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2014 - 2024



Asset Management Plan Update 2014

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This Asset Management Plan (AMP) is available for public disclosure and applies for the period 1 April 2014 to 31 March 2024. The AMP is reviewed each year and a revised AMP is expected to be available for public disclosure by 1 April 2015. © CENTRALINES LIMITED 2014

1 Introduction

This Asset Management Plan (AMP) update has been completed pursuant to clause 2.6.4 of the Electricity Distribution Information Disclosure Determination 2012. It provides details of material changes to critical aspects of the AMP disclosed by Centralines in March 2013 and should be read as supplementary to that document. The purpose of the AMP update is to ensure that the purpose of the AMP continues to be met in years where it is not necessary for a full AMP to be disclosed. It is expected that Centralines will next disclose a full AMP in 2016.

2 Purpose of the AMP

The primary purpose of the AMP is to provide the reader with a clear and comprehensive overview of how Centralines manages its electricity distribution asset portfolio. The AMP documents parts of Centralines' Asset Management System that are used to establish line of sight and ensure that the organisation's strategic intent is transformed into optimal asset management outcomes. The plan is an important tool for fostering understanding of the business and the industry, and facilitates informed dialogue between Centralines, its owners, the communities and businesses it serves, and the organisations responsible for regulating the electricity industry in New Zealand. This dialogue, in turn, allows Centralines to improve the quality of its asset management planning.

The secondary purpose of the AMP is to discharge Centralines' responsibilities under the Electricity Distribution Information Disclosure Determination 2012. Clause 2.6.2 of the Determination provides the purpose of disclosure of asset management plans by New Zealand electricity distribution businesses, namely that the AMP:

- 1. Must provide sufficient information for an interested person to assess whether
 - a. assets are being managed for the long term;
 - b. the required level of performance is being delivered; and
 - c. costs are efficient and performance efficiencies are being achieved;
- 2. Must be capable of being understood by an interested person with a reasonable understanding of the management of infrastructure assets;
- 3. Should provide a sound basis for the on-going assessment of asset-related risks, particularly high impact asset-related risks.

For the majority of the plan, there is commonality of content required to achieve both purposes. There are, however, some instances where information is required to achieve just one of these purposes. This plan has been prepared so as to achieve the purpose of asset management plan disclosure as far as possible.

The plan can be thought of as the 'tip of the iceberg' that is asset management at Centralines. The policies, strategies, objectives, plans, standards, enterprise information systems, data, experience, capabilities, expertise and relationships that comprise Centralines' Asset Management System have been condensed, processed and communicated in a manner appropriate to achieving the purposes described above.

Interpretation of 'material changes' for AMP update

Material changes are defined as significant deviations from the 2013 AMP with respect to how Centralines manages its assets. Changes to processes, the adoption of new tools, systems and techniques are considered material. Adding, removing and rescheduling a planned project is considered material where the value of any change is greater than \$300,000.

Material change	Description of change and implications
Ruataniwha Water Storage Scheme (proposed)	Hawke's Bay Regional Investment Company (HBRIC) has proposed the construction of a water storage scheme in Central Hawke's Bay which will supply irrigation to approximately 20,000 to 30,000ha of farmland. Centralines has been working with HBRIC for the construction of the electricity
	distribution network to provide supply to the water pumping and distribution system which comprises a total of 6MW of pumping load at 27 sites across the upper Ruataniwha plains and east of Waipawa in Central Hawke's Bay.
	The project is still in the consent and submission stage, with a discussion expected in May 2014.
	Should the project go ahead and Centralines is the preferred provider of the electricity network, Centralines would need to construct approximately 30km of 33kV and 60km of 11kV line and undertake major works at three 33kV/11kV substations.

3 Material changes to network development plans

Table 1: Material changes to network development plans

Material change	Description of change and implications
-	No material changes

4 Material changes to lifecycle asset management plans

Table 2: Material changes to lifecycle asset management (maintenance or renewal) plans

5 Reasons for any material changes to expenditure forecasts

Material change	Description of change and implications
-	No material changes

Table 3: Material changes to expenditure forecasts

6 Changes to asset management practices affecting Schedule 13 Report (AMMAT)

There have been no material changes to Centralines' Asset Management Practices since the publication of the Centralines 2013 – 2023 Asset Management Plan, which will significantly change Centralines AMMAT results.

