

Nelson Electricity Limited

DEFAULT PRICE QUALITY PATH COMPLIANCE STATEMENT

FOR THE ASSESSMENT DATE 31 MARCH 2016

*Pursuant to the Electricity Distribution Services Default Price-Quality
Path Determination 2015*

10 June 2016

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1) Compliance with the Price Path (Clause 11.2(a))

Nelson Electricity Limited does comply with the price path at the assessment date, 31 March 2016, as specified in the *Electricity Distribution Services Default Price-Quality Path Determination 2015*.

Clause 8.3 - The notional revenue of a Non-exempt EDB in an Assessment Period must not exceed the allowable notional revenue for the Assessment Period.

Compliance is demonstrated in the following table. The table demonstrates that notional revenue derived using posted prices during the Assessment Period is less than the allowable notional revenue.

Test:	$\frac{NR_{2016}}{ANR_{2016}} \leq 1$
NR ₂₀₁₆ :	\$ 6,676,473
ANR ₂₀₁₆ :	\$ 6,741,085
Result:	0.9904 < 1
Result:	Price Path has not been breached

Supporting evidence as per **Clause 11.4** is presented in Appendices as follows:

- Clause 11.4(a) Not required due to complying with Clause 11.2(a)
- Clause 11.4(b) Not required due to complying with Clause 11.2(a)
- Clause 11.4(c) Appendix A - Price Path Calculation
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- Clause 11.4(h) No new investment contracts entered into during the year
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- Clause 11.4(k) Not required for this Assessment Period

2) Compliance with the Quality Standards (Clause 11.2(a))

Nelson Electricity Limited does comply with all requirements of the quality standards at the assessment date, 31 March 2016, as specified in the *Electricity Distribution Services Default Price-Quality Path Determination 2015*.

Clause 9.2(a) - A Non-exempt EDB's SAIDI Assessed Value for the Assessment Period must not exceed the SAIDI Limit specified in Schedule 4A.

Supporting evidence is presented in Appendices D and E.

Test:	$\frac{SAIDI_{Assess\ 2016}}{SAIDI_{Limit}} \leq 1$
SAIDI _{Assess 2016}	5.76
SAIDI _{Limit}	22.23
Result:	0.2591 < 1
Result:	SAIDI Limit has not been breached

Clause 9.2(b) - A Non-exempt EDB's SAIFI Assessed Value for the Assessment Period must not exceed the SAIFI Limit specified in Schedule 4A.

Test:	$\frac{SAIFI_{Assess\ 2016}}{SAIFI_{Limit}} \leq 1$
SAIFI _{Assess 2016}	0.079
SAIFI _{Limit}	0.241
Result:	0.3297 < 1
Result:	SAIFI Limit has not been breached

Supporting evidence as per **Clause 11.4** is presented in Appendices as follows:

- Clause 11.5(a) Not required due to complying with Clause 11.2(a)
- Clause 11.5(b) Not required due to complying with Clause 11.2(a)
- Clause 11.5(c) Appendix G – SAIDI and SAIFI Calculations
- Clause 11.5(d) Not required
- Clause 11.5(e) Appendix H – Policies and Procedures for Recording SAIDI and SAIFI
- Clause 11.5(f) Appendix I – Major Event Day Causes

3) Director Certification (Clause 11.3(a))

I, Paul Donald LeGros, being director of Nelson Electricity Limited certify that, having made all reasonable enquiry, to the best of my knowledge and belief, the attached Annual Compliance Statement of Nelson Electricity Limited, and related information, prepared for the purposes of the *Electricity Distribution Services Default Price-Quality Path Determination 2015* are true and accurate.



10 June 2016

**INDEPENDENT ASSURANCE REPORT
TO THE DIRECTORS OF NELSON ELECTRICITY LIMITED AND TO THE COMMERCE COMMISSION**

The Auditor-General is the auditor of Nelson Electricity Limited (the company). The Auditor-General has appointed me, Paul Bryden, using the staff and resources of Deloitte, to provide an opinion, on her behalf, on whether the Annual Compliance Statement for the year ended on 31 March 2016 on pages 1 to 2 and 6 to 20 have been prepared, in all material respects, with the Electricity Distribution Services Default Price-Quality Path Determination 2015 (the Determination).

Directors' responsibilities for the Annual Compliance Statement

The directors of the company are responsible for the preparation of the Annual Compliance Statement in accordance with the Determination, and for such internal control as the directors determine is necessary to enable the preparation of an Annual Compliance Statement that is free from material misstatement.

Our responsibility for the Annual Compliance Statement

Our responsibility is to express an opinion on whether the Annual Compliance Statement has been prepared, in all material respects, in accordance with the Determination.

