfed adequate for ~10 years
71	Pohokura	5.2	9.2	N-1	-	57%	9.2	57%	No constraint within +5 years	0
72	Waihapa	1.2	1.4	N-1	1.4	87%	1.4	87%	No constraint within +5 years	0
73	Waitara East	6.3	10.1	N-1	1.1	63%	10.1	67%	No constraint within +5 years	0
74	Waitara West	6.9	6.4	N	-	108%	6.4	109%	Transformer	Risk of failure is low. Managed operationally.
75	Cambria	15.7	17.0	N-1	5.2	92%	17.0	95%	No constraint within +5 years	0
76	Kapuni	6.8	7.0	N-1	3.4	98%	7.0	96%	No constraint within +5 years	0
77	Livingstone	3.2	3.1	N-1	0.7	106%	5.0	65%	No constraint within +5 years	Transformers scheduled for replacement (higher cap)
78	Manaia	7.8	5.0	N	5.0	157%	5.0	158%	Transformer	33kV Tee resolved ~2022. Single Tx bank (after renewal)
79	Ngariki	3.7	3.8	N-1 SW	3.8	97%	3.8	99%	No constraint within +5 years	0
80	Pungarehu	4.5	4.5	N-1	1.9	100%	4.5	102%	Transformer	Low risk - operationally managed (e.g. backfeeds)
81	Tasman	7.1	6.4	N-1	2.8	111%	6.4	112%	Transformer	Low risk - operationally managed (e.g. backfeeds)
82	Whareroa	4.5	3.0	N	3.0	151%	5.0	93%	No constraint within +5 years	Sub to be relocated (Mokoia Sub) with higher capacity
83	Beach Rd	11.0	16.2	N-1	-	68%	16.2	70%	No constraint within +5 years	Subtrans upgrades complete pre 2022.
84	Blink Bonnie	4.4	2.3	N	2.3	193%	2.3	198%	Transformer	Single transformer. Low risk of failure
85	Castlecliff	11.5	8.7	N-1	5.2	133%	12.8	93%	No constraint within +5 years	33kV upgrades & Tx incomers within 5 years.
86	Hatricks Wharf	11.5	-	N	6.0	-	10.0	115%	Transformer	Single transf, but 11kV bus tie (Taupo Quay) mitigates risk
87	Kai lwi	2.5	1.0	N	1.0	250%	1.0	258%	Subtransmission Circuit	Single 33kV cct & single Tx. Also N security GXP.
88	Peat St	19.5	-	N-1	5.6	-	-	-	Transpower	2nd 33kV circuit ~2021, but N secure GXP limits security
89	Roberts Ave	8.4	5.7	N	5.7	148%	5.7	150%	Transpower	2nd 33kV circuit ~2021, but N secure GXP limits security
90	Taupo Quay	11.5	-	Ν	9.8	-	10.0	115%	Transformer	2nd 33kV circuit built. Single Tx with bus tie limits security.
91	Wanganui East	8.6	3.1	Ν	3.1	280%	3.1	282%	Subtransmission Circuit	Single 33kV circuit & single transformer.
92	Taihape	5.1	0.7	N	0.7	729%	0.7	726%	Transformer	Single transformer
93	Waiouru	3.0	0.6	N	0.6	541%	0.6	534%	Subtransmission circuit	Single 33kV circuit & single transformer. N secure GXP
94	Arahina	8.9	2.9	N	2.9	308%	2.9	312%	Subtransmission Circuit	Single 33kV circuit & single transformer. N secure GXP
95	Bulls	5.7	4.0	N	4.0	143%	4.0	<u>1</u> 45%	Subtransmission Circuit	Single transformer. Low risk of failure.
96	Pukepapa	9.0	3.4	N	3.4	266%	3.4	270%	Transformer	Single transformer. Limited backfeed
97	Rata	2.3	0.7	N	0.7	334%	0.7	333%	Subtransmission circuit	Single 33kV circuit & single transformer
98	Feilding	22.2	23.7	N-1	1.9	94%	23.7	99%	No constraint within +5 years	Possible 33kV & substation upgrades in longer term plan.
99	Kairanga	19.7	19.1	N-1	7.4	103%	23.7	86%	Subtransmission circuit	Transformer upgrade planned ~2023
100	Keith St	19.2	21.9	N-1	0.6	88%	21.9	90%	No constraint within +5 years	Upgrades offload 33kV circuits feeding Main and Keith St