While high-level comparisons can be made between EDBs using the AMMAT, Centralines expects that collaborative work within the industry, such as the EEA's work that is underway to provide more detailed guidance on the AMMAT will help promote greater consistency across the industry and allow more robust comparisons and assessments in the future.

Change	Description of change and implications
-	No material changes

Table 4: Changes to asset management practices affecting Schedule 13 Report (AMMAT)

8.1 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.

11a(i): Expendit	ure on Assets Forecast	Current Year	CY+1	СҮ+2		
		for year ended	31 Mar 14	31 Mar 15	31 Mar 16	
			\$000 (in nomination	al dollars)		
Consu	mer connection		255	300	290	
System	n growth	200	634	214		
Asset	replacement and renewal		1,380	1,439	2,111	
Asset	relocations		-	118	132	
Reliab	lity, safety and environment:					
Q	uality of supply		40	220	254	
L	egislative and regulatory		-	-	-	
0	ther reliability, safety and environmen	t	520	18	21	
Total r	eliability, safety and environment		560	238	275	
Expenditu	ire on network assets		2,395	2,729	3,022	
Non-n	etwork assets	556	545	588		
Expenditu	ire on assets		2,951	3,274	3,610	
plus Cost o	f financing		-	-	-	
less Value	of capital contributions		340	300	265	
plus Value	of vested assets		-	-	-	
Capital ex	penditure forecast		2,055	2,429	2,757	
Value	of commissioned assets		2,150	2,729	3134	
			Current Year	CY+1	CY+2	
		for year ended	31 Mar 14	31 Mar 15	31 Mar 16	
			\$000 (in consta	nt nrices)		

for year ended	31 Mar 14	31 Mar 15	31 Mar 16	
	\$000 (in consta	nt prices)		
Consumer connection	255	300	280	
System growth	200	634	207	
Asset replacement and renewal	1,380	1,439	2,038	
Asset relocations	-	118	127	
Reliability, safety and environment:				
Quality of supply	40	220	245	
Legislative and regulatory	-	-	-	
Other reliability, safety and environment	520	18	20	
Total reliability, safety and environment	560	238	265	
Expenditure on network assets	2,395	2,729	2,917	
Non-network assets	556	545	568	
Expenditure on assets	2,951	3,274	3,485	

Subcomponents of expenditure on assets (where known)

Energy efficiency and demand side			
management, reduction of energy losses			
Overhead to underground conversion	150	380	
Research and development			

	СҮ+3	CY+4	CY+5	СҮ+6	CY+7	CY+8	CY+9	CY+10
	31 Mar 17	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24
	207	210	001	242	256	260	202	206
	245	319	320	343	356	309	385	390
	1 458	1 578	1 642	1 708	1 777	1 849	1 924	2 000
	140	145	151	158	165	170	177	184
	854	524	541	568	615	640	664	688
	-	-	-	-	-	-	-	-
	22	22	22	23	23	24	24	25
	875	546	563	591	638	664	688	713
	3,026	2,904	3,015	3,142	3,291	3,422	3,556	3,693
	289	2 5 2 9	2 216	- 2 1 4 2	- 2 201	- 2 400	- 2 556	- 2 602
	5,515	3,320	3,310	3,142	3,291	3,422	3,550	3,093
	-	-	-	-	-	-	-	-
	273	281	290	299	207	317	326	335
	-	-	-	-	-	-	-	-
	2,753	2,623	2,725	2,843	3,084	3,105	3,230	3,358
	0000	0000	0000	000.4	0044	0105	0.407	0.000
	3029	2868	2926	2984	3044	3105	3,167	3,230
	CV+3	CV+A	CV+5	CV+6	<u>(</u> V+7	CV+8	CV+0	CV+10
	31 Mar 17	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24
	or mar fr	or mai ro	or mai ro	or mar 20	or mar Er	or mar EE	or mar 20	or mar 21
	285	290	295	300	305	310	315	320
	227	287	293	299	305	311	317	323
	1,353	1,435	1,464	1,493	1,523	1,554	1,585	1,615
	130	132	135	138	141	143	146	149
	702	477	100	407	507	E20	547	FFG
	792	477	402	497	527	536	547	000
	20	20	20	20	20	20	20	20
	812	497	502	517	547	558	567	576
	2,807	2,641	2,689	2,747	2,821	2,876	2,930	2,983
	268	568	268					
	3,075	3,209	2,957	2,747	2,821	2,876	2,930	2,983

