

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 Name **Powerco**
 AMP Planning Period **1 April 2018 – 31 March 2028**

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast 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 nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes).
 This information is not part of audited disclosure information.

sch ref

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
	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
11a(i): Expenditure on Assets Forecast	\$000 (in nominal dollars)										
Consumer connection	35,107	33,049	33,724	33,769	30,018	32,796	29,756	36,314	34,681	32,334	33,271
System growth	44,684	64,669	55,784	60,980	64,616	63,531	63,333	65,424	72,303	67,489	70,632
Asset replacement and renewal	70,096	75,997	84,316	92,989	97,015	94,075	96,905	94,752	96,657	99,784	104,976
Asset relocations	2,243	2,314	2,433	2,484	2,513	2,542	2,593	2,654	2,717	2,788	2,688
Reliability, safety and environment:											
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
Legislative and regulatory	-	-	2,438	2,492	-	-	-	-	-	-	-
Other reliability, safety and environment	2,302	3,045	3,542	3,397	3,766	4,228	1,485	1,204	1,363	760	1,283
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
Expenditure on network assets	156,821	181,804	186,532	200,322	201,128	200,299	198,023	203,542	210,408	205,270	215,021
Expenditure on non-network assets	17,776	25,867	10,372	16,161	10,211	9,870	5,178	3,949	6,468	6,115	5,744
Expenditure on assets	174,597	207,671	196,904	216,483	211,339	210,169	203,201	207,491	216,876	211,385	220,765
plus Cost of financing	2,078	3,780	2,153	2,663	3,897	3,880	431	489	-	-	-
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
plus Value of vested assets	-	-	-	-	-	-	-	-	-	-	-
Capital expenditure forecast	152,975	188,026	175,907	195,940	194,505	191,620	183,089	183,311	193,272	189,308	198,042
Assets commissioned	116,022	220,284	166,854	175,577	211,735	216,265	176,760	188,701	188,615	190,418	195,596
	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
	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
	\$000 (in 2018 constant prices)										
Consumer connection	35,107	31,831	31,541	30,913	26,790	28,717	25,492	30,430	28,425	25,978	26,158
System growth	44,684	62,166	51,606	54,662	56,473	54,279	53,034	53,955	57,886	52,911	54,085
Asset replacement and renewal	70,096	72,471	78,081	84,233	85,444	81,195	81,646	77,890	77,500	78,353	80,440
Asset relocations	2,243	2,251	2,310	2,308	2,282	2,261	2,256	2,258	2,260	2,271	2,143
Reliability, safety and environment:											
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
Legislative and regulatory	-	-	2,313	2,312	-	-	-	-	-	-	-
Other reliability, safety and environment	2,302	2,788	3,089	2,885	3,103	3,449	1,197	968	1,063	569	956
Total 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
Expenditure on network assets	156,821	174,174	173,047	181,258	177,021	172,697	167,077	168,228	169,376	161,806	165,511
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
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

45	Subcomponents of expenditure on assets (where known)											
46	Energy efficiency and demand side management, reduction of energy losses											
47	Overhead to underground conversion											
48	Research and development											
49												
50												

51		<i>Current Year CY</i>	<i>CY+1</i>	<i>CY+2</i>	<i>CY+3</i>	<i>CY+4</i>	<i>CY+5</i>	<i>CY+6</i>	<i>CY+7</i>	<i>CY+8</i>	<i>CY+9</i>	<i>CY+10</i>
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

67		<i>Current Year CY</i>	<i>CY+1</i>	<i>CY+2</i>	<i>CY+3</i>	<i>CY+4</i>	<i>CY+5</i>
68	for year ended	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
69	11a(ii): Consumer Connection	\$000 (in constant prices)					
70	<i>Consumer types defined by EDB*</i>						
71	All Consumers	35,107	31,831	31,541	30,913	26,790	28,717
72	[EDB consumer type]						
73	[EDB consumer type]						
74	[EDB consumer type]						
75	<i>*include additional rows if needed</i>						
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	12,617	10,398	10,839	10,605	9,177	9,924

