

Network Tasman Limited

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NETWORK TASMAN LIMITED

DEFAULT PRICE-QUALITY PATH COMPLIANCE STATEMENT

For Assessment Date: 31 March 2011

Pursuant to the Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010

Dated 12th July 2011

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1. DIRECTORS CERTIFICATION OF DEFAULT PRICE-QUALITY PATH COMPLIANCE STATEMENT

We, Ian F. Kearney and Christopher I. M. Turner, being directors of Network Tasman Limited, certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached Annual Compliance Statement of Network Tasman Limited, and related information, prepared for the purposes of the *Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010* are true and accurate.



Ian F Kearney

Chairman of Directors

Christopher IM Turner

Director

Dated: 12th of July 2011

2. DEFAULT PRICE PATH COMPLIANCE STATEMENT

a). Information

The audited information attached, including the:

- notional revenue (Appendix 1)
- allowable notional revenue (Appendix 2)
- network base quantity information (Appendix 3)
- network revenue and pricing information (Appendices 4, 5 & 6)
- pass through cost information (Appendix 7)

has been prepared specifically to comply with the requirements of Clause 8 of the *Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010*.

b). Compliance

Network Tasman Limited fully **complies with the default price pathway** requirements specified in Clause 8 of the *Commerce Act (Electricity Distribution Default Price-Quality) Determination 2010* for the year to 31 March 2011. The following tests confirm NTL's compliance:

Test 1: Clause 8.4

The Notional Revenue (NR_{2011}) of a Non-exempt EDB *as at 31 March 2011* must not exceed the Allowable Notional Revenue (R_{2011}) under the CPI-X price pathway for the Assessment Period ending 31 March 2011:

Test:	$\frac{NR_{2011}}{R_{2011}} \leq 1$	
NR_{2011} :	\$	22,752,496
R_{2011} :	\$	23,207,563
Result:		0.9804 < 1
Result:	Price Path has not been breached	

This test confirms Network Tasman Limited has complied with the Default Price Path; actual Notional Revenue was \$455,067 less than the Allowable Notional Revenue *as at 31 March 2011*.

Test 2: Clause 8.4

The Notional Revenue (NR_{2011}) of a Non-exempt EDB *at any time during* the Assessment Period in the year to 31 March 2011 must not exceed the Allowable Notional Revenue (R_{2011}) for the Assessment Period:

Test:	$\frac{NR_{Max}}{R_{2011}} \leq 1$	
NR_{Max} :	\$	22,752,496
R_{2011} :	\$	23,207,563
Result:		0.9804 < 1
Result:	Price Path has not been breached	

This test confirms NTL has complied with Default Price Path throughout the year ending 31 March 2011.

The supporting evidence for Tests 1 & 2 above is provided in Appendices 1-7

c). Notional Revenue

Notional Revenue for the price pathway calculations includes all revenue NTL derives from supply of the following controlled, non-contestable line function services:

- Electricity conveyance services provided under Use of Systems Agreements with electricity retailers
- Electricity conveyance services provided under Direct Connection Agreements with major electricity consumers and embedded electricity generators
- Access to capacity charges levied directly on new electrical loads at the time of their connection to Network Tasman Limited's distribution network.

d). Pass Through Costs

For the purpose of the Default Price Path calculations, pass through costs include:

i) Transmission

- Connection charges
- Interconnection charges
- New Investment charges
- Avoided transmission charges paid to embedded generators

ii) Rates & Electricity Authority and Commerce Act Levies

- Local Authority rates levied on EDB systems fixed assets including lines, cables, electrical equipment and substation land and buildings.
- Electricity Authority regulatory costs allocated to EDB's under an industry levy formula determined by government.
- Commerce Act levies for the funding of Commerce Commission EDB regulatory activities that are allocated to EDB's under an industry levy formula determined by government.

3. DEFAULT QUALITY STANDARDS COMPLIANCE STATEMENT

a) Information

The audited information attached for the:

- Interruption duration index (SAIDI) assessment (Appendix 8)
 - Interruption frequency index (SAIFI) assessment (Appendix 8)
- was prepared specifically to comply with the requirements of Clause 9 of the *Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010*.

b) Compliance

The quality standards assessments for SAIDI and SAIFI below demonstrate that for the year to 31 March 2011, Network Tasman's:

- **Assessed SAIDI value has exceeded the SAIDI Limit**
- **Assessed SAIFI value has not exceeded the SAIFI Limit**

when calculated in accordance with Clause 9.2 of the *Commerce Act (Electricity Distribution Price-Quality Path) Determination 2010*. This does not place Network Tasman in a position of non-compliance with the quality standards for 2011 (as this is the first assessment period).

