NELSON ELECTRICITY LTD

Nelson Electricity Ltd Asset Management Plan Update

April 2024 – March 2034

April 2024

Nelson Electricity Ltd central Nelson city view

Nelson Electricity uses accredited public safety auditors Telarc to comply with NZS 7901 for Public Safety

Public Safety
Telarc. Registered
Public Safety NZS 7901

Director Certification

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

Nelson Electricity Limited - Asset Management Plan Update 2024-2034

SCHEDULE 17
Certification of Year-beginning Disclosures

Clause 2.9.1

We, Oliver Rupert Kearney and Timothy James Cosgrove, 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 28 March 2024

Signed 

Date 28 March 2024

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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 2023–2033 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 2023-2033 Asset Management Plan. This update is based on the peak demand (MW) remaining unchanged at 33 – 34MW and kWh consumption remaining at current levels. The 2023-2024 years consumption is tracking at approximately 1.3% below previous year's volumes.

kWh Consumption Forecast

Nelson Electricity, from the 1950s up until 2008, had consistent kWh growth of approximately 1.0% -1.5% per year.

Since 2008 kWh consumption has reduced at approximately 1.0% per year. The global financial crisis may have started the decline in consumption in 2008 but the decline continued due to the following changes at consumer level:

- Older appliances being replaced with more energy efficient options;
- LED lighting replacing incandescent and compact fluorescent light bulbs;
- Improvements in home insulation;
- Greater energy conservation by electricity consumers;
- Higher electricity prices;
- Installation of solar PV.

While there were signs of flattening to increasing consumption in the period 2015 - 2019, the impacts of Covid19 have resulted in a continued decline in consumption on the network.

It is assessed that the short term (1–3 year) outlook for Nelson Electricity is for consumption to remain flat. Consumption will then begin increasing in the medium term (4-10 years) at 1% to 1.5% per year for the following reasons:

- Electric vehicles being more cost effective;
- EV charging options being more prevalent on the network whether they be public or private;
- Decarbonisation of other energy uses, eg; boilers and industrial machinery becoming more prevalent.

Any increase in consumption with decarbonisation projects in the short term will more than likely be offset by the increase of kWh being generated and used behind the meter through solar PV installations.