79	11a(iii): System Growth						
80	Subtransmission	12,265	20,651	19,740	18,762	24,957	21,479
81	Zone substations	9,653	17,943	5,864	18,621	14,519	16,925
82	Distribution and LV lines	3,784	3,482	5,198	3,322	3,136	3,212
83	Distribution and LV cables	4,687	4,216	4,723	2,978	2,983	3,429
84	Distribution substations and transformers	666	611	3,252	2,532	1,211	559
85	Distribution switchgear	3,801	3,487	5,196	3,318	3,141	3,353
86	Other network assets	9,828	11,776	7,633	5,129	6,526	5,322
87	System growth expenditure	44,684	62,166	51,606	54,662	56,473	54,279
88	less Capital contributions funding system growth	-	-	-	-	-	-
89	System growth less capital contributions	44,684	62,166	51,606	54,662	56,473	54,279

	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(iv): Asset Replacement and Renewal	\$000 (in constant prices)					
Subtransmission	4,742	4,505	6,439	4,775	3,868	2,612
Zone substations	12,982	15,057	12,495	12,879	12,488	10,796
Distribution and LV lines	26,956	29,825	35,983	42,006	45,543	47,042
Distribution and LV cables	6,987	6,634	6,767	6,751	6,285	5,687
Distribution substations and transformers	6,299	6,969	6,965	7,077	6,833	6,719
Distribution switchgear	9,396	8,775	8,616	8,360	8,297	6,950
Other network assets	2,734	706	816	2,385	2,130	1,389
Asset replacement and renewal expenditure	70,096	72,471	78,081	84,233	85,444	81,195
less Capital contributions funding asset replacement and renewal	6	-	-	-	-	-
Asset replacement and renewal less capital contributions	70,090	72,471	78,081	84,233	85,444	81,195

	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(v):Asset Relocations	\$000 (in constant prices)					
<i>Project or programme*</i>						
[Description of material project or programme]						
[Description of material project or programme]						
[Description of material project or programme]						
[Description of material project or programme]						
[Description of material project or programme]						
<i>*Include additional rows if needed</i>						
All other project or programmes - asset relocations	2,243	2,251	2,310	2,308	2,282	2,261
Asset relocations expenditure	2,243	2,251	2,310	2,308	2,282	2,261
less Capital contributions funding asset relocations	1,204	1,515	1,514	1,514	1,496	1,477
Asset relocations less capital contributions	1,039	736	796	794	786	784

	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(vi):Quality of Supply	\$000 (in constant prices)					
<i>Project or programme*</i>						
[Description of material project or programme]						
[Description of material project or programme]						
[Description of material project or programme]						
[Description of material project or programme]						
[Description of material project or programme]						
<i>*Include additional rows if needed</i>						
All other projects or programmes - quality of supply	2,389	2,667	4,107	3,945	2,929	2,796
Quality of supply expenditure	2,389	2,667	4,107	3,945	2,929	2,796
less Capital contributions funding quality of supply	-	-	-	-	-	-
Quality of supply less capital contributions	2,389	2,667	4,107	3,945	2,929	2,796

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	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 prices)					
Secondary systems (relay replacement for extended reserves)	-	-	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						
Legislative and regulatory expenditure	-	-	2,313	2,312	-	-
less Capital contributions funding legislative and regulatory	-	-	-	-	-	-
Legislative and regulatory less capital contributions	-	-	2,313	2,312	-	-

	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(viii): Other Reliability, Safety and Environment

Project or programme*	\$000 (in constant prices)					
Zone substations	1,513	1,165	1,476	1,275	1,570	1,962
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	-	-	-	-	-	-
Other reliability, safety and environment expenditure	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	2,788	3,089	2,885	3,103	3,449

	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(ix): Non-Network Assets

Routine expenditure

Project or programme*	\$000 (in constant prices)					
ICT capex	13,217	19,454	8,658	13,539	7,023	6,784
Facilities capex	239	699	245	713	121	499
(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 - routine expenditure						
Routine expenditure	13,456	20,153	8,903	14,252	7,144	7,283

