NELSON ELECTRICITY LTD

Nelson Electricity Ltd
Asset Management Plan
Update

April 2020 – March 2030

April 2020

Nelson Electricity Ltd central Nelson city view

In accordance with the Commerce Act
Electricity Distribution Information Disclosure Determination 2012

Nelson Electricity Limited - Asset Management Plan Update 2020-2030

SCHEDULE 17
Certification of Year-beginning Disclosures

Clause 2.9.1

We, Michael John McCliskie and Oliver Rupert Kearney, being directors of Nelson Electricity Limited certify that, having made all reasonable inquiry, to the best of our knowledge:

a) The following attached information of Nelson Electricity Limited prepared for the purposes of clauses 2.4.1, 2.6.1, 2.6.3, 2.6.6 and 2.7.2 of the Electricity Distribution 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 both align with Nelson Electricity Limited's corporate vision and strategy and are documented in retained records.

Signed 

Date 20th April 2020

Signed 

Date 20th April 2020

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SECTION 1 – Asset Management Plan Update

This Asset Management Plan is prepared as the key internal asset planning document for Nelson Electricity. It is also designed to meet Electricity Distribution Information Disclosure Determination 2012.

Nelson Electricity has reviewed the 2018–2028 Asset Management Plan and has determined that there have not been any significant material changes to the Plan and forecasts and has opted to disclose an update as per Electricity Distribution Information Disclosure Determination 2012 clause 2.6.3 instead of disclosing a full Asset Management Plan.

SECTION 2 – Development Plan – Material Changes

The Development Plan that is used as a basis for this Asset Management Plan update is not materially different from that disclosed in the 2018-2028 Asset Management Plan. This update is based on the peak demand (MW) remaining unchanged at 35MVA and kWh consumption remaining at current levels.

The 2020-2021 year is tracking at 1.8% below previous year's volumes. The Mass Market consumers (Load Groups 1 and 2) consumption remains relatively flat with most of the reduction with larger Time of Use consumers (Load Group 3). It is forecasted that consumption will remain at current levels which is in line with the 2018 - 2018 Asset Management Plan.