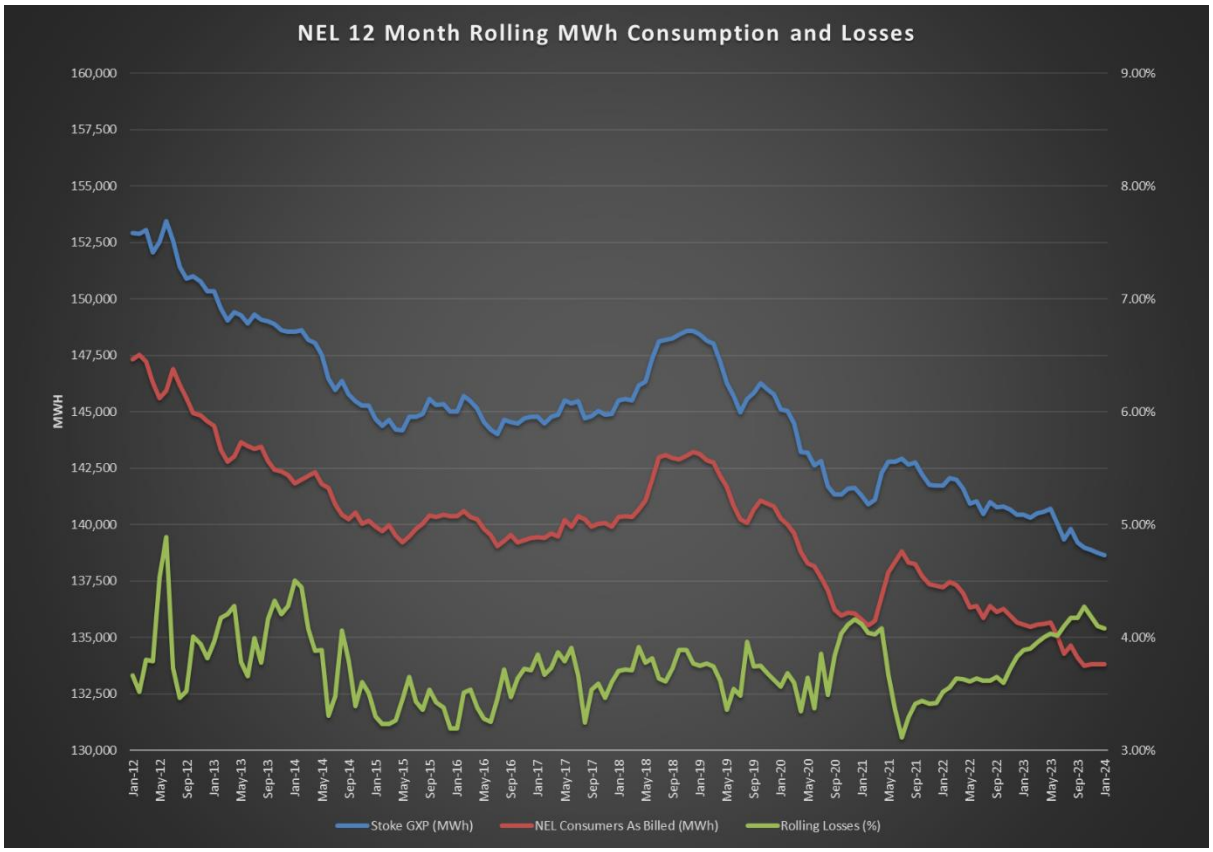

Figure 1: Nelson Electricity Historical GXP and Billed Consumption MWh

Peak Demand

Peak demand, up until 2008, was increasing at the same rate as kWh's at approximately 1.0% - 1.5% but since 2008 has flattened off but not decreased. This peak demand level has remained unchanged. The reason peak demand growth has not tracked downward with consumption is due to the lower utilisation of load control at peak demand times. Load control is now being principally used for network and electrical industry emergency purposes and minimising transmission connection costs as there are currently no upper network constraints on the Nelson Electricity network to manage load for.

There is limited opportunity for new load/connections on the network as there is limited undeveloped land available in the central Nelson city area. Many recent re-developments of land typically have resulted in no additional growth given any new building uses less electricity overall. There is some activity in the building intensification space, and this is expected to increase in the coming years.

The following graph in Figure2 demonstrates how the peak demand has flattened since 2008.

With the information Nelson Electricity has on hand, it is assessed that the short to medium term (1-5 years) outlook for Nelson Electricity is no change to peak demand with 0% growth. Depending on the number and behaviour of EV charging and decarbonisation of other energy uses, peak demand could start to increase by 1% - 1.5% per year thereafter.