Basis of opinion

We conducted our engagement in accordance with the International Standard on Assurance Engagements (New Zealand) 3000 (Revised): *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* issued by the External Reporting Board and the Standard on Assurance Engagements 3100: *Compliance Engagements* issued by the External Reporting Board. Copies of these standards are available on the External Reporting Board's website.

These standards require that we comply with ethical requirements and plan and perform our assurance engagement to provide reasonable assurance about whether the Annual Compliance Statement has been prepared in all material respects in accordance with the Determination.

We have performed procedures to obtain evidence about the amounts and disclosures in the Annual Compliance Statement. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the Annual Compliance Statement, whether due to fraud or error or non-compliance with the Determination. In making those risk assessments, we considered internal control relevant to the company's preparation of the Annual Compliance Statement in order to design procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the company's internal control.

In assessing the disclosures about compliance with the price path in clause 8 of the Determination for the assessment period ended on 31 March 2016, our assurance engagement included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 1 and 6 to 12 of the Annual Compliance Statement.

In assessing the disclosures about compliance with the quality standards in clause 9 of the Determination for the assessment period ended 31 March 2016, our assurance engagement included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 2 and 13 to 20 of the Annual Compliance Statement.

Our assurance engagement also included assessment of the significant estimates and judgements, if any, made by the company in the preparation of the Annual Compliance Statement.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Use of this report

This independent assurance report has been prepared solely for the directors of the company and for the Commerce Commission for the purpose of providing those parties with reasonable assurance about whether the Annual Compliance Statement has been prepared, in all material respects, in accordance with the Determination. We disclaim any assumption of responsibility for any reliance on this report to any

person other than the directors of the company or the Commerce Commission, or for any other purpose than that for which it was prepared.

Scope and inherent limitations

Because of the inherent limitations of a reasonable assurance engagement, and the test basis of the procedures performed, it is possible that fraud, error or non-compliance may occur and not be detected.

We did not examine every transaction, adjustment or event underlying the Annual Compliance Statement nor do we guarantee complete accuracy of the Annual Compliance Statement. Also we did not evaluate the security and controls over the electronic publication of the Annual Compliance Statement.

The opinion expressed in this independent assurance report has been formed on the above basis.

Independence and quality control

When carrying out the engagement, we complied with the Auditor-General's:

- independence and other ethical requirements, which incorporate the independence and ethical requirements of Professional and Ethical Standard 1 (Revised) issued by the New Zealand Auditing and Assurance Standards Board; and
- quality control requirements, which incorporate the quality control requirements of Professional and Ethical Standard 3 (Amended) issued by the New Zealand Auditing and Assurance Standards Board.

We also complied with the independent auditor requirements specified in the Determination.

The Auditor-General, and her employees, and Deloitte and its partners and employees may deal with the company on normal terms within the ordinary course of trading activities of the company. Other than any dealings on normal terms within the ordinary course of business, this engagement and the annual audit of the company's financial statements, we have no relationship with or interests in the company.

Opinion

In our opinion:

- As far as appears from an examination, the information used in the preparation of the Annual Compliance statement has been properly extracted from the company's accounting and other records, and has been sourced, where appropriate, from its financial and non-financial systems; and
- The Annual Compliance Statement of Nelson Electricity Limited for the year ended on 31 March 2016, has been prepared, in all material respects, in accordance with the Determination.

In forming our opinion, we have obtained sufficient recorded evidence and all the information and explanations we have required.



Paul Bryden
Deloitte
On behalf of the Auditor-General
Christchurch, New Zealand
10 June 2016

Appendix A – Price Path Compliance Calculation (Clause 11.4(c))

Price Path Inputs and Calculations for the Assessment Date 31 March 2016

Clause 8.4

Allowable Notional Revenue 31 March 2016		
Term	Description	Value \$
<i>ANR₂₀₁₆</i>	Allowable Notional Revenue for year ending 31 March 2016	6,741,085

Clause 8.5

Notional Revenue for the year ending March 2016		
Term	Description	Value \$
<i>DP₂₀₁₆ * Q₂₀₁₄</i>	Distribution Prices at 31 March 2016 multiplied by 31 March 2014 Base Quantities	6,676,473
<i>NR₂₀₁₆</i>	Notional Revenue for the year ending 31 March 2016	6,676,473

Supported by P*Q
schedules presented in
Appendix B

Appendix B – Distribution Price and Quantity Schedule (Clause 11.4(c))

Distribution Price Revenue Table using 31 March 2016 Prices and 2013/2014 Quantities