Atypical expenditure

Project or programme*	\$000 (in constant prices)					
Facilities capex	4,320	5,246	1,094	1,034	2,288	1,620
(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 - atypical expenditure						
Atypical expenditure	4,320	5,246	1,094	1,034	2,288	1,620

Expenditure on non-network assets

	17,776	25,399	9,997	15,286	9,432	8,903
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Schedule 11b: Forecast Operational Expenditure

Company Name: **Powerco**
 AMP Planning Period: **1 April 2018 – 31 March 2028**

SCHEDULE 11b: REPORT ON FORECAST OPERATIONAL EXPENDITURE

This schedule requires a breakdown of forecast operational expenditure for the disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. EDBs must provide explanatory comment on the difference between constant price and nominal dollar operational expenditure forecasts in Schedule 14a (Mandatory Explanatory Notes). This information is not part of audited disclosure information.

sch ref		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
	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	Operational Expenditure Forecast	\$000 (in nominal dollars)										
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
19		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
20	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
21		\$000 (in 2018 constant 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 energy losses											
33	Direct billing*											
34	Research and Development											
35	Insurance											
36												
37	* Direct billing expenditure by suppliers that direct bill the majority of their consumers											
38		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
39	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
40		\$000										
41	Difference between nominal and real forecasts											
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

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.

sch ref	Asset condition at start of planning period (percentage of units by grade)										
	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
7											
8											
9											
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	-
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	-
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	-	-	17.3%	82.7%	-	4	-
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	-	-	-	-	N/A	-	-
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	-	-	8.7%	91.3%	-	4	-
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	-	-	-	-	N/A	-	-
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	-	-	-	-	N/A	-	-
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	-	-	-	-	N/A	-	-
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	-	-	-	-	N/A	-	-
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	-	-	-	-	N/A	-	-
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	6.9%	44.1%	7.8%	41.2%	-	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	-
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	-
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	-
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	-	2.9%	37.5%	59.7%	-	4	22.0%
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	-	-	12.0%	88.0%	-	4	4.0%

		Asset condition at start of planning period (percentage of units by grade)									
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	
35											
36											
37											
38											
39	HV	Zone Substation Transformer	Zone Substation Transformers	No.	4.2%	1.6%	50.8%	43.5%	-	4	9.4%
40	HV	Distribution Line	Distribution OH Open Wire Conductor	km	16.5%	1.1%	18.8%	63.6%	-	3	7.5%
41	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	-	-	-	-	N/A	-	-
42	HV	Distribution Line	SWER conductor	km	-	-	22.7%	77.3%	-	3	2.8%
43	HV	Distribution Cable	Distribution UG XLPE or PVC	km	1.8%	0.0%	11.3%	86.8%	-	3	2.1%
44	HV	Distribution Cable	Distribution UG PILC	km	4.6%	-	12.0%	83.5%	-	3	2.7%
45	HV	Distribution Cable	Distribution Submarine Cable	km	-	-	-	100.0%	-	3	-
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%
47	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	4.5%	41.0%	8.0%	46.5%	-	4	50.3%
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%
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%
50	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	14.8%	1.4%	16.9%	66.9%	-	4	15.3%
51	HV	Distribution Transformer	Pole Mounted Transformer	No.	2.3%	2.1%	20.2%	75.4%	-	3	5.6%
52	HV	Distribution Transformer	Ground Mounted Transformer	No.	0.6%	1.2%	13.8%	84.3%	-	4	3.1%
53	HV	Distribution Transformer	Voltage regulators	No.	3.4%	-	8.6%	87.9%	-	4	2.6%
54	HV	Distribution Substations	Ground Mounted Substation Housing	No.	0.6%	1.4%	14.7%	83.3%	-	3	3.7%
55	LV	LV Line	LV OH Conductor	km	1.2%	1.6%	27.7%	69.5%	-	2	3.2%
56	LV	LV Cable	LV UG Cable	km	-	0.2%	19.0%	80.8%	-	2	1.1%
57	LV	LV Streetlighting	LV OH/UG Streetlight circuit	km	1.0%	1.1%	31.9%	66.0%	-	2	-
58	LV	Connections	OH/UG consumer service connections	No.	-	1.9%	11.5%	39.0%	47.6%	1	-
59	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	-	30.3%	15.3%	54.4%	-	3	30.4%
60	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	-	26.5%	15.1%	58.5%	-	3	14.9%
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	16.7%
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	-	-