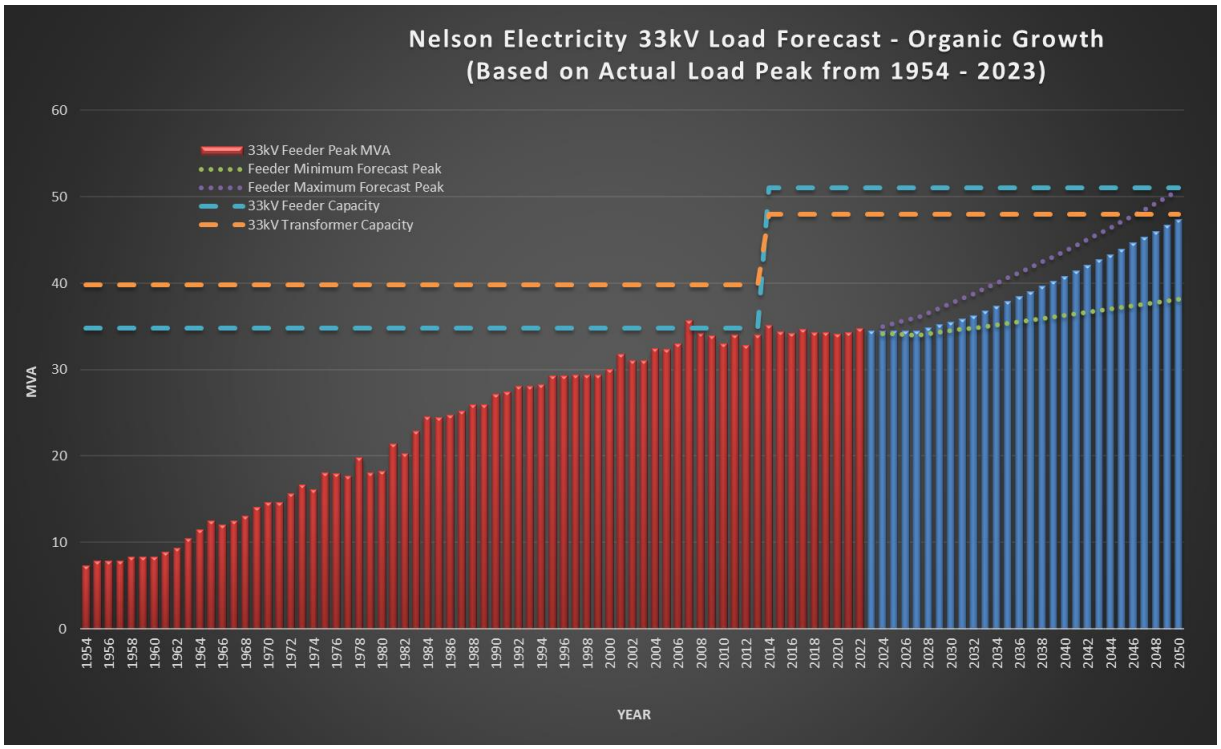

Figure 2: Nelson Electricity Historical Peak Demand and Forecast Demand (used in AMP)

The peak demand would increase significantly should there be decarbonisation of large boilers and other industry processes. There are known decarbonisation opportunities of varying levels of certainty that could significantly alter the network and result in advancing the need for additional expenditure in the network.

Given Nelson Electricity is not congested, much of the expenditure required on the upper network (sub-transmission and zone substation capacity) could bring forward expenditure from 2050 back to as early as mid to late 2030's. There could, however, be additional investment required within the 10 year planning horizon in the 11kV and low voltage network for these projects to occur.

Nelson Electricity will factor in the network impact of projects when there is certainty on them proceeding. See figure 3.