Number of Days:		365										
Tariff or Fee	Number of ICs at 31/03/2014 From Registry	Billed kWh at 31/3/2014	Billed kVA at 31/3/2014	Billed Days at 31/3/2014	Distribution Charges			Notional Distribution Revenue (\$)		Total Revenue (\$) P ₂₀₁₆ Q ₂₀₁₄		
					Fixed		Variable (c/kWh)	Fixed	Variable			
					\$/day	c/kVA/day					Other	
Group 0												
Streetlights	1	1,445,483		365	220.340	0.000	0.000	0.000	80,424	-	80,424	
Unmetered Fixed	30			11,199	0.059	0.000	0.000	0.000	661	-	661	
Unmetered Capacity			181,0528		0.000	58.740	0.000	0.000	106	-	106	
Builders Temp	6			4,967	0.593	0.000	0.000	0.000	2,945	-	2,945	
BT-kWh		11,816			0.000	0.000	0.000	6.230	-	736	736	
Group 1												
Fixed	2564		12,522,677		0.000	0.990	0.000	0.000	123,975	-	123,975	
Anytime		7,970,866			0.000	0.000	0.000	6.230	-	496,585	496,585	
Controlled		3,875,981			0.000	0.000	0.000	3.760	-	145,737	145,737	
Nightrate		336,219			0.000	0.000	0.000	2.470	-	8,305	8,305	
DG					0.000	0.000	0.000	0.500	-	-	-	
Group 2												
Fixed	6471		47,940,215		0.000	5.930	0.000	0.000	2,842,855	-	2,842,855	
Anytime		56,146,090			0.000	0.000	0.000	2.180	-	1,223,985	1,223,985	
Controlled		12,219,913			0.000	0.000	0.000	1.380	-	168,635	168,635	
Nightrate		1,368,530			0.000	0.000	0.000	1.090	-	14,917	14,917	
DG					0.000	0.000	0.000	0.500	-	-	-	
Time of Use												
Metered Installation Charge	92			33,762	1.187	0.000	0.000	0.000	40,075	-	40,075	
Energy		40,540,570			0.000	0.000	0.000	0.200	-	81,081	81,081	
Winter Demand			4,619,539		0.000	12.170	0.000	0.000	562,198	-	562,198	
Capacity Supply (Sum of kVA)			11,501,752		0.000	4.945	0.000	0.000	568,762	-	568,762	
Power Factor (kVAr)			8,135		0.000	0.000	6.500	0.000	52,878	-	52,878	
DG					0.000	0.000	0.000	0.000	-	-	-	
TOU Sealord												
Fixed	1	14,326,780			0.000	0.000	194,356.903	0.000	194,357	-	194,357	
Power Factor (kVAr)			197		0.000	0.000	6.500	0.000	1,280	-	1,280	
					0.000	0.000	0.000	0.000	-	-	-	
Direct Connection												
Energy		3,926,239			0.000	0.000	0.000	0.200	-	7,852	7,852	
Installation	1			365	1.187	0.000	0.000	0.000	433	-	433	
Winter Demand			239,184		0.000	12.170	0.000	0.000	29,109	-	29,109	
Capacity Supplied			578,000		0.000	4.945	0.000	0.000	28,582	-	28,582	
Power Factor (kVAr)			-		0.000	0.000	6.500	0.000	-	-	-	
Transpower Cold Storage					0.000	0.000	0.000	0.000	-	-	-	
Transpower NMDHB					0.000	0.000	0.000	0.000	-	-	-	
DG					0.000	0.000	0.000	0.000	-	-	-	
Σ P₂₀₁₆ Q₂₀₁₄	9,166	142,168,467									6,676,473	

Appendix D – Pass Through Balance Assessment (Clause 11.4(e))

