

Nelson Electricity Limited

DEFAULT PRICE QUALITY PATH COMPLIANCE STATEMENT

FOR THE ASSESSMENT DATE 31 MARCH 2014

*Pursuant to the Electricity Distribution Services Default Price-Quality
Path Determination 2012*

13 June 2014

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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 2013, as specified in the *Electricity Distribution Services Default Price-Quality Path Determination 2012*.

Clause 8.4 - The notional revenue (NR_t) of a Non-exempt EDB at any time during the Assessment Period must not exceed the allowable notional revenue (R_t) for the Assessment Period.

Compliance is demonstrated in the following tables. The first table demonstrates that notional revenue derived using posted prices at the end of the Assessment Period is less than allowable notional revenue. The second table demonstrates that the maximum notional revenue during the Assessment Period does not exceed allowable notional revenue thus illustrating that at no time during the Assessment Period is the price path breached.

Test:	$\frac{NR_{2014}}{R_{2014}} \leq 1$	
NR ₂₀₁₄ :	\$	7,079,736
R ₂₀₁₄ :	\$	7,082,905
Result:	0.9996 < 1	
Result:	Price Path has not been breached	

Test:	$\frac{NR_{Max}}{R_{2014}} \leq 1$	
NR _{Max} :	\$	7,079,736
R ₂₀₁₄ :	\$	7,082,905
Result:	0.9996 < 1	
Result:	Price Path has not been breached	

Supporting evidence is presented in Appendices A, B and C.

2) Compliance with the Quality Standards (Clause 11.1(a))

Nelson Electricity Limited does comply with all requirements of the quality standards at the assessment date, 31 March 2014, as specified in the *Electricity Distribution Services Default Price-Quality Path Determination 2012*.

Clause 9.2 - A Non-exempt EDB’s Assessed Values for an Assessment Period must not exceed its Reliability Limits for that Assessment Period.

Compliance is demonstrated in the following tables. The first table demonstrates compliance with the SAIDI Limit and the second table compliance with the SAIFI limit.

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	

Supporting evidence is presented in Appendices D and E.

3) Director Certification (Clause 11.3(m))

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 2012* are true and accurate.



Paul Donald Le Gros

13 June 2014

Chairman

4. Auditor's Report (Clause 11.6)



4) Auditor's Report (Clause 11.6)

INDEPENDENT AUDITOR'S 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 2014 on pages 2 to 3 and 7 to 12 complies, in all material respects, with the Electricity Distribution Services Default Price-Quality Path Determination 2012 NZCC 35 (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.

Auditor's 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: *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.

These standards require that we comply with ethical requirements and plan and perform our audit to provide reasonable assurance (which is also referred to as 'audit' assurance) about whether the Annual Compliance Statement has been prepared in all material respects in accordance with the Determination.

An audit involves performing procedures to obtain evidence about the amounts and disclosures in the Annual Compliance Statement. The procedures selected depend on the auditor's 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, the auditor considers internal control relevant to the company's preparation of the Annual Compliance Statement in order to design audit 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 relation to the price path set out in clause 8 of the Determination, our audit included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 2 and 7 to 10 of the Annual Compliance Statement.

In relation to the SAIDI and SAIFI statistics for the Reference Period and the Assessment Period ended on 31 March 2014, including the calculation of the Reliability Limits and the Assessed Values, which are relevant to the quality standards set out in clause 9 of the Determination, our audit included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 3 and 11 to 12 of the Annual Compliance Statement.

Our audit 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 audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Use of this report

This independent auditor's report has been prepared for the directors of the company and for the Commerce Commission for the purpose of providing those parties with independent audit 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 an audit 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 auditor's report has been formed on the above basis.

Independence

When carrying out the engagement we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the External Reporting 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, the annual audit pursuant to Electricity Distribution Information Disclosure Determination 2012, the audit pursuant to the Notice to Supply Information to the Commerce Commission under s53ZD of the Commerce Act 1986 and the annual audit of the company's financial statements, we have no relationship with or interests in the company.

Opinion

In our opinion, the Annual Compliance Statement of Nelson Electricity Limited for the year ended on 31 March 2014, has been prepared, in all material respects, in accordance with the Determination.

Our audit was completed on 13 June 2014 and our opinion is expressed as at that date.