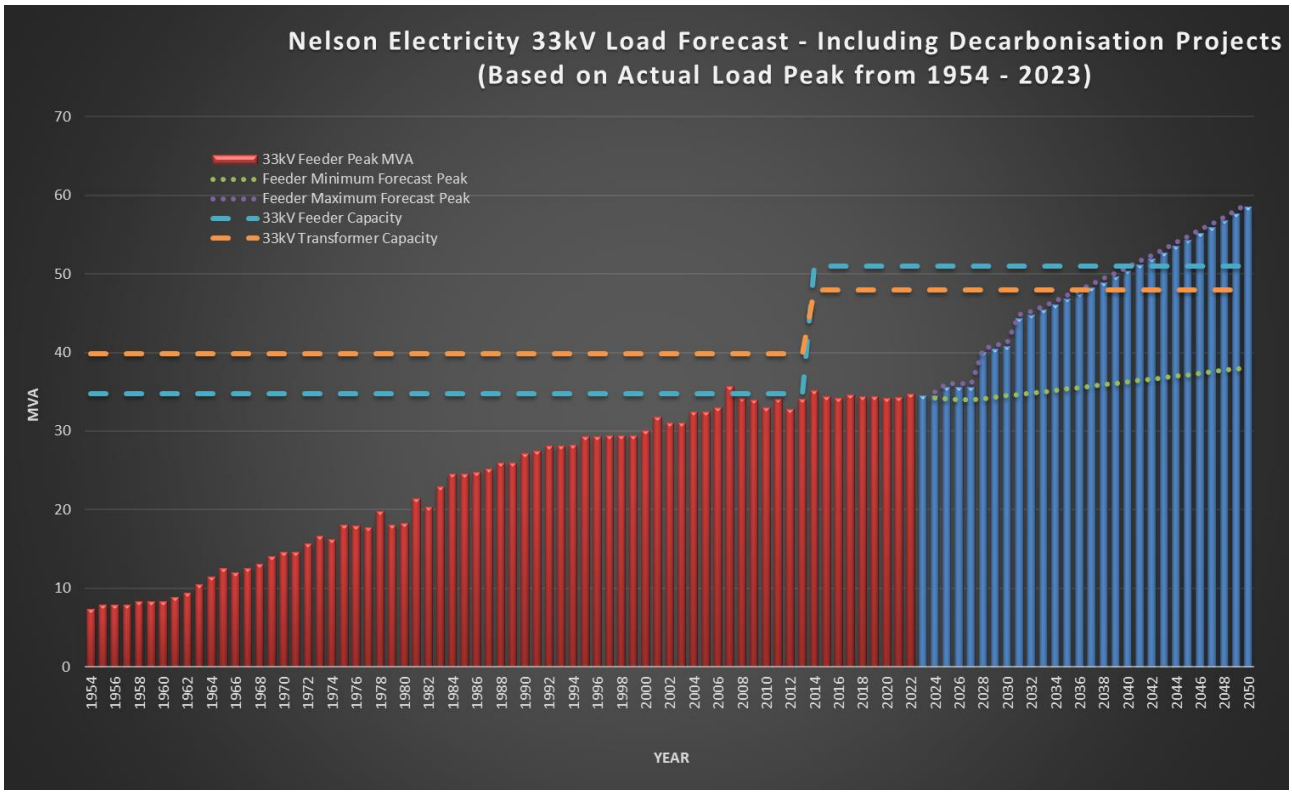

Figure 3: Nelson Electricity Historical Peak Demand and Forecast Demand (includes known decarbonisation opportunities)

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

There were no material changes to the lifecycle management since the April 2023 Asset Management Plan disclosure.

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 2024-2034 from a "works" perspective. Costs, however, have continued to increase throughout the year. The major increases are in civil and traffic management. These increases are factored into both the Capital and Operational Expenditure forecasts.

Capital Expenditure for the 2024-2025 year is forecast to be $1.89M or 6.9% under the $2.03M budget (excluding developer driven projects). This has been mainly due to switchgear supply chain issues and delays with corridor access. The delayed work will be completed in the 2024-2025 year of the planning period. Several developer-driven projects have also been delayed or did not proceed as planned. Provision for these projects has been moved into the current planning period.

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

Network Operational Expenditure FY2024 is forecast to be $21k or 2.3% over the $911k budget.

Non-Network Operational Expenditure FY2024 is in in line with the 2023–2033 Asset Management Plan forecast.

There are no material changes to the overall operational expenditure. The Network Operational Expenditure FY2025 is estimated at $951k with a 2.0% increase for FY2026 every year for the rest of the planning period. Non-network expenditure FY2025 is estimated at $1,670k with a 2% increase per year for the rest of the planning period.

SECTION 5 – Changes in Asset Management Practises

There are no material changes to existing asset management practises.

Company Name	**Nelson Electricity Limited**
AMP Planning Period	**1 April 2024 – 31 March 2034**

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). EDBs must express the information in this schedule (11a) as a specific value rather than ranges. Any supporting information about these values may be disclosed in Schedule 15 (Voluntary 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
9	**11a(i): Expenditure on Assets Forecast**		**$000 (in nominal dollars)**										
10		Consumer connection	200	204	208	115	117	119	122	124	127	129	132
11		System growth	231	353	337	292	965	1,044	456	466	475	484	494
12		Asset replacement and renewal	956	1,516	1,844	2,300	1,989	1,277	1,589	1,620	1,653	1,686	1,719
13		Asset relocations	-	287	56	252	-	-					-
14		Reliability, safety and environment:											
15		Quality of supply	462	165	112	201	409	328	791	807	823	840	856
16		Legislative and regulatory	-	-	-	-	-	-					-
17		Other reliability, safety and environment	105	287	315	413	175	358	122	186	127	129	132
18		**Total reliability, safety and environment**	567	452	427	614	585	686	913	993	950	969	988
19		**Expenditure on network assets**	1,953	2,811	2,873	3,573	3,656	3,127	3,080	3,203	3,204	3,268	3,334
20		Expenditure on non-network assets	34	408	115	14	73	62	85	12	63	78	13
21		**Expenditure on assets**	1,987	3,219	2,988	3,587	3,729	3,189	3,165	3,216	3,267	3,346	3,347
22													
23	*plus*	Cost of financing											
24	*less*	Value of capital contributions											
25	*plus*	Value of vested assets											
26													
27		**Capital expenditure forecast**	1,987	3,219	2,988	3,587	3,729	3,189	3,165	3,216	3,267	3,346	3,347
28													
29		Assets commissioned											