Nelson Electricity - Pass Through Balance for Year Ending 31 March 2016		
Actual Assessed 2016 Pass Through Price X 2016 Quantity		\$3,551,257
less		
Pass Through Costs		
	Local Authority Rates	\$29,548
	Electricity Authority Levies	\$45,240
	Commerce Commission Levies	\$13,671
	Electricity and Gas Complaints Commissioner Scheme	\$3,934
		\$92,394
Recoverable Costs		
	Transmission	\$3,386,186
Schedule 5A	Energy Efficiency	\$0
Schedule 5B	Quality Incentive Adjustment	\$0
Schedule 5C	Claw Back	\$0
Schedule 5D	2013 - 2015 NPV Washup	\$0
Schedule 5E	Avoided transmission costs	\$0
Schedule 5F	Transmission Asset Wash-up Adj	\$0
Schedule 5G	Opex and Capex Incentive	\$0
Schedule 5H	Extended Reserve Allowance	\$0
		\$3,386,186
Total		\$3,478,580
plus		
Previous Pass Through Balance x cost of debt		\$0
Pass Through Balance as at 31 March 2016		\$72,678
<i>Demonstration of recovery of Pass-through Costs and Recoverable Costs</i>		
8.8 In respect of each Assessment Period –		
(a) every Non-exempt EDB must calculate a Pass-through Balance in accordance with the formula –		
$PTB_t = \sum PTP_{t-1} Q_{t-1} - K_t - V_t - PTB_{t-1}(1+r)$		
where:		
t	is the year in which the Assessment Period ends;	
i	denotes each Pass-through Price;	
PTB _t	is the Pass-through Balance for the Assessment Period t;	
PTB _{t-1}	is –	
(a)	nil in the first Assessment Period in which a Non-exempt EDB must calculate a Pass-through Balance, and	
(b)	in all other Assessment Periods the Pass-through Balance for the Assessment Period prior to year t, as calculated using any additional information available at the end of Assessment Period t;	
PTP _{t-1}	is the i th Pass-through Price during any part of the Assessment Period t;	
Q _{t-1}	is the Quantity for the Assessment Period t corresponding to the i th Pass-through Price;	
K _t	is the sum of all Pass-through Costs that apply to the Assessment Period t;	
V _t	is the sum of all Recoverable Costs that apply to the Assessment Period t; and	
r	is the Cost of Debt; and	
(b)	the Pass-through Prices for the Assessment Period include:	
(i)	a demonstrably reasonable forecast of Pass-through Costs and Recoverable Costs that apply to the Assessment Period in accordance with Schedule 5; and	
(ii)	all or any portion of any over- or under-recovery of Pass-through Costs or Recoverable Costs from a prior Assessment Period, adjusted for the Cost of Debt, as reflected in the most recently calculated Pass-through Balance at the time the Non-exempt EDB sets Prices.	

Appendix E – Pass Through Price and Quantity Schedules (Clause 11.4(f) and (g))

Recoverable Cost Recovery - Price Revenue Table using 31 March 2016 Prices and 2015/2016 Quantities

Tariff or Fee	Number of Days: 366				Distribution Charges				Notional Distribution Revenue (\$)		Total Revenue (\$)
	Number of ICPs at 31/03/2016 From Registry	Billed kWh at 31/3/2016	Billed kVA at 31/3/2016	Billed Days at 31/3/2016	Fixed			Variable (c/kWh)	Fixed	Variable	
					\$/day	c/kVA/day	Other				
Group 0											
Streetlights	1	1,159,348	-	366	62.120	0.000	0.000	0.000	22,736	-	22,736
Unmetered Fixed	33	-	-	10,532	0.000	0.000	0.000	0.000	-	-	-
Unmetered Capacity	0	-	4,490	-	0.000	50.630	0.000	0.000	2,274	-	2,274
Builders Temp	16	-	-	5,926	0.000	0.000	0.000	0.000	-	-	-
BT-kWh	0	36,422	-	-	0.000	0.000	0.000	2.900	-	1,056	1,056
Group 1	0	-	-	-	-	-	-	-	-	-	-
Fixed	3466	-	16,508,310	-	0.000	0.000	0.000	0.000	-	-	-
Anytime	0	11,277,356	-	-	0.000	0.000	0.000	2.900	-	327,043	327,043
Controlled	0	5,170,613	-	-	0.000	0.000	0.000	1.700	-	87,900	87,900
Nightrate	0	460,492	-	-	0.000	0.000	0.000	1.000	-	4,605	4,605
DG	0	84,660	-	-	0.000	0.000	0.000	0.000	-	-	-
Group 2	0	-	-	-	-	-	-	-	-	-	-
Fixed	5589	-	43,811,839	-	0.000	0.000	0.000	0.000	-	-	-
Anytime	0	53,534,373	-	-	0.000	0.000	0.000	2.900	-	1,552,497	1,552,497
Controlled	0	10,398,308	-	-	0.000	0.000	0.000	1.700	-	176,771	176,771
Nightrate	0	1,197,479	-	-	0.000	0.000	0.000	1.000	-	11,975	11,975
DG	0	144,433	-	-	0.000	0.000	0.000	0.000	-	-	-
Time of Use	0	-	-	-	-	-	-	-	-	-	-
Metered Installation Charge	91	-	-	32,940	0.000	0.000	0.000	0.000	-	-	-
Energy	0	34,076,873	-	-	0.000	0.000	0.000	1.400	-	477,076	477,076
Winter Demand	0	-	3,907,233	-	0.000	10.000	0.000	0.000	390,723	-	390,723
Capacity Supply (Sum of kVA)	0	-	10,197,858	-	0.000	0.000	0.000	0.000	-	-	-
Power Factor	0	-	7,951	-	0.000	0.000	0.000	0.000	-	-	-
DG	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
TOU Sealord	0	-	-	-	-	-	-	-	-	-	-
Fixed	1	13,707,565	-	-	0.000	0.000	269,831.873	0.000	269,832	-	269,832
Power Factor	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
	0	-	-	-	-	-	-	-	-	-	-
Direct Connection	0	-	-	-	-	-	-	-	-	-	-
Energy	0	9,305,849	-	-	0.000	0.000	0.000	0.000	-	-	-
Installation	2	-	-	732	0.000	0.000	0.000	0.000	-	-	-
Winter Demand	0	-	658,983	-	0.000	0.000	0.000	0.000	-	-	-
Capacity Supplied	0	-	1,427,400	-	0.000	0.000	0.000	0.000	-	-	-
Power Factor	0	-	450	-	0.000	0.000	0.000	0.000	-	-	-
Transpower Cold Storage	0	-	-	-	0.000	0.000	42,180.240	0.000	42,180	-	42,180
Transpower NMDHB	0	-	-	-	0.000	0.000	110,889.239	0.000	110,889	-	110,889
DG	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
Σ P₂₀₁₆ Q₂₀₁₆	9,199	140,324,679									3,477,558