Schedule 12b: Forecast capacity

Company Name **Powerco**
 AMP Planning Period **1 April 2018 – 31 March 2028**

SCHEDULE 12b: REPORT ON FORECAST CAPACITY

This schedule requires a breakdown of current and forecast capacity and utilisation for each zone substation and current distribution transformer capacity. The data provided should be consistent with the information provided in the AMP. Information provided in this table should relate to the operation of the network in its normal steady state configuration.

sch.ref

12b(j): System Growth - Zone Substations

Existing Zone Substations	Current Peak Load (MVA)	Installed Firm Capacity (MVA)	Security of Supply Classification (type)	Transfer Capacity (MVA)	Utilisation of Installed Firm Capacity %	Installed Firm Capacity +5 years (MVA)	Utilisation of Installed Firm Capacity +5 yrs %	Installed Firm Capacity Constraint +5 years (cause)	Explanation
Coromandel	4.8	-	N-1 SW	-	-	-	-	Subtransmission circuit	Single 66kV circuit.
Kerepehi	10.2	-	N	1.8	-	6.5	163%	Transformer	Upgrade removes single cct constraint, exposing Tx cap
Matatoki	5.7	-	N	1.7	-	-	-	Transformer	Single Tx
Tairua	8.7	7.5	N	-	115%	7.5	120%	Transformer	Subtr. Upgrades. Sub remains just over Tx firm capacity.
Thames T1 & T2	13.5	-	N-1	1.7	-	19.2	71%	No constraint within +5 years	66kV upgrade removes binding constraint
Thames T3	3.4	6.9	N-1 SW	6.9	49%	6.9	49%	No constraint within +5 years	0
Whitianga	17.4	-	N-1	1.4	-	16.2	68%	No constraint within +5 years	Subtrans upgrades, Txs offloaded & protection upgrades
Paeroa	8.4	6.0	N	2.0	140%	10.2	84%	No constraint within +5 years	Transfs replaced during period.
Waihi	18.4	16.0	N-1	-	115%	16.0	119%	No constraint within +5 years	Customer agreed security.
Waihi 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 o/s 5 yrs by non-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 Tx soon after 2022
Hamilton St	15.7	22.4	N-1	10.7	70%	22.4	75%	No constraint within +5 years	0
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	0
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	0
Omanu	15.7	24.3	N-1	11.1	64%	24.3	67%	No constraint within +5 years	0
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 upgrade
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	0
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	0
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	4.5	1.2	N	1.2	390%	1.2	390%	No constraint within +5 years	Customer agreed security
Waitoa	12.7	18.8	N-1	-	68%	18.8	68%	No constraint within +5 years	0
Walton	5.9	-	N	0.6	-	-	-	Transformer	Single Transformer. Risk managed operationally
Browne St	10.0	10.6	N-1	3.8	95%	10.6	102%	Transformer	Very minor, low risk. Managed operationally
Lake Rd	6.0	-	N	0.9	-	14.0	44%	No constraint within +5 years	2nd transformer in 2019
Tirau	9.5	-	N	-	-	-	-	Transformer	Single transformer. 2nd Tx planned post 2022