		Current Year	CY+1	СҮ+2	
	for year ended	31 Mar 14	31 Mar 15	31 Mar 16	
Difference b	petween nominal and constant price forecasts	\$000			
	Consumer connection	-	-	10	
	System growth	-	-	7	
	Asset replacement and renewal	-	-	73	
	Asset relocations	-	-	5	
	Reliability, safety and environment:				
	Quality of supply	-	-	9	
	Legislative and regulatory	-	-	-	
	Other reliability, safety and				
	environment	-	-	1	
	Total reliability, safety and environment	-	-	10	
Ex	penditure on network assets	-	-	105	
	Non-network assets	-	-	20	
Ex	penditure on assets	-	-	125	
11a(ii): Coi	nsumer Connection	Current Year	CY+1	CY+2	
. ,	for year ended	31 Mar 14	31 Mar 15	31 Mar 16	
	Consumer types defined by EDB	\$000 (in consta	nt prices)		
	As requested by customers	255	300	280	
Co	onsumer connection expenditure	255	300	280	
less	Capital contributions funding consumer connection				
Co	onsumer connection less capital contributions	255	300	280	
11a(iii): Sv	stem Growth				
· · · · · · · · · · · · · · · · · · ·	Sub-transmission				
	Zone substations				
	Distribution and LV lines		605	207	
	Distribution and LV cables		29		
	Distribution substations and transformers				
	Distribution switchgear	200			
	Other network assets	200			
Sv	stem growth expenditure	200	634	207	
less	Capital contributions funding system growth	200	001	20.	
Sv	explain contributions and a contributions	200	634	207	
	otom growth lood capital contributions	200	001	201	
11a(iv)· Δs	set Replacement and Renewal				
114(17). AS	Sub-transmission	150	150	150	
	Zone substations	150	150	150	
	Distribution and IV lines	990	700	1.052	
	Distribution and LV apples	000	709	1,000	
	Distribution substations and transformare	150	300	100	
	Distribution substations and italisionners	200	200	200	
	Other network eggete	200		407	
۸	Utilet HetWUK assets	1 000	1 420	0.000	
AS	Capital contributions funding accost rankacoment	1,380	1,439	2,038	
lace	and renewal				
1000	set replacement and renewal less capital contributions	1 280	1 /20	2 036	
AS	האלו האלו האלו האלו האלו האלו האלו האלו	1,300	1,439	2,030	

СҮ+3	CY+4	СҮ+5	СҮ+6	СҮ+7	СҮ+8	СҮ+9	CY+10
31 Mar 17	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24
22	29	36	43	51	59	67	76
18	29	36	43	51	59	68	77
105	143	178	215	254	295	339	385
10	13	16	20	24	27	31	35
62	47	59	71	88	102	117	132
-	-	-	-	-	-	-	-
2	2	2	3	3	4	4	5
63	49	61	74	91	106	121	137
219	263	326	395	470	546	626	710
21	56	33	-	-	-	-	-
240	319	359	395	470	546	626	710
CY+3	CY+4	CY+5					

СҮ+3	CY+4	CY+5
31 Mar 17	31 Mar 18	31 Mar 19
285	290	295
285	290	295
285	290	295

227	287	293
227	287	203
221	201	293
227	287	293

150		
1,003	975	1,144
	65	
200	315	240
	80	80
1,353	1,435	1,464
1,353	1,435	1,464

11a(v):Asset Relocations	Current Year	CY+1	CY+2							
for year ended	31 Mar 14	31 Mar 15	31 Mar 16							
Project or programme	\$000 (in consta	nt prices)								
To be determined		118	127							
		°								
All other asset relocations projects or programmes										
Asset relocations expenditure	-	118	127							
<i>less</i> Capital contributions funding asset relocations										
Asset relocations less capital contributions	-	118	127							
11a(vi):Quality of Supply										
Project or programme										
Power Quality Complaints and Investigations	40	40	40							
Waipawa GXP - Install Distance Pprotection on Takapau 33kV		180								
Waipukurau Sub - Connect RTU onto Fibre Network			170							
Waipawa Sub - Connect RTU onto Fibre Network										
Paget Rd Regulator - Establish Comms and Automation			35							
Automation Projects (33kV and 11kV)										
All other quality of supply projects or programmes	40	000	0.45							
Quality of supply expenditure	40	220	245							
less Capital contributions funding quality of supply	40	000	045							
Quality of supply less capital contributions	40	220	245							
112(viii): Legislative and Regulatory										
Project or programme										
All other legislative and regulatory projects or programmes										
Legislative and regulatory expenditure	_	-	-							
less Capital contributions funding legislative and regulatory										
Legislative and regulatory less capital contributions	-	-	-							
11a(viii): Other Reliability, Safety and Environment										
Project or programme										
Automation Projects (11kV Network)	520									
Waipukurau Substation - Replace 11kV VCB cubicle doors		18								
Yet to be determined			20							
			20							
All other reliability, safety and environment projects										
or programmes										
Other reliability, safety and environment expenditure	520	18	20							
Capital contributions funding other reliability,										
less safety and environment										
Other reliability, safety and environment less	F00									
capital contributions	520	18	20							