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
30												
31												
32		**$000 (in constant prices)**										
33	Consumer connection	190	185	185	100	100	100	100	100	100	100	100
34	System growth	220	320	300	255	825	875	375	375	375	375	375
35	Asset replacement and renewal	910	1,375	1,640	2,005	1,700	1,070	1,305	1,305	1,305	1,305	1,305
36	Asset relocations	-	260	50	220	-	-					
37	Reliability, safety and environment:											
38	Quality of supply	440	150	100	175	350	275	650	650	650	650	650
39	Legislative and regulatory	-	-	-	-	-	-					
40	Other reliability, safety and environment	100	260	280	360	150	300	100	150	100	100	100
41	**Total reliability, safety and environment**	540	410	380	535	500	575	750	800	750	750	750
42	**Expenditure on network assets**	1,860	2,550	2,555	3,115	3,125	2,620	2,530	2,580	2,530	2,530	2,530
43	Expenditure on non-network assets	32	370	102	12	62	52	70	10	50	60	10
44	**Expenditure on assets**	1,892	2,920	2,657	3,127	3,187	2,672	2,600	2,590	2,580	2,590	2,540
45												
46	**Subcomponents of expenditure on assets (where known)**											
	**EDBs' must disclose both a public version of this Schedule (excluding cybersecurity cost data) and a confidential version of this Schedule (including cybersecurity costs)*											
47	Energy efficiency and demand side management, reduction of energy losses											
48	Overhead to underground conversion		60	180	60							
49	Research and development											
50	Cybersecurity (Commission only)											
51												

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
Difference between nominal and constant price forecasts	**$000**										
Consumer connection	-	7	11	8	10	13	15	17	20	22	24
System growth	-	13	18	21	86	110	56	64	73	82	91
Asset replacement and renewal	-	56	100	165	177	135	194	224	255	286	318
Asset relocations	-	11	3	18	-	-	-	-	-	-	-
Reliability, safety and environment:											
Quality of supply	-	6	6	14	36	35	97	112	127	142	158
Legislative and regulatory	-	-	-	-	-	-	-	-	-	-	-
Other reliability, safety and environment	-	11	17	30	16	38	15	26	20	22	24
Total reliability, safety and environment	-	17	23	44	52	73	112	137	146	164	183
Expenditure on network assets	-	103	156	257	325	331	376	443	494	554	616
Expenditure on non-network assets	-	15	6	1	6	7	10	2	10	13	2
Expenditure on assets	-	118	163	258	332	337	387	445	503	567	618

Commentary on options and considerations made in the assessment of forecast expenditure

EDBs may provide explanatory comment on the options they have considered (including scenarios used) in assessing forecast expenditure on assets for the current disclosure year and a 10 year planning period in Schedule 15

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
11a(ii): Consumer Connection						
*Consumer types defined by EDB**	**$000 (in constant prices)**					
Load Group 2	190	185	185	100	100	100
Consumer connection expenditure	190	185	185	100	100	100
less Capital contributions funding consumer connection						
Consumer connection less capital contributions	190	185	185	100	100	100
11a(iii): System Growth						
Subtransmission		-	-	-	-	-
Zone substations		-	-	-	-	-
Distribution and LV lines		-	-	-	-	-
Distribution and LV cables	20	-	100	-	625	625
Distribution substations and transformers	200	320	200	255	200	250
Distribution switchgear		-	-	-	-	-
Other network assets		-	-	-	-	-
System growth expenditure	220	320	300	255	825	875
less Capital contributions funding system growth						
System growth less capital contributions	220	320	300	255	825	875

*include additional rows if needed

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5

11a(iv): Asset Replacement and Renewal

	$000 (in constant prices)					
Subtransmission		-	-	-	-	-
Zone substations		-	-	-	-	-
Distribution and LV lines		-	-	-	-	-
Distribution and LV cables	815	1,035	1,550	1,430	1,400	770
Distribution substations and transformers		-	-	-	-	-
Distribution switchgear		250	-	275	-	-
Other network assets	95	90	90	300	300	300
Asset replacement and renewal expenditure	910	1,375	1,640	2,005	1,700	1,070
less Capital contributions funding asset replacement and renewal						
Asset replacement and renewal less capital contributions	910	1,375	1,640	2,005	1,700	1,070