Pass-Through Cost Recovery - Revenue Table using 31 March 2016 Prices and 2015/2016 Quantities

Number of Days:		366									
Tariff or Fee	Number of ICPS at 31/03/2016 From Registry	Billed kWh at 31/3/2016	Billed kVA at 31/3/2016	Billed Days at 31/3/2016	Distribution Charges			Notional Distribution Revenue (\$)		Total Revenue (\$) P ₂₀₁₆ Q ₂₀₁₄	
					Fixed		Variable (c/kWh)	Fixed	Variable		
					\$/day	c/kVA/day					Other
Group 0											
Streetlights	1	1,159,348	-	366	2,545	0.000	0.000	0.000	931	-	931
Unmetered Fixed	33	-	-	10,532	0.001	0.000	0.000	0.000	11	-	11
Unmetered Capacity	0	-	4,490	-	0.000	0.630	0.000	0.000	28	-	28
Builders Temp	16	-	-	5,926	0.007	0.000	0.000	0.000	41	-	41
BT-kWh	0	36,422	-	-	0.000	0.000	0.000	0.071	-	26	26
Group 1											
Fixed	3466	-	16,508,310	-	0.000	0.011	0.000	0.000	1,816	-	1,816
Anytime	0	11,277,356	-	-	0.000	0.000	0.000	0.070	-	7,894	7,894
Controlled	0	5,170,613	-	-	0.000	0.000	0.000	0.043	-	2,223	2,223
Nightrate	0	460,492	-	-	0.000	0.000	0.000	0.030	-	138	138
DG	0	84,660	-	-	0.000	0.000	0.000	0.000	-	-	-
Group 2											
Fixed	5589	-	43,611,839	-	0.000	0.066	0.000	0.000	28,916	-	28,916
Anytime	0	53,534,373	-	-	0.000	0.000	0.000	0.025	-	13,384	13,384
Controlled	0	10,398,308	-	-	0.000	0.000	0.000	0.016	-	1,664	1,664
Nightrate	0	1,197,479	-	-	0.000	0.000	0.000	0.014	-	168	168
DG	0	144,433	-	-	0.000	0.000	0.000	0.000	-	-	-
Time of Use											
Metered installation Charge	91	-	-	32,940	0.013	0.000	0.000	0.000	428	-	428
Energy	0	34,076,873	-	-	0.000	0.000	0.000	0.003	-	1,022	1,022
Winter Demand	0	-	3,907,233	-	0.000	0.135	0.000	0.000	5,275	-	5,275
Capacity Supply (Sum of kVA)	0	-	10,197,858	-	0.000	0.055	0.000	0.000	5,609	-	5,609
Power Factor	0	-	7,951	-	0.000	0.000	0.000	0.000	-	-	-
DG	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
TOU Sealord											
Fixed	1	13,707,565	-	-	0.000	0.000	2,161,704	0.000	2,162	-	2,162
Power Factor	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
DG	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
Direct Connection											
Energy	0	9,305,849	-	-	0.000	0.000	0.000	0.003	-	279	279
Installation	2	-	-	732	0.013	0.000	0.000	0.000	10	-	10
Winter Demand	0	-	658,983	-	0.000	0.135	0.000	0.000	890	-	890
Capacity Supplied	0	-	1,427,400	-	0.000	0.055	0.000	0.000	785	-	785
Power Factor	0	-	450	-	0.000	0.000	0.000	0.000	-	-	-
Transpower Cold Storage	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
Transpower NMDHB	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
DG	0	-	-	-	0.000	0.000	0.000	0.000	-	-	-
Σ P₂₀₁₆ Q₂₀₁₄	9,199	140,324,679									73,699