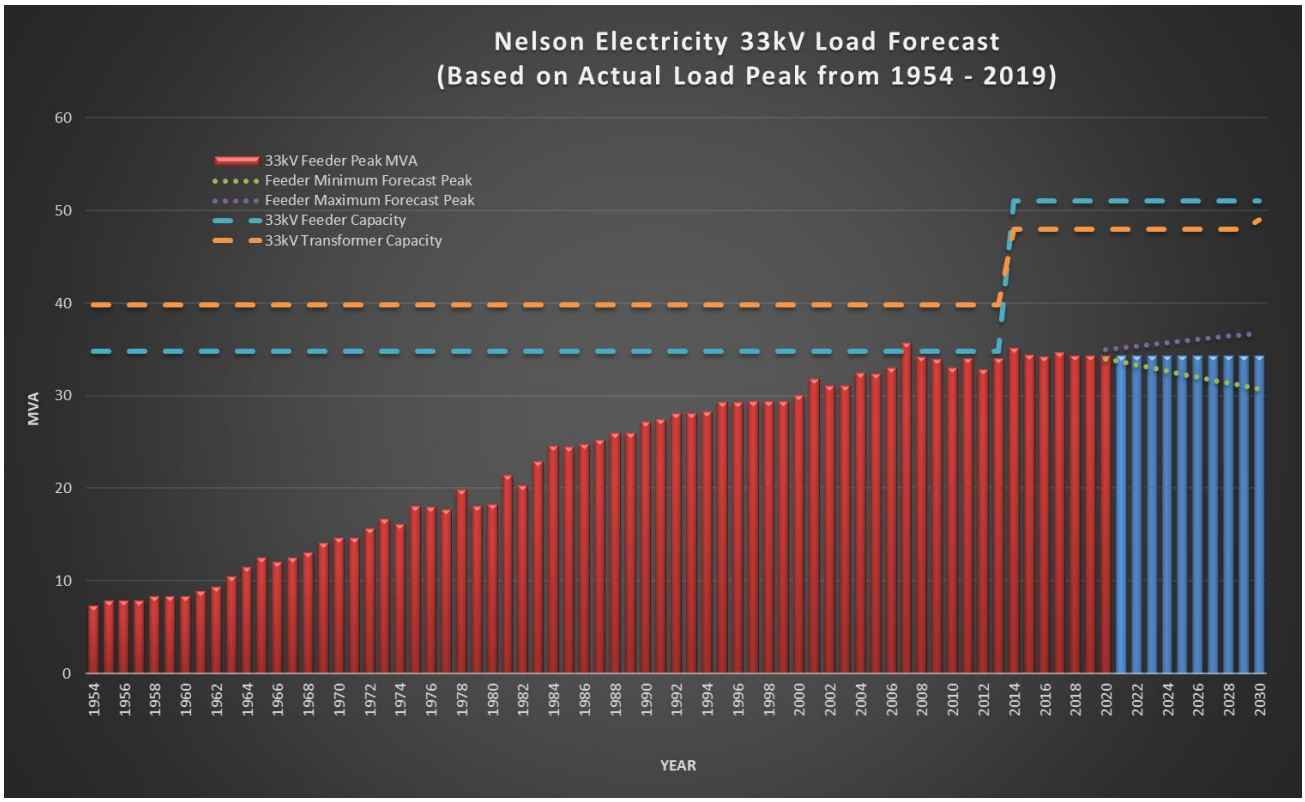

Figure 1: Nelson Electricity Historical Peak Demand and Forecast Demand

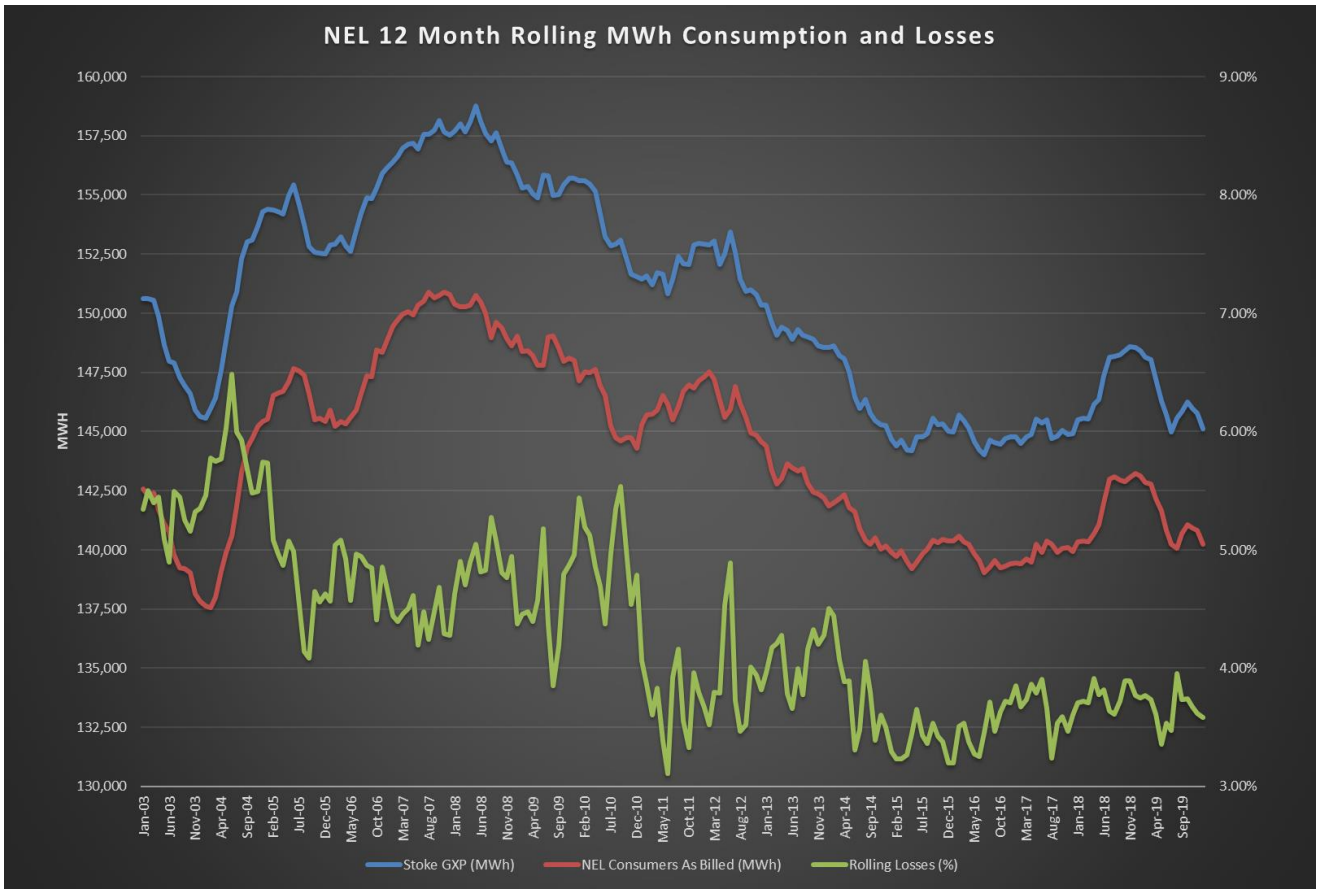

Figure 2: Nelson Electricity Historical GXP and Billed Consumption MWh

SECTION 3 – Lifecycle Management (Maintenance and Renewal) – Material Changes

There were no material changes to the lifecycle management since the April 2018 Asset Management Plan disclosure.

Operational Expenditure is forecast to be on target of the $753k budget.

The 2020-2021 year will see operational expenditure in line with the 2018–2028 Asset Management Plan forecast.

The financial impact is outlined in Section 4.

SECTION 4 – Capital and Operational Expenditure Forecast – Material Changes

Capital Expenditure

There is no material change to the Asset Management Plan for the period 2020-2030.

Nelson Electricity continually reviews and prioritises planned projects. Where possible Nelson Electricity may reschedule projects within the Capital Expenditure Plan to align with Nelson City Council and other utility operator activities to minimise disruption and civil costs.

Operational Expenditure

The operational expenditure for the period 2020-2021 is estimated at $2,255k with a 2.0% annual increase thereafter. There are no material changes to the overall operational expenditure.

SECTION 5 – Changes in Asset Management Practises

There are no material changes to existing asset management practises.

Company Name	**Nelson Electricity Ltd**
AMP Planning Period	**1 April 2020 – 31 March 2030**