Clause 9.2 Interruption Duration (SAIDI Classes B&C)

Test:	$\frac{SAIDI_{Assess\ 2011}}{SAIDI_{Limit}} \leq 1$	
SAIDI _{Assess 2011}	178.0397	
SAIDI _{Limit}	162.5348	
Result:	1.0954	> 1
Result:	SAIDI Limit has been exceeded.	

Clause 9.2 Interruption Frequency (SAIFI Classes B&C)

Test:	$\frac{SAIFI_{Assess\ 2011}}{SAIFI_{Limit}} \leq 1$	
SAIFI _{Assess 2011}	1.6366	
SAIFI _{Limit}	1.7440	
Result:	0.9384	< 1
Result:	SAIFI Limit has not been exceeded	

The supporting evidence for these SAIDI and SAIFI tests is provided in Appendix 8.

c) Explanation of NTL's Failure to Meet the SAIDI Quality Standard in 2010-11.

NTL has exceeded the SAIDI Quality standard by 15.0549 minutes or 9.54%. Key events contributing to this outcome were:

- (i) Class C unplanned outage SAIDI minutes were materially above average levels recorded over the 5 year reference period from 2005-2009. This was primarily due to:
 - Switchgear malfunctions at Brightwater Zone Substation in June 2010 resulting in 25.97 SAIDI minutes
 - Car vs Pole on the Appleby Highway on 25 July 2010 resulting in 13 SAIDI minutes
- (ii) For Class B SAIDI, as explained in the 2009-10 Threshold Compliance Statement, NTL's planned outage minutes have trended higher since March 2009. This was due to a policy change relating to the use of live line techniques on small copper conductors and was driven by Health and Safety considerations. The following statement was included in NTL's 2010-11 Asset Management Plan:

NTL AMP Extract –Section 4.8

During 2009, safety issues around live line work with copper conductors led to a ban on live line operations on light copper conductor high voltage lines. Due the prevalence of copper conductor in rural radial feeders, this development is expected to significantly impact reliability performance for planned outages. The planned outage targets have accordingly been revised upwards this year to SAIDI 40, SAIFI 0.28 and CAIDI 140.

NTL contractors ceased live line work on small copper conductors in March 2009. As a consequence NTL now incurs additional Class B SAIDI minutes over and above the levels recorded for the reference years prior to 2009-10. The AMP (see above) states this policy change will result in NTL's Class B SAIDI increasing annually by 15 minutes on average.

The SAIDI_{LIMIT} of 162.5348 minutes and SAIFI_{LIMIT} of 1.744 were both determined from the reference period data set which predated this policy change and so give no recognition or allowance for the step change in Class B SAIDI occurring from 2009-10 onwards.

d) Network Tasman SAIDI & SAIFI Policies and Procedures

Network Tasman is required under Clause 11.1(b) (v) of the *Commerce Act (Electricity Distribution Price-Quality Path) Determination 2010* to describe the policies and procedures used to record the SAIDI and SAIFI statistics for the Assessment Period ending 31 March 2011. This information is provided in Appendix 9.

4. DISCLAIMER

The information disclosed by Network Tasman Limited in this Default Price-Quality Path Compliance Statement has been prepared solely for the purposes of complying with the requirements of the *Commerce Act 1986 and the Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010*.

The information disclosed relates only to those lines business activities covered by the Determination. NTL is involved in other activities that are not required to be reported on under the Determination.

The information has not been prepared for any other purpose than that required by the Determination and Network Tasman Limited expressly disclaims any liability to any party who may rely on this information for any other purpose.

Dated the 12th Day of July 2011.



Independent Auditors' Report

to the readers of the Annual Compliance Statement of Network Tasman Limited for the assessment period ended on 31 March 2011

The Auditor-General is the auditor of Network Tasman Limited (the company). The Auditor-General has appointed me, Robert Harris, using the staff and resources of PricewaterhouseCoopers, to provide an opinion, on her behalf, on the company's Annual Compliance Statement for the assessment period ended on 31 March 2011 on pages 3 to 6 and 9 to 19 regarding compliance with the Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010.

We have audited the Annual Compliance Statement in respect of the default price-quality path prepared by the company for the assessment period ended on 31 March 2011 and dated 12 July 2011 for the purposes of clause 11 of the Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010 ("the Determination").

Directors' Responsibilities

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, whether due to fraud or error.