СҮ+3	CY+4	CY+5
31 Mar 17	31 Mar 18	31 Mar 19
130	132	135
130	132	135
130	132	135

40	40	40
180		
572	437	442
	1	
792	477	482
792	477	482
132	777	402

1			
Ī			
	-	-	-
	-	-	-

20	20	20
20	20	20
20	20	20

8.2 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.

	Current Year	CY+1	CY+2		
for year ended	31 Mar 14	31 Mar 15	31 Mar 16		
Operational Expenditure Forecast	\$000 (in nominal dollars)				
Service interruptions and emergencies	270	276	286		
Vegetation management	775	791	497		
Routine and corrective maintenance and inspection	202	206	214		
Asset replacement and renewal	1,175	503	522		
Network Opex	2,422	1,776	1,519		
System operations and network support	150	154	165		
Business support	1,131	1,158	1,212		
Non-network opex	1,281	1,312	1,377		
Operational expenditure	3,703	3,088	2,896		

	Current Year	CY+1	СҮ+2	
for year ended	31 Mar 14	31 Mar 15	31 Mar 16	
	\$000 (in consta	int prices)		
Service interruptions and emergencies	270	276	281	
Vegetation management	775	791	488	
Routine and corrective maintenance and inspection	202	206	210	
Asset replacement and renewal	1,175	503	513	
Network Opex	2,422	1,776	1,492	
System operations and network support	150	154	162	
Business support	1,131	1,158	1,191	
Non-network opex	1,281	1,312	1,353	
Operational expenditure	3,703	3,088	2,845	

Subcomponents of operational expenditure (where known)

Energy efficiency and demand side anagement,		
reduction of energy losses		
Direct billing*		
Research and Development		
Insurance		

* Direct billing expenditure by suppliers that direct bill the majority of their consumers

	Current Year	CY+1	CY+2	
for year ended	31 Mar 14	31 Mar 15	31 Mar 16	
Difference between nominal and real forecasts	\$000			
Service interruptions and emergencies	-	-	5	
Vegetation management	-	-	9	
Routine and corrective maintenance and inspection	-	-	4	
Asset replacement and renewal	-	-	9	
Network Opex	-	-	27	
System operations and network support	-	-	3	
Business support	-	-	21	
Non-network opex	-	-	24	
Operational expenditure	-	-	51	

10

СҮ+3	СҮ+4	СҮ+5	СҮ+6	CY+7	СҮ+8	СҮ+9	CY+10
31 Mar 17	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24
304	317	328	342	355	371	385	400
527	549	571	593	618	643	669	696
227	237	246	255	266	277	287	298
554	577	599	624	649	676	703	730
1,612	1,679	1,744	1,814	1,888	1,967	2,044	2,124
171	175	178	182	185	189	193	197
1,261	1,286	1,312	1,338	1,365	1,393	1,420	1,449
1,432	1,461	1,490	1,520	1,551	1,582	1,613	1,646
3,044	3,140	3,235	3,334	3,439	3,549	3,657	3,770

СҮ+3	CY+4	СҮ+5	СҮ+6	CY+7	СҮ+8	СҮ+9	CY+10
31 Mar 17	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24
287	293	298	304	310	317	323	329
498	508	518	528	539	550	561	572
214	219	223	227	232	237	241	245
523	534	544	555	566	578	589	600
1,522	1,554	1,583	1,614	1,647	1,682	1,714	1,746
162	162	162	162	162	162	162	162
1,191	1,191	1,191	1,191	1,191	1,191	1,191	1,191
1,353	1,353	1,353	1,353	1,353	1,353	1,353	1,353
2,875	2,907	2,936	2,967	3,000	3,035	3,067	3,099