	FINANCIAL INFORMATION DISCLOSURE 2018									
101	Kelvin Grove	19.4	17.2	N-1	4.0	113%	23.7	92%	No constraint within +5 years	Transformers upgraded in ~2021.
102	Kimbolton	3.1	0.6	N	0.6	515%	0.6	521%	Subtransmission Circuit	Single 33kV circuit & single transformer. Remote Sub.
103	Main St	29.5	17.0	N-1	11.6	174%	24.8	90%	No constraint within +5 years	New Sub & 33kV cables address ex. high risk constraints.
104	Milson	19.2	18.1	N-1	5.0	106%	19.2	109%	Transformer	Possible upgrade just beyond 5 year period.
105	Pascal St	23.5	17.0	N-1	11.2	138%	24.6	81%	No constraint within +5 years	New Sub & 33kV cables address ex. high risk constraints.
106	Sanson	9.0	-	N-1	3.9	-	11.3	84%	No constraint within +5 years	33kV backfeed secures load. Tx upgrades post 2022
107	Turitea	16.2	-	N-1	2.1			-	Subtransmission Circuit	Single 33kV circuit - switched backfeed. Upgr post 2022.
108	Alfredton	0.5	1.4	N	0.2	33%	1.4	33%	No constraint within +5 years	Single Transf. but adequate backfeed.
109	Mangamutu	12.8	12.8	N-1	0.5	100%	12.8	100%	No constraint within +5 years	Major customer largely determines security requirements.
110	Parkville	2.0	-	N	-	<u> </u>	-	-	Transformer	Single transformer
111	Pongaroa	0.7	2.9	N	0.3	26%	2.9	25%	No constraint within +5 years	Single transformer, but adequate backfeed
112	Akura	13.3	9.0	N-1	5.3	148%	15.0	91%	No constraint within +5 years	Txs replaced & section of 33kV circuit upgraded, pre 2022
113	Awatoitoi	0.7	3.0	Ν	0.5	24%	3.0	24%	No constraint within +5 years	0
114	Chapel	15.4	13.8	N-1	7.3	112%	22.9	69%	No constraint within +5 years	Upgrade short section of 33kV cable pre 2022.
115	Clareville	11.7	10.9	N-1	2.8	107%	10.9	116%	Transformer	Possible upgrade during longer term renewal of Txs.
116	Featherston	5.0	1.5	N	1.5	344%	1.5	361%	Transformer	Single transformer. 2nd bank proposed in longer term
117	Gladstone	0.9	1.4	N	0.3	66%	1.4	67%	No constraint within +5 years	0
118	Hau Nui	1.0	-	Ν	-	-	-	-	No constraint within +5 years	Generation site. Not economic to provide higher security
119	Kempton	5.1	2.1	N	2.1	247%	2.1	263%	Subtransmission Circuit	1 x 33kV circuit & 1 x transformer; Upgrades post 2022.
120	Martinborough	5.1	1.5	N	1.5	351%	1.5	377%	Transformer	Single transformer. 2nd Tx planned post 2022
121	Norfolk	7.2	7.0	N-1	1.7	103%	7.0	113%	Transformer	Risk is very low. Managed operationally.
122	Te Ore Ore	7.5	6.7	N	6.7	112%	6.7	115%	Transformer	Single transformer
123	Tinui	0.5	1.3	N-1 SW	0.6	39%	1.3	40%	No constraint within +5 years	0
124	Tuhitarata	3.2	0.2	N	0.2	1,578%	1.0	329%	Subtransmission circuit	Single 33kV circuit & single transformer
126	¹ Extend forecast capacity table as necessary to disclose all capacity by	v each zone substation	n							