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
8		for year ended	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	31 Mar 29	31 Mar 30
9	**11a(i): Expenditure on Assets Forecast**		**$000 (in nominal dollars)**										
10		Consumer connection	92	85	86	51	52	52	53	53	54	55	56
11		System growth	335	195	152	153	155	156	158	165	162	165	167
12		Asset replacement and renewal	833	950	798	785	999	1,113	1,156	1,216	1,159	1,209	1,227
13		Asset relocations	258	65	40	51	52	-		-	-	-	-
14		Reliability, safety and environment:											
15		Quality of supply	-	50	253	301	242	52	347	235	54	55	112
16		Legislative and regulatory	-	-	-	-	-	-	-	-	-	-	-
17		Other reliability, safety and environment	216	145	192	214	-	125		32	135	137	139
18		**Total reliability, safety and environment**	216	195	444	515	242	177	347	267	189	192	251
19		**Expenditure on network assets**	1,734	1,490	1,520	1,556	1,499	1,498	1,713	1,702	1,565	1,621	1,701
20		Expenditure on non-network assets	13	27	78	28	28	80	28	29	83	30	30
21		**Expenditure on assets**	1,747	1,517	1,598	1,583	1,527	1,579	1,742	1,730	1,648	1,651	1,731
22													
23	*plus*	Cost of financing		-	-	-	-	-	-	-	-	-	-
24	*less*	Value of capital contributions	80	-	-	-	-	-	-	-	-	-	-
25	*plus*	Value of vested assets		-	192	-	-	125	-	-	-	-	-
26													
27		**Capital expenditure forecast**	1,667	1,517	1,790	1,583	1,527	1,703	1,742	1,730	1,648	1,651	1,731
28													
29		Assets commissioned	1,667	1,517	1,790	1,583	1,527	1,703	1,742	1,730	1,648	1,651	1,731

			Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
31		for year ended	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	31 Mar 29	31 Mar 30
32			**$000 (in constant prices)**										
33		Consumer connection	92	85	85	50	50	50	50	50	50	50	50
34		System growth	335	195	150	150	150	150	150	155	150	150	150
35		Asset replacement and renewal	833	950	790	770	970	1,070	1,100	1,140	1,070	1,100	1,100
36		Asset relocations	258	65	40	50	50	-	-	-	-	-	-
37		Reliability, safety and environment:											
38		Quality of supply	-	50	250	295	235	50	330	220	50	50	100
39		Legislative and regulatory	-	-	-	-	-	-	-	-	-	-	-
40		Other reliability, safety and environment	216	145	190	210	-	120		30	125	125	125
41		**Total reliability, safety and environment**	216	195	440	505	235	170	330	250	175	175	225
42		**Expenditure on network assets**	1,734	1,490	1,505	1,525	1,455	1,440	1,630	1,595	1,445	1,475	1,525
43		Expenditure on non-network assets	13	27	77	27	27	77	27	27	77	27	27
44		**Expenditure on assets**	1,747	1,517	1,582	1,552	1,482	1,517	1,657	1,622	1,522	1,502	1,552
45													
46		**Subcomponents of expenditure on assets (where known)**											
47		Energy efficiency and demand side management, reduction of energy losses											
48		Overhead to underground conversion		-	190	-	-	120	-	-	-	-	-
49		Research and development											

	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 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	31 Mar 29	31 Mar 30
Difference between nominal and constant price forecasts	$000										
Consumer connection	-	-	1	1	2	2	3	3	4	5	6
System growth	-	-	2	3	5	6	8	10	12	15	17
Asset replacement and renewal	0	-	8	15	29	43	56	76	89	109	127
Asset relocations	-	-	0	1	2	-	-	-	-	-	-
Reliability, safety and environment:											
Quality of supply	-	-	3	6	7	2	17	15	4	5	12
Legislative and regulatory	-	-	-	-	-	-	-	-	-	-	-
Other reliability, safety and environment	0	-	2	4	-	5	-	2	10	12	14
Total reliability, safety and environment	0	-	4	10	7	7	17	17	14	17	26
Expenditure on network assets	0	-	15	31	44	58	83	107	120	146	176
Expenditure on non-network assets	0	-	1	1	1	3	1	2	6	3	3
Expenditure on assets	0	-	16	31	45	62	85	108	126	149	179

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
for year ended	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
11a(ii): Consumer Connection						
*Consumer types defined by EDB**	$000 (in constant prices)					
Group 2	92	85	85	50	50	50
*include additional rows if needed						
Consumer connection expenditure	92	85	85	50	50	50
less Capital contributions funding consumer connection						
Consumer connection less capital contributions	92	85	85	50	50	50
11a(iii): System Growth						
Subtransmission	-	-	-	-	-	-
Zone substations	-	-	-	-	-	-
Distribution and LV lines		-	-	-	-	-
Distribution and LV cables	50	45	-	-	-	-
Distribution substations and transformers	285	50	50	50	50	50
Distribution switchgear		-	-	-	-	-
Other network assets		100	100	100	100	100
System growth expenditure	335	195	150	150	150	150
less Capital contributions funding system growth	80					
System growth less capital contributions	255	195	150	150	150	150

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
	for year ended	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
11a(iv): Asset Replacement and Renewal		$000 (in constant prices)					
Subtransmission			-	-	-	-	-
Zone substations			-	-	-	-	-
Distribution and LV lines		95	-	-	-	-	40
Distribution and LV cables			305	695	675	910	760
Distribution substations and transformers		171	-	-	-	-	-
Distribution switchgear		527	555	-	-	-	-
Other network assets		39	90	95	95	60	270
Asset replacement and renewal expenditure		833	950	790	770	970	1,070
less Capital contributions funding asset replacement and renewal							
Asset replacement and renewal less capital contributions		833	950	790	770	970	1,070

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
	for year ended	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
11a(v): Asset Relocations							
*Project or programme**		$000 (in constant prices)					
Relocate AMP substation (programme)			45	20	-	-	-
Relocate New South Wales substation (programme)			20	20	50	50	-
Reocate Normanby Bridge Substation		258					
*include additional rows if needed							
All other project or programmes - asset relocations							
Asset relocations expenditure		258	65	40	50	50	-
less Capital contributions funding asset relocations							
Asset relocations less capital contributions		258	65	40	50	50	-