Appendix F – Pass-Through Differences (Clause 11.4(j))

Pass Through and Recoverable Costs for the Assessment Date 31 March 2016

Pass Through and Recoverable Costs for year ending March 2016				
K 2016 and V 2016	Actual (\$)	Forecast (\$)	Variance (\$)	Variance (%)
Transmission	3,386,186	3,381,814	4,372	.13%
Rates	29,548	27,642	1,906	6.45%
Electricity Authority Levies	45,240	30,416	14,824	32.77%
Commerce Act Levies	13,671	15,590	(1,919)	(14.04)%
EGCC	3,934	3,870	64	1.63%
Total Pass Through and Recoverable Costs	3,478,580	3,459,332	19,248	.55%

Explanation:

The table above represents the variances between the forecast Pass-Through and Recoverable Costs versus the Actual Costs for the year ending 31 March 2016.

The key variance was in the Electricity Authority Levies where actual costs were 32.77% higher than forecast. The key reason for this was due to how the Electricity Authority levies are applied to Electricity Industry Participants. The Electricity Authority levy Nelson Electricity for “Common Quality” and “Other Activities” based on the total MWh transmitted through four 33kV sub transmission feeders of which Nelson Electricity own one feeder and the other three feeders overhead sections are owned by Network Tasman. Network Tasman as part of the agreement with Nelson Electricity also pass through all costs associated with the three sub transmission feeders they own and of which Nelson Electricity has sole use of. This includes the Electricity Authority levies for the volume transmitted through those lines. In effect Nelson Electricity is paying twice for “Common Quality” and “Other Activities” for the volume transmitted through the Network Tasman owned sub transmission feeders. This equates to \$12,519 in additional levies, the forecast excluded this additional cost.

The other variances are within acceptable limits.

Appendix G – Quality Standard Compliance Calculations (Clause 11.5(c))

1. The SAIDI Limits and SAIFI Limits, and SAIDI Unplanned Boundary Values and SAIFI Unplanned Boundary Values, for each Non-exempt EDB for the Regulatory Period 1 April 2015 to 31 March 2020, subject to Schedule 4B, are as set out in Table 4A.1.

Table 4A.1: SAIDI Limits, SAIFI Limits, SAIDI Unplanned Boundary Values, and SAIFI Unplanned Boundary Values for the Regulatory Period 1 April 2015 – 31 March 2020

Non-exempt EDB	SAIDI Limit	SAIDI Unplanned Boundary Value	SAIFI Limit	SAIFI Unplanned Boundary Value
Nelson Electricity Limited	22.230	2.699	0.241	0.033

2. The SAIDI Target, SAIDI Collar, and SAIDI Cap for each Non-exempt EDB during the Regulatory Period 1 April 2015 to 31 March 2020, subject to Schedule 4B, are as set out in Table 5B.1.

Table 5B.1: SAIDI quality incentive measures for the Regulatory Period 1 April 2015 – 31 March 2020

Non-exempt EDB	SAIDI Target	SAIDI Collar	SAIDI Cap
Nelson Electricity Limited	16.2056	10.1810	22.2302

3. SAIDI Calculation

Clause 9.2a A Non-exempt EDB's SAIDI Assessed Value for the Assessment Period must not exceed the SAIDI Limit specified in Schedule 4A

Test:	$\frac{SAIDI_{Assess\ 2016}}{SAIDI_{Limit}} \leq 1$
SAIDI _{Assess 2016}	$= (0.5 \times SAIDI_b) + SAIDI_c$ $= 0.28 + 5.48$ $= 5.76$
SAIDI _{Limit}	$= 22.23$
Result:	0.2591
Result:	SAIDI Limit has not been breached

3. SAIFI Calculation

Clause 9.2b a Non-exempt EDB's SAIFI Assessed Value for the Assessment Period must not exceed the SAIFI Limit specified in Schedule 4A

Test:	$\frac{SAIFI_{Assess\ 2016}}{SAIFI_{Limit}} \leq 1$
SAIFI _{Assess 2016}	$= (0.5 \times SAIFI_b) + SAIFI_c$ $= 0.001 + 0.079$ $= 0.080$
SAIFI _{Limit}	$= 0.241$
Result:	0.3299
Result:	SAIFI Limit has not been breached

4. Annual Reliability for Two Previous Assessment Periods

Reliability Assessment for 31 March 2015

**Commerce Act
(Electricity Distribution Services Default Price-Quality Path)
Determination 2012
Assessment Against the Quality Standards
for the Assessment Date 31 March 2015**