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5

11a(v): Asset Relocations

*Project or programme**	$000 (in constant prices)					
Relocate AMP substation (programme)		50	-	-	-	-
Walls Substation - Conversion to Padmount		160	-	-	-	-
Relocate New South Wales substation (programme)		50	50	150	-	-
Konini St - Replace O/H sub with GM		-	-	70	-	-
**include additional rows if needed*						
All other project or programmes - asset relocations						
Asset relocations expenditure	-	260	50	220	-	-
less Capital contributions funding asset relocations						
Asset relocations less capital contributions	-	260	50	220	-	-

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5

11a(vi): Quality of Supply

*Project or programme**	$000 (in constant prices)					
Sectionalise GPO feeder with a tripping VCB	180					
Zone substation new VCB's	210	60				
Locking St - Wellington St HV link + new HV L/Box				125		
LV network monitoring		40	50			
HV & LV cable replacements (programme)	50	50	50	50	350	275
**include additional rows if needed*						
All other projects or programmes - quality of supply						
Quality of supply expenditure	440	150	100	175	350	275
less Capital contributions funding quality of supply						
Quality of supply less capital contributions	440	150	100	175	350	275

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5

11a(vii): Legislative and Regulatory

Project or programme*	$000 (in constant prices)					
*include additional rows if needed						
All other projects or programmes - legislative and regulatory						
Legislative and regulatory expenditure	-	-	-	-	-	-
less Capital contributions funding legislative and regulatory						
Legislative and regulatory less capital contributions	-	-	-	-	-	-

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5

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

Project or programme*	$000 (in constant prices)					
11kV switch and oil filled RMU replacement (programme)	100	260	280	360	150	300
*include additional rows if needed						
All other projects or programmes - other reliability, safety and environment						
Other reliability, safety and environment expenditure	100	260	280	360	150	300
less Capital contributions funding other reliability, safety and environment						
Other reliability, safety and environment less capital contributions	100	260	280	360	150	300

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5

11a(ix): Non-Network Assets

Routine expenditure

Project or programme*	$000 (in constant prices)					
Safety equip	5					
Misc	25	5	5	5	5	5
Office equip	2	10	2	2	2	2
Computers		55	45	5	5	45
Vehicles			50		50	
*include additional rows if needed						
All other projects or programmes - routine expenditure						
Routine expenditure	32	70	102	12	62	52

Atypical expenditure

Project or programme*						
Nelson depot workshop and office re-roof		300				
[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	-	300	-	-	-	-
Expenditure on non-network assets	32	370	102	12	62	52

Company Name	**Nelson Electricity Limited**
AMP Planning Period	**1 April 2024 – 31 March 2034**

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). EDBs must express the information in this schedule (11b) as a specific value rather than ranges. If EDBs wish to provide any supporting information about these values, this may be disclosed in Schedule 15 (Voluntary 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*
9	**Operational Expenditure Forecast**	**$000 (in nominal dollars)**										
10	Service interruptions and emergencies	168	202	206	210	214	218	223	227	236	232	236
11	Vegetation management	41	49	50	51	52	53	54	56	58	57	58
12	Routine and corrective maintenance and inspection	89	93	95	97	99	101	103	105	109	107	109
13	Asset replacement and renewal	371	390	398	406	414	422	430	439	457	448	457
14	**Network Opex**	670	734	749	764	779	795	811	827	860	843	860
15	System operations and network support	280	326	333	340	346	353	360	368	375	382	394
16	Business support	1,290	1,377	1,405	1,433	1,461	1,491	1,520	1,551	1,582	1,613	1,661
17	**Non-network opex**	1,570	1,703	1,737	1,772	1,808	1,844	1,881	1,918	1,957	1,996	2,055
18	**Operational expenditure**	2,240	2,438	2,486	2,536	2,587	2,639	2,691	2,745	2,817	2,839	2,915

19		*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*	*CY+6*	*CY+7*	*CY+8*	*CY+9*	*CY+10*
21		**$000 (in constant prices)**										
22	Service interruptions and emergencies	168	192	192	192	192	192	192	192	192	192	192
23	Vegetation management	41	47	47	47	47	47	47	47	47	47	47
24	Routine and corrective maintenance and inspection	89	89	89	89	89	89	89	89	89	89	89
25	Asset replacement and renewal	371	371	371	371	371	371	371	371	371	371	371
26	**Network Opex**	670	699	699	699	699	699	699	699	699	699	699
27	System operations and network support	280	320	320	320	320	320	320	320	320	320	320
28	Business support	1,290	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350	1,350
29	**Non-network opex**	1,570	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670	1,670
30	**Operational expenditure**	2,240	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369	2,369