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

Appendix A – Price Path Compliance Calculations (Clause 11.2(b))

Notional Revenue for the year ending March 2014		
Term	Description	Value \$
$P_{2014} * Q_{2012}$	Prices at 31 March 2014 multiplied by 31 March 2012 Base Quantities	10,278,207
V_{2014}	Transmission Charges for year ending 31 March 2014	3,531
	Indirect Transmission Charges for year ending 31 March 2014	3,120,756
K_{2014}	Rates for year ending 31 March 2014	25,594
	Electricity Authority Levies for year ending 31 March 2014	33,483
	Commerce Act Levies for year ending 31 March 2014	15,106
NR_{2014}	Notional Revenue for the year ending 31 March 2014	7,079,736

Supported by P*Q schedule presented in Appendix B

Maximum Notional Revenue for the year ending March 2014		
Term	Description	Value \$
$P_{Max} * Q_{2012}$	Maximum Prices between 1 April 2013 and 31 March 2014 multiplied by 31 March 2012 Base Quantities	10,278,207
V_{2014}	Transmission Charges for year ending 31 March 2014	3,531
	Indirect Transmission Charges for year ending 31 March 2014	3,120,756
K_{2014}	Rates for year ending 31 March 2014	25,594
	Electricity Authority Levies for year ending 31 March 2014	33,483
	Commerce Act Levies for year ending 31 March 2014	15,106
NR_{Max}	Notional Revenue for the year ending 31 March 2014	7,079,736

Supported by P*Q schedule presented in Appendix B

Allowable Notional Revenue 2014		
Term	Description	Value \$
<i>MAR</i> ₂₀₁₄	Maximum Allowable Revenue as per Schedule 1C - Table 4 of Determination	7,196,000
<i>V</i> ₂₀₁₄	Transmission Charges for year ending 31 March 2014	3,531
	Indirect Transmission Charges for year ending 31 March 2014	3,120,756
<i>K</i> ₂₀₁₃	Rates for year ending 31 March 2014	25,594
	Electricity Authority Levies for year ending 31 March 2014	33,483
	Commerce Act Levies for year ending 31 March 2014	15,106
<i>ΔD</i>	Change in Constant Price Revenue as per Schedule 1C - Table 4 of the Determination	1,0110
<i>R</i> ₂₀₁₄	Allowable Notional Revenue as per Schedule 1C of the Determination	7,082,905

Appendix B – Price and Quantity Schedule (Clause 11.3(a))

Revenue Table using 31 March 2014 Prices and 2011/2012 Quantities

Number of Days:		365								
Tariff or Fee	Number of ICPs at 31/03/2012	kWh at 31/3/2012	kVA at 31/3/2012	Distribution Charges			Notional Distribution Revenue (\$)		Total Revenue (\$) P ₂₀₁₄ Q ₂₀₁₂	
				Fixed		Variable (c/kWh)	Fixed	Variable		
				\$/day	c/kVA/day					Other
Group 0										
Streetlights	1			273.12				99,689		99,689
Unmetered Fixed	30			0.06000				657		657
Unmetered Capacity			2.440		102.000			908		908
Builders Temp	11			0.60				2,409		2,409
BT-kWh		4,368					8.66	-	378	378
Group 1										
Fixed	2102		31,530		1.00			115,085		115,085
Anytime		6,744,157					8.66	-	584,189	584,189
Controlled		3,418,780					5.27	-	180,134	180,134
Nightrate		315,230					3.42	-	10,796	10,796
Group 2										
Fixed	6850		141,104		5.34			2,749,992		2,749,992
Anytime		59,941,503					5.15	-	3,086,987	3,086,987
Controlled		13,637,633					3.10	-	422,767	422,767
Nightrate		1,507,088					2.10	-	31,649	31,649
Time of Use										
Metered Installation Charge	94			1.10				37,741		37,741
Energy		45,795,389					1.70	-	778,522	778,522
Winter Demand			14,101		21.25			1,093,650		1,093,650
Capacity Supply Group 3	3			2.02				2,208		2,208
Capacity Supply Group 4	0			3.31				-		-
Capacity Supply Group 5	8			5.28				15,418		15,418
Capacity Supply Group 6	8			6.62				19,342		19,342
Capacity Supply Group 7	36			10.46				137,497		137,497
Capacity Supply Group 8	11			14.40				57,816		57,816
Capacity Supply Group 9	13			24.00				113,880		113,880
Capacity Supply Group 10	9			36.00				118,260		118,260
Capacity Supply Group 11	3			48.00				52,560		52,560
Capacity Supply Group 12	1			72.00				26,280		26,280
Capacity Supply Group 13	1			96.00				35,040		35,040
Capacity Supply Group 15	1			115.20				42,048		42,048
Power Factor			750			72.00		54,000		54,000
TOU Sealord										
Fixed	1					396,139		396,139		396,139
Power Factor			169			72.00		12,168		12,168
Σ P₂₀₁₃ Q₂₀₁₂										10,278,207

Appendix C – Pass Through and Recoverable Costs (Clause 11.3(b) and (c))