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
	for year ended	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
11a(vi): Quality of Supply							
*Project or programme**		$000 (in constant prices)					
Age related HV & LV cable test programme			50	-	-	50	-
Emano St VCB tripping CB				250			
Locking to Wellington St HV link					125		
Brook St - Scotland St LBx to Tantragee Sub HV Ring					40		
Griffins - Nile Street Bridge substation HV XL cable I rating upgrade					80		
CBD LV cables review and replacment programme					50	50	50
Kirkpatricks to Gloucester St 0.0225 HV PI cable (1969) replacement & I rating upgrade - Zone substation new feeder interconnect.						135	
Qu *include additional rows if needed							
less All other projects or programmes - quality of supply							
Quality of supply less capital contributions		-	50	250	295	235	50
Capital contributions funding quality of supply							
		-	50	250	295	235	50

11a(vii): Legislative and Regulatory

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
for year ended	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
*Project or programme**	$000 (in constant prices)					
Le *include additional rows if needed						
less All other projects or programmes - legislative and regulatory						
Legislative and regulatory less capital contributions	-	-	-	-	-	-
Capital contributions funding legislative and regulatory						
	-	-	-	-	-	-

11a(viii): Other Reliability, Safety and Environment

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
for year ended	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
*Project or programme**	$000 (in constant prices)					
Oil filled & fused HV RMU replacement		145		210		
Matipo Tce - replace O/H sub with GM	81					
Hanby Park - replace O/H sub with GM	46					
Distribution substation padlock upgrade	33					
Spare duct installs and substation RTU upgrade	56					
Ot *include additional rows if needed						
less All other projects or programmes - other reliability, safety and environment			190			120
Other reliability, safety and environment less capital contributions	216	145	190	210	-	120
Capital contributions funding other reliability, safety and environment						
	216	145	190	210	-	120

11a(ix): Non-Network Assets

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
Routine expenditure for year ended	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24	31 Mar 25
*Project or programme**	$000 (in constant prices)					
Safety equipment	5					
Misc		25	25	25	25	25
Office Equipment		2	2	2	2	2
Computers			20			20
Vehicles			30			30
Ro *include additional rows if needed						
Atypi All other projects or programmes - routine expenditure						
	5	27	77	27	27	77
*Project or programme**						
Security camera upgrade	5					
Control room software upgrade	3					
At *include additional rows if needed						
All other projects or programmes - atypical expenditure						
Expenditure on non-network assets	8	-	-	-	-	-
	13	27	77	27	27	77

Company Name	**Nelson Electricity Ltd**
AMP Planning Period	**1 April 2020 – 31 March 2030**

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*
8	for year ended	**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**	**31 Mar 29**	**31 Mar 30**
9	**Operational Expenditure Forecast**	**$000 (in nominal dollars)**										
10	Service interruptions and emergencies	120	133	136	138	141	144	147	150	153	156	159
11	Vegetation management	42	37	38	39	40	41	42	43	43	44	44
12	Routine and corrective maintenance and inspection	480	476	495	505	515	526	536	547	558	569	569
13	Asset replacement and renewal	110	122	127	129	132	135	137	140	143	146	146
14	**Network Opex**	752	768	796	812	828	845	862	879	897	915	918
15	System operations and network support	440	450	459	468	478	487	497	507	517	527	538
16	Business support	1,023	1,037	1,058	1,079	1,100	1,122	1,145	1,168	1,191	1,215	1,239
17	**Non-network opex**	1,463	1,487	1,517	1,547	1,578	1,610	1,642	1,675	1,708	1,742	1,777
18	**Operational expenditure**	2,215	2,255	2,313	2,359	2,407	2,455	2,504	2,554	2,605	2,657	2,695

		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 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**	**31 Mar 29**	**31 Mar 30**
21		**$000 (in constant prices)**										
22	Service interruptions and emergencies	120	133	133	133	133	133	133	133	133	133	133
23	Vegetation management	42	37	37	37	37	37	37	37	37	37	37
24	Routine and corrective maintenance and inspection	480	476	476	476	476	476	476	476	476	476	476
25	Asset replacement and renewal	110	122	122	122	122	122	122	122	122	122	122
26	**Network Opex**	752	768	768	768	768	768	768	768	768	768	768
27	System operations and network support	440	450	450	450	450	450	450	450	450	450	450
28	Business support	1,023	1,037	1,037	1,037	1,037	1,037	1,037	1,037	1,037	1,037	1,037
29	**Non-network opex**	1,463	1,487	1,487	1,487	1,487	1,487	1,487	1,487	1,487	1,487	1,487
30	**Operational expenditure**	2,215	2,255	2,255	2,255	2,255	2,255	2,255	2,255	2,255	2,255	2,255