Schedule 12c: Forecast network demand

: REPORT ON FORECAST NETWORK DEMAN a forecast of new connections (by consumer type), peak demand and he AMP as well as the assumptions used in developing the expenditu nsumer Connections ber of ICPs connected in year by consumer type	D energy volumes for the disclo re forecasts in Schedule 11a <i>Current Year CY</i>	AMP a	Planning Period	1 April 2 ne forecasts should b lisation forecasts in	2018 – 31 March e consistent with the Schedule 12b.	2028 supporting
: REPORT ON FORECAST NETWORK DEMAN a forecast of new connections (by consumer type), peak demand and he AMP as well as the assumptions used in developing the expenditu nsumer Connections ber of ICPs connected in year by consumer type	D energy volumes for the disclo re forecasts in Schedule 11a <i>Current Year CY</i>	osure year and a 5 yea and Schedule 11b and	ar planning period. Th I the capacity and uti	ne forecasts should b lisation forecasts in	e consistent with the Schedule 12b.	supporting
a forecast of new connections (by consumer type), peak demand and he AMP as well as the assumptions used in developing the expenditu nsumer Connections ber of ICPs connected in year by consumer type for year	energy volumes for the disclo re forecasts in Schedule 11a <i>Current Year CY</i>	osure year and a 5 yea and Schedule 11b and	ar planning period. Th I the capacity and uti	ne forecasts should b lisation forecasts in	e consistent with the Schedule 12b.	supporting
he AMP as well as the assumptions used in developing the expenditu nsumer Connections ber of ICPs connected in year by consumer type for year	re forecasts in Schedule 11a Current Year CY	and Schedule 11b and	I the capacity and uti	lisation forecasts in	Schedule 12b.	
nsumer Connections ber of ICPs connected in year by consumer type for yea	Current Year CY		Number of co			
nsumer Connections ber of ICPs connected in year by consumer type for year	Current Year CY		Number of co			
nsumer Connections ber of ICPs connected in year by consumer type for year	Current Year CY		Number of co			
ber of ICPs connected in year by consumer type	Current Year CY		Number of co			
for year	Current Year CY			nnections		
for year		CY+1	CY+2	CY+3	CY+4	CY+5
	r ended 31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
onsumer types defined by EDB*	FY18	FY19	FY20	FY21	FY22	FY23
nall	5,235	4,601	4,601	4,601	4,601	4,601
ommercial	44	42	42	42	42	42
dustrial	9	14	14	14	14	1
ections total	5,288	4,657	4,657	4,657	4,657	4,65
nclude additional rows if needed						
uted generation						
umber of connections	706	706	706	706	706	70
stalled connection capacity of distributed generation (MVA)	3	3	3	3	3	
stom Domand						
	Current Vear CV	CV+1	CV+2	CV+2	CV+4	CV+5
	r ondod 31 Mar 18	31 Mar 19	31 Mar 20	21 Mar 21	31 Mar 22	31 Mar 23
um coincident system demand (MW) for year	Tenueu 31 Mai 10	740	746	753	759	76
ium coincident system demand (MW) for year	722	740	167	169	171	17
tum coincident system demand (MW) for yea. (P demand stributed generation output at HV and above	733	165	ib/	105		17
Num coincident system demand (MW) for yea (P demand stributed generation output at HV and above 2c Maximum coincident system demand [MW]	733 164 897	165 905	913	922	930	93
tum coincident system demand (MW) for yea (P demand stributed generation output at HV and above 2c Maximum coincident system demand [MW] t transfers to (from) other EDBs at HV and above	733 164 897	165 905	913	922	930	93
un		lemand 733	lemand 733 740	Jemand733740746buted generation output at HV and above164165167	Idemand733740746753buted generation output at HV and above164165167169	Jemand 733 740 746 753 759 buted generation output at HV and above 164 165 167 169 171

30	Electricity volumes carried (GWh)						
31	Electricity supplied from GXPs	4,237	4,284	4,331	4,377	4,424	4,471
32	less Electricity exports to GXPs	42	42	42	42	42	42
33	plus Electricity supplied from distributed generation	903	911	920	928	936	945
34	less Net electricity supplied to (from) other EDBs	-	-	-	-	-	-
35	Electricity entering system for supply to ICPs	5,098	5,153	5,208	5,263	5,318	5,373
36	less Total energy delivered to ICPs	4,793	4,844	4,896	4,948	4,999	5,051
37	Losses	306	309	313	316	319	322
38							
39	Load factor	65%	65%	65%	65%	65%	65%
40	Loss ratio	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%

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Schedule 12d: Forecast interruptions and durations

SC	HEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION	ould be consistent wi	AMF Network / Su	Company Name Planning Period b-network Name	1 April Pc	Powerco 2018 – 31 March werco - combine	d
unpl	lanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.		an the supporting m				
sch rej 8 9	f for year ended	Current Year CY 31 Mar 18	<i>CY+1</i> 31 Mar 19	CY+2 31 Mar 20	CY+3 31 Mar 21	<i>CY+4</i> 31 Mar 22	CY+5 31 Mar 23
10 11	SAIDI Class B (planned interruptions on the network)	68.4	80.0	84.9	92.3	98.2	99.3
12	Class C (unplanned interruptions on the network)	346.3	210.8	205.5	201.1	199.8	197.4
13	SAIFI						
14	Class B (planned interruptions on the network)	0.32	0.34	0.37	0.39	0.41	0.41
15	Class C (unplanned interruptions on the network)	2.16	2.32	2.29	2.28	2.28	2.27

Company Name	Powerco
AMP Planning Period	1 April 2018 – 31 March 2028
Network / Sub-network Name	Powerco - Eastern Region

SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION

sch rof

This schedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumed impact of planned and unplanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.