СҮ+3	CY+4	СҮ+5	СҮ+6	CY+7	СҮ+8	СҮ+9	CY+10
31 Mar 17	31 Mar 18	31 Mar 19	31 Mar 20	31 Mar 21	31 Mar 22	31 Mar 23	31 Mar 24
17	24	30	38	45	54	62	71
29	41	53	65	79	93	108	124
13	18	23	28	34	40	46	53
31	43	55	69	83	98	114	130
90	125	161	200	241	285	330	378
10	13	16	20	24	27	31	35
70	96	121	148	174	202	229	258
80	109	138	168	198	229	261	293
170	233	299	368	439	514	591	671

8.3 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.

Voltage	Asset category	Asset class	Units
All	Overhead Line	Concrete poles / steel structure	No.
All	Overhead Line	Wood poles	No.
All	Overhead Line	Other pole types	No.
HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km
HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km
HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km
HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km
HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km
HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km
HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km
HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km
HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km
HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km
HV	Subtransmission Cable	Subtransmission submarine cable	km
HV	Zone substation Buildings	Zone substations up to 66kV	No.
HV	Zone substation Buildings	Zone substations 110kV+	No.
HV	Zone substation switchgear	22/33kV CB (Indoor)	No.
HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.
HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.
HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.
HV	Zone substation switchgear	33kV RMU	No.
HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.
HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.
HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.
HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.
HV	Zone Substation Transformer	Zone Substation Transformers	No
HV	Distribution Line	Distribution OH Open Wire Conductor	km
HV	Distribution Line	Distribution OH Aerial Cable Conductor	km
HV	Distribution Line	SWER conductor	km
HV	Distribution Cable	Distribution UG XLPE or PVC	km
HV	Distribution Cable	Distribution UG PILC	km
HV	Distribution Cable	Distribution Submarine Cable	km
HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.
HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.
HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.
HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.
HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.
HV	Distribution Transformer	Pole Mounted Transformer	No.
HV	Distribution Transformer	Ground Mounted Transformer	No.
HV	Distribution Transformer	Voltage regulators	No.
HV	Distribution Substations	Ground Mounted Substation Housing	No.
LV	LV Line	LV OH Conductor	km
LV	LV Cable	LV UG Cable	km
LV	LV Streetlighting	LV OH/UG Streetlight circuit	km
LV	Connections	OH/UG consumer service connections	No.
All	Protection	Protection relays (electromechanical, solid state and numeric)	No.
All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot
All	Capacitor Banks	Capacitors including controls	No.
All	Load Control	Centralised plant	Lot
All	Load Control	Relays	No.
All	Civils	Cable Tunnels	km

Notes on Condition

Grade 1

End of serviceable life, immediate intervention required.

Grade 2

Material deterioration but asset condition still within serviceable life parameters. Intervention likely to be required within 3 years.

Grade 3

Normal deterioration requiring regular monitoring. Grade 4

Good or as new condition.

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

Grade 1	Grade 2	Grade 3	Grade /	Grade	Data accuracy	% of asset forecast to be
				unknown	(1-4)	replaced in next 5 years
3.58%	3.22%	88.48%	4.72%		2	5.00%
5.92%	5.91%	86.69%	1.48%		2	5.00%
					N/A	
-	9.57%	85.11%	5.32%		1	1.00%
					N/A	
-	-	38.72%	61.28%		1	-
					N/A	
					N/A	
					N/A	
					N/A	
					N/A	
					N/A	
					N/A	
					N/A	
-	-	-	100.00%		4	-
					N/A	
					N/A	
-	-	27.27%	72.73%		2	-
					N/A	
-	7.14%	35.71%	57.15%		2	14.00%
					N/A	
					N/A	
					N/A	
-	-	66.67%	33.33%		2	67.00%
-	-	83.33%	16.67%		2	17.00%
-	-	42.86%	57.14%		2	-
4.06%	3.55%	87.90%	4.49%		1	2.00%
					N/A	
					N/A	
-	-	82.45%	17.55%		1	1.00%
-	-	95.94%	4.06%		1	1.00%
					N/A	
-	-	65.31%	34.69%		2	1.00%
					N/A	
0.66%	12.20%	41.25%	45.89%		2	5.00%
					N/A	
-	-	68.00%	32.00%		2	-
4.00%	2.81%	87.27%	5.92%		2	4.00%
0.63%	1.27%	84.81%	13.29%		2	2.00%
-	25.00%	50.00%	25.00%		2	25.00%
					N/A	
7.74%	7.74%	77.42%	7.10%		1	4.00%
0.84%	0.22%	90.43%	8.51%		1	1.00%
0.72%	0.39%	95.85%	3.04%		1	1.00%
-	-	92.76%	7.24%		1	1.00%
-	-	33.33%	66.67%		2	-
			100.00%		3	-
			100.00%		4	-
			100.00%		4	-
		100.00%			3	-
					N/A	