31	**Subcomponents of operational expenditure (where known)**											
	**EDBs' must disclose both a public version of this Schedule (excluding cybersecurity cost data) and a confidential version of this Schedule (including cybersecurity costs)*											
32	Energy efficiency and demand side management, reduction of											
33	energy losses											
34	Direct billing*											
35	Research and Development											
36	Insurance											
37	Cybersecurity (Commission only)											
38	** Direct billing expenditure by suppliers that direct bill the majority of their consumers*											

40		*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*	*CY+6*	*CY+7*	*CY+8*	*CY+9*	*CY+10*
42	**Difference between nominal and real forecasts**	**$000**										
43	Service interruptions and emergencies	-	10	14	18	22	26	31	35	44	40	44
44	Vegetation management	-	2	3	4	5	6	7	9	11	10	11
45	Routine and corrective maintenance and inspection	-	4	6	8	10	12	14	16	20	18	20
46	Asset replacement and renewal	-	19	26	34	42	51	59	68	85	77	85
47	**Network Opex**	-	35	50	65	80	95	111	128	161	144	161
48	System operations and network support	-	6	13	20	26	33	40	48	55	62	74
49	Business support	-	27	55	83	111	141	170	201	232	263	311
50	**Non-network opex**	-	33	67	102	138	174	211	248	287	326	385
51	**Operational expenditure**	-	68	117	167	218	269	322	376	448	470	546

53	**Commentary on options and considerations made in the assessment of forecast expenditure**
54	*EDBs may provide explanatory comment on the options they have considered (including scenarios used) in assessing forecast operational expenditure for the current disclosure year and a 10 year planning period in Schedule 15.*

Company Name	**Nelson Electricity Limited**
AMP Planning Period	**1 April 2024 – 31 March 2034**

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.			5.00%	75.00%	20.00%		4	1.00%
11	All	Overhead Line	Wood poles	No.			15.00%	85.00%			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				100.00%			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			50.00%	50.00%			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.					100.00%		4	
25	HV	Zone substation Buildings	Zone substations 110kV+	No.							N/A	
26	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.					100.00%		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.					100.00%		4	
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.							N/A	

					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
HV	Zone Substation Transformer	Zone Substation Transformers	No.					100.00%		4	
HV	Distribution Line	Distribution OH Open Wire Conductor	km				78.00%	22.00%		3	
HV	Distribution Line	Distribution OH Aerial Cable Conductor	km							N/A	
HV	Distribution Line	SWER conductor	km							N/A	
HV	Distribution Cable	Distribution UG XLPE or PVC	km		10.00%	10.00%	65.00%	15.00%		2	10.00%
HV	Distribution Cable	Distribution UG PILC	km		2.00%	58.00%	40.00%			2	1.00%
HV	Distribution Cable	Distribution Submarine Cable	km							N/A	
HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.				100.00%			4	
HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.			15.00%	-	85.00%		4	15.00%
HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.				100.00%			3	
HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.				100.00%			3	
HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.		3.00%	3.00%	44.00%	50.00%		3	5.00%
HV	Distribution Transformer	Pole Mounted Transformer	No.			4.00%	96.00%			3	1.00%
HV	Distribution Transformer	Ground Mounted Transformer	No.			9.00%	74.00%	17.00%		3	1.00%
HV	Distribution Transformer	Voltage regulators	No.							N/A	
HV	Distribution Substations	Ground Mounted Substation Housing	No.			10.00%	70.00%	20.00%		3	1.00%
LV	LV Line	LV OH Conductor	km				100.00%			3	
LV	LV Cable	LV UG Cable	km			20.00%	60.00%	20.00%		2	5.00%
LV	LV Streetlighting	LV OH/UG Streetlight circuit	km			30.00%	60.00%	10.00%		2	
LV	Connections	OH/UG consumer service connections	No.			10.00%	50.00%	40.00%		3	
All	Protection	Protection relays (electromechanical, solid state and numeric)	No.					100.00%		3	
All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot				10.00%	90.00%		3	
All	Capacitor Banks	Capacitors including controls	No.							N/A	
All	Load Control	Centralised plant	Lot					100.00%		4	
All	Load Control	Relays	No.							N/A	
All	Civils	Cable Tunnels	km							N/A	