8 9 10	fo SAIDI	or year ended	Current Year CY 31 Mar 18	CY+1 31 Mar 19	CY+2 31 Mar 20	CY+3 31 Mar 21	CY+4 31 Mar 22	CY+5 31 Mar 23
11	Class B (planned interruptions on the network)		68.4	80.0	84.9	92.3	98.2	99.3
12	Class C (unplanned interruptions on the network)		346.3	210.8	205.5	201.1	199.8	197.4
13	SAIFI							
14	Class B (planned interruptions on the network)		0.32	0.34	0.37	0.39	0.41	0.41
15	Class C (unplanned interruptions on the network)		2.16	2.32	2.29	2.28	2.28	2.27

					FINANCIAL	INFORMATION D	ISCLOSURE 201		
	Company Name					Powerco			
		Network / Sub-network Name			Powerco - Western Region				
SCH This s	SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION								
unpla	anned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.		in the supporting find		e Aivir as well as the	assumed impact of p			
sch ref 8		Current Year CY	CY+1	СҮ+2	СҮ+3	СҮ+4	CY+5		
9 10	for year en SAIDI	ded 31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23		
11	Class B (planned interruptions on the network)	68.4	80.0	84.9	92.3	98.2	99.3		
12	Class C (unplanned interruptions on the network)	346.3	210.8	205.5	201.1	199.8	197.4		
13	SAIFI								
14	Class B (planned interruptions on the network)	0.32	0.34	0.37	0.39	0.41	0.41		
15	Class C (unplanned interruptions on the network)	2.16	2.32	2.29	2.28	2.28	2.27		

Schedule 14a: Mandatory notes to accompany the schedules

This Schedule requires EDBs to provide explanatory notes to reports prepared in accordance with clause 2.6.6.

This Schedule is mandatory—EDBs must provide the explanatory comment specified below, in accordance with clause 2.7.2. This information is not part of the audited disclosure information, and so is not subject to the assurance requirements specified in section 2.8.

Commentary on difference between nominal and constant price capital expenditure forecasts (Schedule 11a)

In the box below, comment on the difference between nominal and constant price capital expenditure for the current disclosure year and 10 year planning period, as disclosed in Schedule 11a.

Box 1: Commentary on difference between nominal and constant price capital expenditure forecasts

We have used the same cost escalation approach as with our previous two AMPs. We have developed cost escalators using:

- Independent forecasts of input price indices that reflect the various costs that we face, including material, labour and overhead components.
- CPI forecasts consistent with the Commission's input methodologies (used in limited circumstances).
- Weighting factors for cost categories, such as transformers, that are made up of a range of inputs

We have used the above inputs to develop tailored cost escalators for our cost categories. These are then applied to our expenditure forecasts to convert between constant price and nominal forecasts.

Commentary on difference between nominal and constant price operational expenditure forecasts (Schedule 11b)

In the box below, comment on the difference between nominal and constant price operational expenditure for the current disclosure year and 10 year planning period, as disclosed in Schedule 11b.

Box 2: Commentary on difference between nominal and constant price operational expenditure forecasts

We have used the same cost escalation approach as with our previous two AMPs. We have developed cost escalators using:

- Independent forecasts of input price indices that reflect the various costs that we face, including material, labour and overhead components.
- CPI forecasts consistent with the Commission's input methodologies (used in limited circumstances).
- Weighting factors for cost categories, such as transformers, that are made up of a range of inputs

We have used the above inputs to develop tailored cost escalators for our cost categories. These are then applied to our expenditure forecasts to convert between constant price and nominal forecasts.

Directors' Certificate

CERTIFICATE FOR YEAR-BEGINNING DISCLOSURES

Pursuant to clause 2.9.2 of section 2.9

We, <u>Some locking</u> and <u>Power callos</u>, being directors Powerco Limited certify that, having made all reasonable enquiry, to the best of our knowledge: of

- a) The following attached information of Powerco Limited prepared for the purposes of clauses 2.6.1, 2.6.6, and 2.7.2 of the Electricity Information Disclosure Determination 2012 in all material respects complies with that determination.
- b) The prospective financial or non-financial information included in the attached information has been measured on a basis consistent with regulatory requirements or recognised industry standards.
- c) The forecasts in Schedules 11a, 11b, 12a, 12b, 12c and 12d are based on objective and reasonable assumptions which with align with Powerco's corporate vision and strategy and are documented in retained records.

Director

N	UL/	

Director

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