Pass Through and Recoverable Costs for year ending March 2014				
K ₂₀₁₄ and V ₂₀₁₄	Actual (\$)	Forecast (\$)	Variance (\$)	Variance (%)
Transmission	3,531	-	3,531	100.0%
Indirect Transmission	3,120,756	3,121,120	(364)	(.01)%
Rates	25,594	25,059	535	2.09%
Electricity Authority Levies	33,483	28,042	5,441	16.25%
Commerce Act Levies	15,106	10,366	4,740	31.38%
Total Pass Through and Recoverable Costs	3,198,471	3,184,587	13,884	.43%

- * **Electricity Authority Levies** are in excess of forecast due to the Nelson Electricity transmission services provider invoicing Nelson Electricity the Electricity Authority related costs for the volume of electricity conveyed to the Nelson Electricity network. Nelson Electricity is also being invoiced levies as an Industry Participant for the same volumes.
- * **Commerce Act Levies** are greater than the forecast due to an inaccurate forecast based on Commerce Act Levies for year ending 31 March 2013. Future years forecasts will be in line with actual for future years.
- * **Indirect Transmission Charges** are included as approved by the Commerce Commission on 7 March 2014.

Appendix D – Quality Standard Compliance Calculations (Clause 11.3(h))

Reliability Data (Before Normalisation)

Year	SAIDI (Interruption Duration)			SAIFI (Interruption Frequency)		
	Class B	Class C	Total	Class B	Class C	Total
2005	12.03	38.63	50.66	0.09	0.75	0.84
2006	12.19	10.16	22.35	0.08	0.16	0.24
2007	9.29	16.46	25.75	0.06	0.21	0.27
2008	4.67	12.27	16.93	0.03	0.16	0.18
2009	28.63	87.18	115.81	0.21	1.68	1.90
	Reference Period Total SAIDI		231.51	Reference Period Total SAIFI		3.43
	Reference Period Average SAIDI		46.30	Reference Period Average SAIFI		0.69
2012	9.18	54.3	63.47	0.05	1.06	1.10
2013	10.21	33.40	43.61	0.05	0.51	0.56
2014	1.77	20.61	22.38	0.29	0.21	0.50

Reliability Limit Calculations

SAIDI Boundary Calculations		
α_{SAIDI}	-1.3132	The average of the natural logarithm (ln) of each daily SAIDI Value in the non-zero data set
β_{SAIDI}	2.0581	The standard deviation of the natural logarithm (ln) of each daily SAIDI Value in the non-zero data set
$B_{SAIDI} = e^{(\alpha_{SAIDI} + 2.5 * \beta_{SAIDI})}$	46.1580	SAIDI Boundary Value

SAIFI Boundary Calculations		
α_{SAIFI}	-6.0552	The average of the natural logarithm (ln) of each daily SAIFI Value in the non-zero data set
β_{SAIFI}	2.1813	The standard deviation of the natural logarithm (ln) of each daily SAIFI Value in the non-zero data set
$B_{SAIFI} = e^{(\alpha_{SAIFI} + 2.5 * \beta_{SAIFI})}$	0.5477	SAIFI Boundary Value

Event Days exceeding SAIDI Boundary Value within the Reference Dataset				
Date	Pre-Normalised SAIDI	Pre-Normalised SAIFI	Normalised SAIDI	Normalised SAIFI
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-

SAIDI Limit

μ_{SAIDI}	46.3026	The average annual SAIDI Value in the Normalised Reference Dataset
σ_{SAIDI}	25.2338	The standard deviation of daily SAIDI Values in the Normalised Reference Dataset multiplied by $\sqrt{365}$
$SAIDI_{Limit} = \mu_{SAIDI} + \sigma_{SAIDI}$	71.5364	SAIDI Limit Value

SAIFI Limit

μ_{SAIFI}	0.6853	The average annual SAIFI Value in the Normalised Reference Dataset
σ_{SAIFI}	0.4404	The standard deviation of daily SAIFI Values in the Normalised Reference Dataset multiplied by $\sqrt{365}$
$SAIFI_{Limit} = \mu_{SAIFI} + \sigma_{SAIFI}$	1.1256	SAIFI Limit Value

Reliability Assessment Calculations**Event Days exceeding SAIDI Boundary Value within the Assessment Dataset**

Date	Pre-Normalised SAIDI	Pre-Normalised SAIFI	Normalised SAIDI	Normalised SAIFI
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-
			-	-

Assessed SAIDI Value

$SAIDI_{2014}$	22.38	The sum of daily SAIDI Values in the 1 April 2013 - 31 March 2014 Normalised Assessment Dataset
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Assessed SAIFI Value

$SAIFI_{2014}$	0.50	The sum of daily SAIFI Values in the 1 April 2013 - 31 March 2014 Normalised Assessment Dataset
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Appendix E – Policies and Procedures for Recording SAIDI and SAIFI (Clause 11.3(i))

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 Threshold disclosure.

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

Outage Statistics Reporting Flow Chart