Clause 9.2 A Non-exempt EDB's Assessed Values for an Assessment Period must not exceed its Reliability Limits for that Assessment Period, such that:

Test:	$\frac{SAIDI_{Assess\ 2015}}{SAIDI_{Limit}} \leq 1$
SAIDI _{Assess 2015}	19 940
SAIDI _{Limit}	71 536
Result:	0.2787 < 1
Result:	SAIDI Limit has not been breached

Test:	$\frac{SAIFI_{Assess\ 2015}}{SAIFI_{Limit}} \leq 1$
SAIFI _{Assess 2015}	1.570
SAIFI _{Limit}	1.126
Result:	1.3948 > 1
Result:	SAIFI Limit has been breached

Reliability Assessment for 31 March 2014

**Commerce Act
(Electricity Distribution Services Default Price-Quality Path)
Determination 2012
Assessment Against the Quality Standards
for the Assessment Date 31 March 2014**

Clause 9.2 A Non-exempt EDB's Assessed Values for an Assessment Period must not exceed its Reliability Limits for that Assessment Period, such that:

Test:	$\frac{SAIDI_{Assess\ 2014}}{SAIDI_{Limit}} \leq 1$
SAIDI _{Assess 2014}	22 380
SAIDI _{Limit}	71 536
Result:	0.3128 < 1
Result:	SAIDI Limit has not been breached

Test:	$\frac{SAIFI_{Assess\ 2014}}{SAIFI_{Limit}} \leq 1$
SAIFI _{Assess 2014}	0.500
SAIFI _{Limit}	1.126
Result:	0.4442 < 1
Result:	SAIFI Limit has not been breached

Appendix H – Policies and Procedures for Recording SAIDI and SAIFI (Clause 11.5(e))

Nelson Electricity Limited follows the procedure “NEL Network System Outage Statistics” to record SAIDI and SAIFI statistics. The procedure covers the collection of customer numbers, the assessments required to assess the numbers of customers affected, the times outages occur and where the data is to be stored.

Wherever possible outage times are collected from an accurate electronic source, the SCADA being the preferred source, other sources are from phone records from the Nelson Electricity call centre, fault forms received from the Nelson Electricity fault contractor or referring to written switching instructions.

Calculations of customer minutes are prepared on the switching record for each individual outage based on switching times and ICP records. The customer minutes for each event are then added to the SAIDI/SAIFI Spreadsheet which summarises all events for the year and is used to calculate the annual SAIDI and SAIFI. The numbers of outages on the Nelson Electricity network are low compared to other Electricity Line Companies and so it is a relatively easy task to manage these data requirements. A hard copy summary of each outage is held on file.

NEL Network System Outage Statistics Procedure

Background:

Nelson Electricity has to collect and record accurate information regarding all transmission, sub-transmission and 11kV outages. The methods and information used has to be robust as the information is used in the disclosure of both SAIDI and SAIFI statistics as part of the Quality Threshold disclosure.

Purpose:

To ensure all information used in the outage statistic information is as accurate as possible. Evidence of outage times and consumer numbers must also be collected.

Scope:

Applies to all outages both planned and unplanned regarding transmission, sub-transmission and 11kV.

Procedure:

The Asset Manager is responsible for the collection, assessment and reporting of all network outage statistics. The information used in the assessments can be from many sources:

- ICP Database
- New Connections
- SCADA system
- Fault forms
- Call Care (fault call reports)
- Control room switching instructions

These sources of information are all valid and defensible sources of information.

ICP Database and New Connections:

The ICP Database and New Connections are updated as ICPs are added and removed from the network. The Business Systems Administrator ensures that these databases are maintained and accurate.

SCADA System:

The SCADA System installed in 2004 has a detailed reporting function. All reports are time stamped. This gives accurate timings of any 33kV or 11kV feeder outages and restoration times.

Fault Forms:

Fault forms provided by the NEL fault provider contain times of fault and restoration times recorded from the contractors who were working on the fault. This source of information is used if there are no other sources.

Call Care:

All fault calls are initially answered by the NEL answer phone service provided by Call Care. All calls are logged and time stamped and all faults reported to NEL the next day. This source of information is used as NEL receives calls as soon as an outage occurs.

Control Room Switching Instructions:

The switching instructions are a valuable source of information. This is used mainly for the restoration times especially when backfeeding areas in the restoration phase.

The Asset Manager uses all these sources to evaluate the outage statistics in the SAIDI Stats Spreadsheet.