8.4 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.

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)	
Waipukurau	8	18	CBD/Industrial/Residential/Rural	-	44%	22.5	
Waipawa	4	18	CBD/Industrial/Residential/Rural	-	25%	22.5	
Takapau	6	18	CBD/Industrial/Residential/Rural	-	35%	22.5	
OngaOnga	5	12	Rural/Remote Rural	-	43%	15.0	
Wilder Road	1	2.4	Rural/Remote Rural	-	44%	3.0	

12b(ii): Transformer Capacity	
	(MVA)
Distribution transformer capacity (EDB owned)	86
Distribution transformer capacity (Non-EDB owned)	9
Total distribution transformer capacity	95
Zone substation transformer capacity	47

Utilisation of Installed Firm Capacity + 5yrs %	Installed Firm Capacity Constraint +5 years (cause)	Explanation
35%	No constraint within +5 years	
20%	No constraint within +5 years	
28%	No constraint within +5 years	
38%	No constraint within +5 years	
37%	No constraint within +5 years	

8.5 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.

12c(i): Consumer Connections

Number of ICPs connected in year by consumer type

			Current Year	CY+1	
		for year ended	31 Mar 14	31 Mar 15	
	Consumer types defined by EDB		Number of c	connections	
	Small Customers		8,255	8,304	
	Medium Customers		116	117	
	Large Customers		2	2	
C	onnections total		8,373	8,423	

Distributed generation

Number of connections Installed connection capacity of distributed generation (MVA)

12c(ii) System Demand		Current Year	CY+1	
		31 Mar 14	31 Mar 15	
Maximum coincident system demand (MW)	for year ended	Number of c	onnections	
GXP demand		20	20	
plus Distributed generation output at HV and above				
Maximum coincident system demand		20	20	
less Net transfers to (from) other EDBs at HV and above				
Demand on system for supply to consumers' connection points		20	20	
Electricity volumes carried (GWh)				
Electricity supplied from GXPs		114	115	
less Electricity exports to GXPs				
plus Electricity supplied from distributed generation				
less Net electricity supplied to (from) other EDBs				
Electricity entering system for supply to ICPs		114	115	
less Total energy delivered to ICPs		105	106	
Losses		9	9	
Load factor		66%	65%	
Loss ratio		7.9%	7.8%	

CY+2	СҮ+3	СҮ+4	СҮ+5
31 Mar 16	31 Mar 17	31 Mar 18	31 Mar 19
	Number of a	connections	
8,371	8,438	8,502	8,555
118	119	120	121
2	2	2	2
8,491	8,559	8,624	8,678

 	•	

CY+2 CY+3 CY+4 CY+5 31 Mar 16 31 Mar 17 31 Mar 18 31 Mar 19 Vumber of connections Vumber of connections CY+5 20 21 21 21 20 21 21 21 20 21 21 21 20 21 21 21 21 20 21 21 20 21 21 21 21 20 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 21 31 117 118 119 101 108 109 110					
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20 21 21 21 21 20 21 21 21 21 20 21 21 21 21 116 117 118 119 116 117 118 119 107 108 109 110		Number of a	connections		
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1116 1117 118 1119 1116 1117 118 1119 1116 1117 118 1119 107 108 109 110	20	21	21	21	
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116 117 118 119 107 108 109 110	116	117	118	119	
116 117 118 119 107 108 109 110					l
116 117 118 119 107 108 109 110					
116 117 118 119 107 108 109 110					
107 108 109 110	116	117	118	119	
	107	108	109	110	
9 9 9 9	9	9	9	9	
65% 65% 64% 64%	65%	65%	64%	64%	
7.8% 7.7% 7.6% 7.6%	7.8%	7.7%	7.6%	7.6%	

8.6 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.