Company Name	**Nelson Electricity Limited**
AMP Planning Period	**1 April 2024 – 31 March 2034**

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(i): 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 + 5yrs %	Installed Firm Capacity Constraint +5 years (cause)	Explanation
Haven Road Zone Substation	35	48	N-1	4	73%	48	80%	No constraint within +5 years	
[Zone Substation_02]					-			[Select one]	
[Zone Substation_03]					-			[Select one]	
[Zone Substation_04]					-			[Select one]	
[Zone Substation_05]					-			[Select one]	
[Zone Substation_06]					-			[Select one]	
[Zone Substation_07]					-			[Select one]	
[Zone Substation_08]					-			[Select one]	
[Zone Substation_09]					-			[Select one]	
[Zone Substation_10]					-			[Select one]	
[Zone Substation_11]					-			[Select one]	
[Zone Substation_12]					-			[Select one]	
[Zone Substation_13]					-			[Select one]	
[Zone Substation_14]					-			[Select one]	
[Zone Substation_15]					-			[Select one]	
[Zone Substation_16]					-			[Select one]	
[Zone Substation_17]					-			[Select one]	
[Zone Substation_18]					-			[Select one]	
[Zone Substation_19]					-			[Select one]	
[Zone Substation_20]					-			[Select one]	

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

Company Name	**Nelson Electricity Limited**
AMP Planning Period	**1 April 2024 – 31 March 2034**

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 during year by consumer type

		Number of connections					
		Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
	*Consumer types defined by EDB**						
	Load Group 0 (Unmetered and Builders Temporary)		-	-	-	-	-
	Load Group 1 (Low User)		15	15	15	15	15
	Load Group 2 (Mass Market - Residential)		30	30	30	30	30
	Load Group 2 (Mass Market - Business)		15	15	15	15	15
	Load Group 3 (Time of Use)		-	-	-	-	-
	Connections total	-	60	60	60	60	60

**include additional rows if needed*

		Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
	Distributed generation						
	Number of connections made in year	75	100	120	140	160	180
	Capacity of distributed generation installed in year (MVA)	0.4	0.5	0.6	0.7	0.8	0.9

12c(ii) System Demand

		Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
	Maximum coincident system demand (MW)						
	GXP demand	34	34	34	34	34	34
plus	Distributed generation output at HV and above						
	Maximum coincident system demand	34	34	34	34	34	34
less	Net transfers to (from) other EDBs at HV and above						
	Demand on system for supply to consumers' connection points	34	34	34	34	34	34
	Electricity volumes carried (GWh)						
	Electricity supplied from GXPs	139	138	138	138	139	140
less	Electricity exports to GXPs						
plus	Electricity supplied from distributed generation	1	1	1	2	2	2
less	Net electricity supplied to (from) other EDBs						
	Electricity entering system for supply to ICPs	140	140	140	139	141	142
less	Total energy delivered to ICPs	134	134	134	134	135	137
	Losses	6	6	6	6	6	6
	Load factor	47%	47%	47%	47%	47%	47%
	Loss ratio	4.1%	4.1%	4.1%	4.1%	4.1%	4.1%

Company Name	**Nelson Electricity Limited**
AMP Planning Period	**1 April 2024 – 31 March 2034**
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*
10	**SAIDI**						
11	Class B (planned interruptions on the network)	4.0	15.0	15.0	15.0	15.0	15.0
12	Class C (unplanned interruptions on the network)	5.0	15.0	15.0	15.0	15.0	15.0
13	**SAIFI**						
14	Class B (planned interruptions on the network)	0.01	0.30	0.30	0.30	0.30	0.30
15	Class C (unplanned interruptions on the network)	0.08	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

The difference between nominal and constant is assessed at 2% FY2026 and every year thereafter for the rest of 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

For Network Operational Expenditure the difference between nominal and constant is assessed at 2% FY2026 and every year thereafter for the rest of the planning period. For Non-Network Operational Expenditure, the difference between nominal and constant is assessed at 2% for every year of the planning period.