31	**Subcomponents of operational expenditure (where known)**											
32	Energy efficiency and demand side management, reduction of											
33	energy losses											
34	Direct billing*											
35	Research and Development											
36	Insurance											

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*
40	for year ended	**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**	**31 Mar 29**	**31 Mar 30**
41	**Difference between nominal and real forecasts**	**$000**										
42	Service interruptions and emergencies	-	-	3	5	8	11	14	17	20	23	26
43	Vegetation management	-	-	1	2	3	4	5	6	6	7	7
44	Routine and corrective maintenance and inspection	-	-	19	29	39	50	60	71	82	93	93
45	Asset replacement and renewal	-	-	5	7	10	13	15	18	21	24	24
46	**Network Opex**	-	-	28	44	60	77	94	111	129	147	150
47	System operations and network support	-	-	9	18	28	37	47	57	67	77	88
48	Business support	-	-	21	42	63	85	108	131	154	178	202
49	**Non-network opex**	-	-	30	60	91	123	155	188	221	255	290
50	**Operational expenditure**	-	-	58	104	152	200	249	299	350	402	440

Company Name	**Nelson Electricity Ltd**
AMP Planning Period	**1 April 2020 – 31 March 2030**

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	H1	H2	H3	H4	H5	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.			5%	75%	20%		4	1.00%
11	All	Overhead Line	Wood poles	No.			15%	85%			4	1.00%
12	All	Overhead Line	Other pole types	No.							N/A	
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km							N/A	
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km							N/A	
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km				100%			3	
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km							N/A	
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				100%			3	
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.					100%		4	
25	HV	Zone substation Buildings	Zone substations 110kV+	No.							N/A	
26	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.					100%		4	
27	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.							N/A	
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.							N/A	
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.							N/A	
30	HV	Zone substation switchgear	33kV RMU	No.							N/A	
31	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.							N/A	
32	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.							N/A	
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.					100%		4	
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.							N/A	

	Voltage	Asset category	Asset class	Units	Asset condition at start of planning period (percentage of units by grade) H1	H2	H3	H4	H5	Grade unknown	Data accuracy (1–4)	% of asset forecast to be replaced in next 5 years
39	HV	Zone Substation Transformer	Zone Substation Transformers	No.					100%		4	
40	HV	Distribution Line	Distribution OH Open Wire Conductor	km				78%	22%		3	
41	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km							N/A	
42	HV	Distribution Line	SWER conductor	km							N/A	
43	HV	Distribution Cable	Distribution UG XLPE or PVC	km			20%	65%	15%		2	10.00%
44	HV	Distribution Cable	Distribution UG PILC	km			60%	40%			2	1.00%
45	HV	Distribution Cable	Distribution Submarine Cable	km							N/A	
46	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.				100%			4	
47	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.			31%	14%	55%		4	31.00%
48	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.				100%			3	40.00%
49	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.				100%			3	
50	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.			1%	49%	50%		3	5.00%
51	HV	Distribution Transformer	Pole Mounted Transformer	No.			10%	90%			3	10.00%
52	HV	Distribution Transformer	Ground Mounted Transformer	No.			9%	74%	17%		3	1.00%
53	HV	Distribution Transformer	Voltage regulators	No.							N/A	
54	HV	Distribution Substations	Ground Mounted Substation Housing	No.				80%	20%		3	
55	LV	LV Line	LV OH Conductor	km				100%			3	
56	LV	LV Cable	LV UG Cable	km			20%	60%	20%		2	
57	LV	LV Streetlighting	LV OH/UG Streetlight circuit	km			30%	60%	10%		2	
58	LV	Connections	OH/UG consumer service connections	No.				60%	40%		3	
59	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.					100%		3	
60	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot				10%	90%		3	
61	All	Capacitor Banks	Capacitors including controls	No.							N/A	
62	All	Load Control	Centralised plant	Lot					100%		4	
63	All	Load Control	Relays	No.							N/A	
64	All	Civils	Cable Tunnels	km							N/A	

Company Name	**Nelson Electricity Ltd**
AMP Planning Period	**1 April 2020 – 31 March 2030**