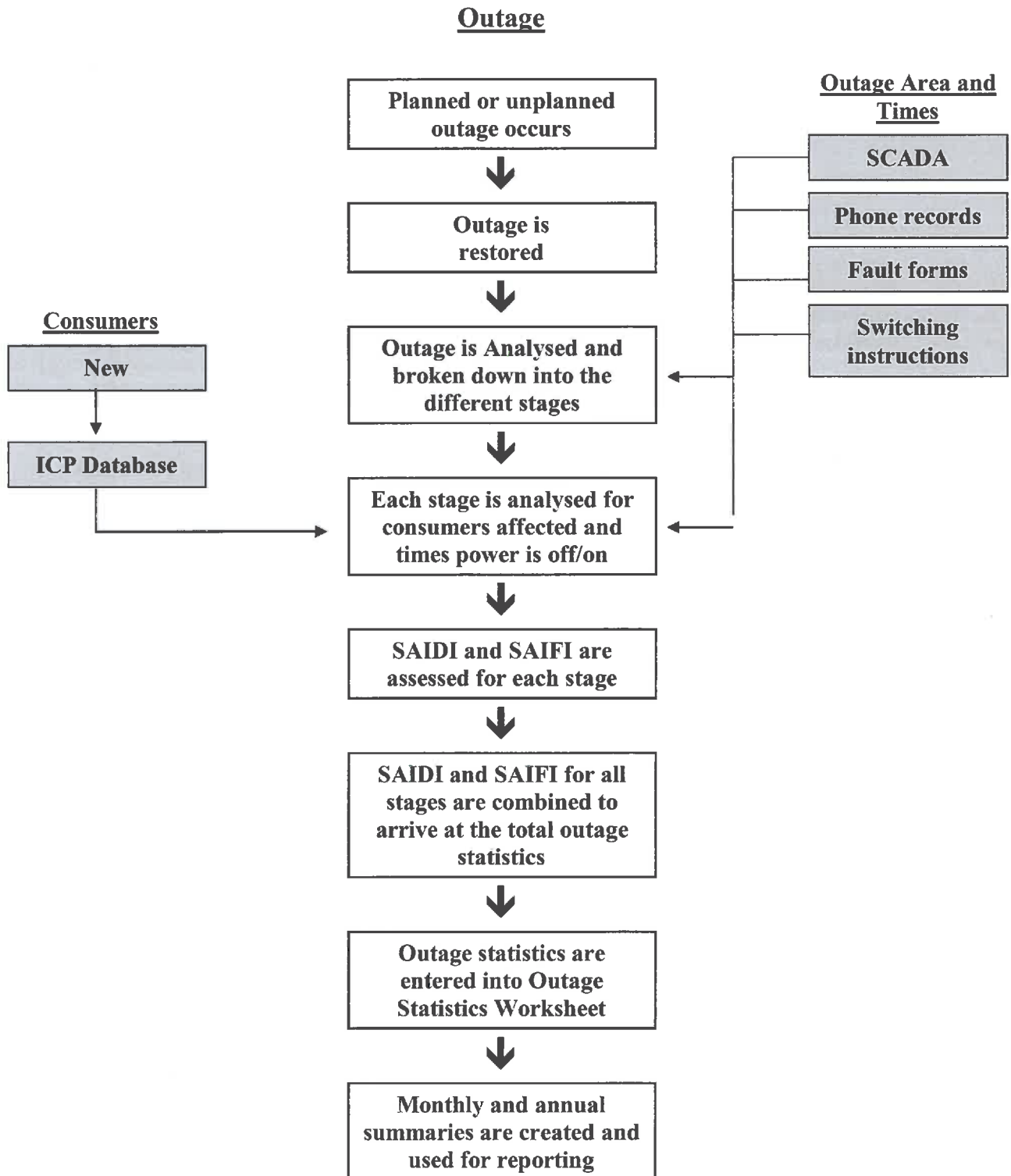
Calculations of customer minutes are prepared on the switching record for each individual outage based on switching times and ICP records. The customer minutes for each event are then added to the SAIDI/SAIFI Spreadsheet which summarises all events for the year and is used to calculate the annual SAIDI and SAIFI. The numbers of outages on the Nelson Electricity network are low compared to other Electricity Line Companies and so it is a relatively easy task to manage these data requirements. A hard copy summary of each outage is held on file.

The Asset Manager reports to the General Manager all individual unplanned outage statistics and provides monthly summaries, which are used and reported to NEL Directors.

The outage statistics are also collected and accumulated for the year from 1 April – 31 March the following year. This accumulated result is used in all the information disclosures including the Quality Assessment disclosure.

The Business System Administrator audits the results to ensure process and results are accurate.

Outage Statistics Reporting Flow Chart



Appendix I – Major Event Day Causes

There were two Major Event Days for the year ending 31 March 2016.

1/11/2015	Emano Street	Bird Strike on overhead 11kV line
8/11/2015	Motueka Street	11kV cable fault