	Current Year	CY+1	СҮ+2	СҮ+3	CY+4	CY+5
for year ended	31 Mar 14	31 Mar 15	31 Mar 16	31 Mar 17	31 Mar 18	31 Mar 19
SAIDI						
Class B (planned interruptions on the network)	75.8	67.1	67.1	67.1	67.1	67.1
Class C (unplanned interruptions on the network)	80.4	130.4	130.4	130.4	130.4	130.4
SAIFI						
Class B (planned interruptions on the network)	0.37	1.21	1.21	1.21	1.21	1.21
Class C (unplanned interruptions on the network)	2.78	3.01	3.01	3.01	3.01	3.01

Glossary of Terms

ABS	Air Break Switch
AC	Alternating Current
ACSR	Aluminium Conductor Steel Reinforced
AMP	Asset Management Plan
CAD	Computer Aided Drafting
CAIDI	Customer Average Interruption Duration
	Index
CAPEX	Capital Expenditure
СВ	Circuit Breaker
CBD	Central Business District
CDEM	Civil Defence Emergency Management
CEO	Chief Executive Officer
CHBPCT	Central Hawkes Bay Power Consumers'
	Trust
СТ	Current Transformer
DC	Direct Current
DG	Distributed Generation
DGA	Dissolved Gas Analysis
DR	Disaster Recovery
DRC	Depreciated Replacement Cost
ECANZ	Electrical Contractors Association of New
	Zealand
EDRMS	Electronic Document and Records
	Management System
EDB	Electricity Distribution Business
	(same as below)
ELB	Electricity Lines Business
GDP	Gross Domestic Product
GIS	Geo-spatial Information System
GM	General Manager
GMI	Ground Mount Inspection
GPS	Global Positioning System
GWh	Giga Watt-hours
GXP	Grid Exit Point
HDPE	High Density Polyethylene
НВ	Hawke's Bay
HR	Human Resources
HV	High Voltage
ICP	Installation Control Point
IS	Information System/s
kV	Kilo Volts
kVA	Kilo Volt Amps
LCP	Legislative Compliance Programme
LV	Low Voltage
MD	Maximum Demand
MDPE	Medium Density Polyethylene

MEUG	Major Electricity Users Group
MIND	Mineral Insulated Non Draining
MVA	Mega Volt-Amps
NIF	Network Investment Framework
NRIM	Network Renewal Investment Model
ODRC	Optimised Deprival Replacement Cost
ODV	Optimised Deprival Value
ОН	Overhead
OHUG	Overhead to Underground Conversion
OPEX	Operational Expenditure
PC	Personal Computer
PDA	Personal Digital Assistant
PI	Plant Information
PILC	Paper Insulated, Lead Covered
PLC	Programmable Logic Controller
POS	Point of Supply
PR	Public Relations
PVC	Polyvinyl Chloride
RC	Replacement Cost
RCS	Remote Controlled Switch
RLE	Residual Life Expectancy
RMA	Resource Management Act
RMS	Ring Main Switch
RMU	Ring Main Unit
	(same as Ring Main Switch)
RTU	Remote Terminal Unit
SAIFI	System Average Interruption Frequency
	Index
SAIDI	System Average Interruption Duration Index
SAN	Storage Area Network
SCADA	Supervisory Control and Data Acquisition
SCI	Statement of Corporate Intent
SF ₆	Sulphur Hexaflouride (gas)
SLT	Service Level Target
Sys Op	System Operator
SWER	Single Wire Earth Return
UG	Underground
UHF	Ultra High Frequency
V	Volts
VAr	Volt Amps Reactive
VHF	Very High Frequency
VT	Voltage Transformer
WASP	Works, Assets, Sceduling and People
	(Software package)
XLPE	Cross Linked Polyethylene
ZS	Zone Substation



CERTIFICATION FOR YEAR-BEGINNING DISCLOSURES

Pursuant to Schedule 17

We, Samuel Robinson and Jon Nichols, being directors of Centralines Limited certify that, having made all reasonable enquiry, to the best of our knowledge-

- a) the following attached information of Centralines Limited prepared for the purposes of clause 2.4.1, clause 2.6.1 and subclauses 2.6.3(4) and 2.6.5(3) 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.

Director

Date:

21/3/2014

Director

Date: 21/3/14

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