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

7 **12b(i): System Growth - Zone Substations**

sch ref	*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 + 5yrs %	Installed Firm Capacity Constraint +5 years (cause)	Explanation
9	Haven Road Zone Substation	35	48	N-1	4	73%	48	71%	[Select one]	
10						-			[Select one]	
11						-			[Select one]	
12						-			[Select one]	
13						-			[Select one]	
14						-			[Select one]	
15						-			[Select one]	
16						-			[Select one]	
17						-			[Select one]	
18						-			[Select one]	
19						-			[Select one]	
20						-			[Select one]	
21						-			[Select one]	
22						-			[Select one]	
23						-			[Select one]	
24						-			[Select one]	
25						-			[Select one]	
26						-			[Select one]	
27						-			[Select one]	
28						-			[Select one]	

29 [1] *Extend forecast capacity table as necessary to disclose all capacity by each zone substation*

Company Name	**Nelson Electricity Ltd**
AMP Planning Period	**1 April 2020 – 31 March 2030**

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

12c(i): Consumer Connections

Number of ICPs connected in year by consumer type

				Number of connections				
			Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
		for year ended	**31 Mar 20**	**31 Mar 21**	**31 Mar 22**	**31 Mar 23**	**31 Mar 24**	**31 Mar 25**
	*Consumer types defined by EDB**							
	Load Group 0 (Unmetered and Builders Temporary)		3	-	-	-	-	-
	Load Group 1 (Low User)		27	24	24	24	24	24
	Load Group 2 (Mass Market - Residential)		23	20	20	20	20	20
	Load Group 2 (Mass Market - Business)		11	15	15	15	15	15
	Load Group 3 (Time of Use)		1	1	1	1	1	1
	Connections total		65	60	60	60	60	60
	**include additional rows if needed*							
	Distributed generation							
	Number of connections		17	60	90	120	160	180
	Capacity of distributed generation installed in year (MVA)		0.1	0.2	0.2	0.3	0.4	0.5

12c(ii) System Demand

			Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
	Maximum coincident system demand (MW)	for year ended	**31 Mar 20**	**31 Mar 21**	**31 Mar 22**	**31 Mar 23**	**31 Mar 24**	**31 Mar 25**
	GXP demand		33	33	33	33	33	33
plus	Distributed generation output at HV and above		-	-	-	-	-	-
	Maximum coincident system demand		33	33	33	33	33	33
less	Net transfers to (from) other EDBs at HV and above							
	Demand on system for supply to consumers' connection points		33	33	33	33	33	33
	Electricity volumes carried (GWh)							
	Electricity supplied from GXPs		145	145	145	145	145	145
less	Electricity exports to GXPs		-	-	-	-	-	-
plus	Electricity supplied from distributed generation		0	0	0	1	1	1
less	Net electricity supplied to (from) other EDBs		-	-	-	-	-	-
	Electricity entering system for supply to ICPs		145	145	145	145	145	145
less	Total energy delivered to ICPs		140	140	140	140	140	140
	Losses		5	5	5	5	5	5
	Load factor		50%	50%	50%	50%	50%	50%
	Loss ratio		3.6%	3.5%	3.5%	3.5%	3.5%	3.6%

Company Name	**Nelson Electricity Ltd**
AMP Planning Period	**1 April 2020 – 31 March 2030**
Network / Sub-network Name	

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		*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
8							
9	for year ended	**31 Mar 20**	**31 Mar 21**	**31 Mar 22**	**31 Mar 23**	**31 Mar 24**	**31 Mar 25**
10	**SAIDI**						
11	Class B (planned interruptions on the network)	11.5	15.0	15.0	15.0	15.0	15.0
12	Class C (unplanned interruptions on the network)	0.6	30.0	30.0	30.0	30.0	30.0
13	**SAIFI**						
14	Class B (planned interruptions on the network)	0.03	0.30	0.30	0.30	0.30	0.30
15	Class C (unplanned interruptions on the network)	0.01	0.60	0.60	0.60	0.60	0.60

SCHEDULE 14a - Mandatory Explanatory Notes on Forecast Information

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

2. 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)

3. 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

Given the low level of inflation and interest rates, the difference between nominal and constant was assessed at 1% for the 2020-2021 to 2024-2025 years and 1.5% for every year thereafter for the planning period.

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

4. 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

Given the low level of inflation and interest rates, the difference between nominal and constant was assessed at 2% per year for the planning period.