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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	
58	Brooklands	15.4	27.0	N-1	9.5	57%	27.0	60%	No constraint within +5 years	
59	Cardiff	1.6	4.1	N-1 SW	4.1	40%	4.1	41%	No constraint within +5 years	
60	City	19.2	20.1	N-1	10.7	95%	20.1	99%	No constraint within +5 years	
61	Cloton Rd	10.8	13.0	N-1	1.0	83%	13.0	86%	No constraint within +5 years	
62	Douglas	1.7	1.7	N	1.7	101%	1.7	101%	Subtransmission circuit	Single circuit. Very low risk. Most load can be backed.
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	
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	
67	McKee	1.4	1.6	N-1 SW	1.6	90%	1.6	99%	No constraint within +5 years	
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 backed adequate for ~10 years
71	Pohokura	5.2	9.2	N-1	-	57%	9.2	57%	No constraint within +5 years	
72	Waihapa	1.2	1.4	N-1	1.4	87%	1.4	87%	No constraint within +5 years	
73	Waitara East	6.3	10.1	N-1	1.1	63%	10.1	67%	No constraint within +5 years	
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	
76	Kapuni	6.8	7.0	N-1	3.4	98%	7.0	96%	No constraint within +5 years	
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	Manaiā	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	
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	Hatrick's Wharf	11.5	-	N	6.0	-	10.0	115%	Transformer	Single transf, but 11kV bus tie (Taupo Quay) mitigates risk
87	Kai Iwi	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	-	N	9.8	-	10.0	115%	Transformer	2nd 33kV circuit built. Single Tx with bus tie limits security.
91	Wanganui East	8.6	3.1	N	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	145%	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

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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	-	-	-	-	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	N	0.5	24%	3.0	24%	No constraint within +5 years		
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		
118	Hau Nui	1.0	-	N	-	-	-	-	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		
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 each zone substation										

Schedule 12c: Forecast network demand

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

SCHEDULE 12C: REPORT ON FORECAST NETWORK DEMAND

This schedule requires a forecast of new connections (by consumer type), peak demand and energy volumes for the disclosure year and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumptions used in developing the expenditure forecasts in Schedule 11a and Schedule 11b and the capacity and utilisation forecasts in Schedule 12b.

sch ref								
7	12c(i): Consumer Connections							
8	<i>Number of ICPs connected in year by consumer type</i>							
9			Number of connections					
10		for 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	<i>Consumer types defined by EDB*</i>		FY18	FY19	FY20	FY21	FY22	FY23
12	Small		5,235	4,601	4,601	4,601	4,601	4,601
13	Commercial		44	42	42	42	42	42
14	Industrial		9	14	14	14	14	14
15								
16								
17	Connections total		5,288	4,657	4,657	4,657	4,657	4,657
18	<i>*include additional rows if needed</i>							
19	Distributed generation							
20	Number of connections		706	706	706	706	706	706
21	Installed connection capacity of distributed generation (MVA)		3	3	3	3	3	3
22	12c(ii) System Demand							
23								
24	Maximum coincident system demand (MW)	for 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
25	GXP demand		733	740	746	753	759	766
26	plus Distributed generation output at HV and above		164	165	167	169	171	172
27	Sch 12c Maximum coincident system demand [MW]		897	905	913	922	930	938
28	less Net transfers to (from) other EDBs at HV and above		-	-	-	-	-	-
29	Demand on system for supply to consumers' connection points		897	905	913	922	930	938

30	Electricity volumes carried (GWh)						
31	Electricity supplied from GXPs	4,237	4,284	4,331	4,377	4,424	4,471
32	<i>less</i> Electricity exports to GXPs	42	42	42	42	42	42
33	<i>plus</i> Electricity supplied from distributed generation	903	911	920	928	936	945
34	<i>less</i> 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	<i>less</i> 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%

Schedule 12d: Forecast interruptions and durations

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

SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION

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.

sch ref		for year ended	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
			31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
10	SAIDI							
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

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

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.

sch ref		for year ended	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
			31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
10	SAIDI							
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

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

SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION

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.

sch ref		for year ended	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
			31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23
10	SAIDI							
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.

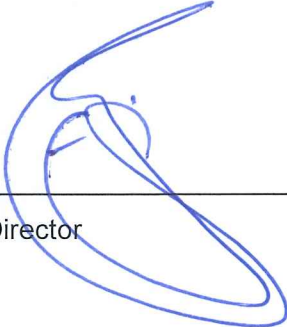
Directors' Certificate

CERTIFICATE FOR YEAR-BEGINNING DISCLOSURES

Pursuant to clause 2.9.2 of section 2.9

We, John Loughlin and Paul Callow, being directors of Powerco Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

- 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 align with Powerco's corporate vision and strategy and are documented in retained records.



Director

24/5/18
Date



Director

24.5.18
Date