Auditor's Responsibilities

Our responsibility is to express an opinion on the Annual Compliance Statement based on our audit. We conducted our audit in accordance with the New Zealand Institute of Chartered Accountants Standard on Assurance Engagements 3100: *Compliance Engagements*. This standard requires that we comply with ethical and quality control requirements and plan and perform the audit to obtain reasonable assurance about whether the Annual Compliance Statement has been prepared in accordance with the Determination and is free from material misstatement.

An audit involves performing procedures to obtain audit 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. In making those risk assessments, the auditor considers internal control relevant to the entity'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 entity'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 3 to 4 and 9 to 15 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 2011, 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 5 to 6 and 16 to 19 of the Annual Compliance Statement.



Independent Auditors' Report **Network Tasman Limited**

Our audit also included assessment of the significant estimates and judgments, if any, made by the company in the preparation of the Annual Compliance Statement and whether adequate information has been disclosed in accordance with clause 11.1(b) of the Determination.

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

Limitations and Use of this Independent Auditor's Report

This independent auditor's report has been prepared solely for the Directors of Network Tasman Limited and the Commissioners of the New Zealand Commerce Commission in accordance with the Determination. We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Directors of Network Tasman Limited and the Commissioners, or for any purpose other than that for which it was prepared.

Because of the inherent limitations in evidence gathering procedures, it is possible that fraud, error or non-compliance may occur and not be detected. As the procedures performed for this engagement are not performed continuously throughout the assessment period and the procedures performed in respect of the company's compliance with the Determination are undertaken on a test basis, our engagement cannot be relied on to detect all instances where the company may not have complied with the Determination. Our opinion has been formed on the above basis.

Independence

We have no relationship with, or interests in the company, other than the provision of other professional advisory services. We are not aware of any relationships between our firm and Network Tasman Limited that, in our professional judgment, may reasonably be thought to impair our independence.

Opinion

In our opinion, the Annual Compliance Statement of Network Tasman Limited for the Assessment Period ended on 31 March 2011, has been prepared, in all material respects, in accordance with the Determination.

Our audit was completed on 12 July 2011 and our opinion is expressed as at that date.

A handwritten signature in blue ink, appearing to read 'Robert Harris'.

Robert Harris
On behalf of the Auditor-General
Christchurch, New Zealand

PricewaterhouseCoopers

6. APPENDICES

Appendix 1.

Clause 8.4:

Notional Revenue to 31 March 2011: *NR₂₀₁₁*

Notional Revenue for the year ending 31 March 2011		
Term	Description	Value \$
$P_{2011} * Q_{2009}$	Prices at 31 March 2011 multiplied by 31 March 2009 Base Quantities	35,247,983
K_{2011}	Transmission Charges for year ending 31 March 2011	12,243,993
	Avoided Transmission Charges for year ending 31 March 2011	45,412
	Rates for year ending 31 March 2011	28,323
	Electricity Authority Levies for year ending 31 March 2011	90,733
	Commerce Act Levies for year ending 31 March 2011 + 1/5 of Commerce Act Levies for year ending 31 March 2010	87,027
NR_{2011}	Notional Revenue for the year ending 31 March 2011	22,752,496

Maximum Notional Revenue to 31 March 2011: *Max NR₂₀₁₁*

Maximum Notional Revenue for the year ending 31 March 2011		
Term	Description	Value \$
$P_{Max} * Q_{2009}$	Maximum Prices between 1 April 2010 and 31 March 2011 multiplied by 31 March 2009 Base Quantities	35,247,983
K_{2011}	Transmission Charges for year ending 31 March 2011	12,243,993
	Avoided Transmission Charges for year ending 31 March 2011	45,412
	Rates for year ending 31 March 2011	28,323
	Electricity Authority Levies for year ending 31 March 2011	90,733
	Commerce Act Levies for year ending 31 March 2011 + 1/5 of Commerce Act Levies for year ending 31 March 2010	87,027
NR_{Max}	Notional Revenue for the year ending 31 March 2011	22,752,496

Appendix 2.

Clause 8.5:

Allowable Notional Revenue to 31 March 2011: R_{2011}

Allowable Notional Revenue 2011		
Term	Description	Value \$
$P_{2010} * Q_{2009}$	Prices at 31 March 2010 multiplied by 31 March 2009 Base Quantities	35,327,926
K_{2010}	Transmission Charges for year ending 31 March 2010	12,546,315
	Avoided Transmission Charges for 2010	36,605
	Rates for year ending 31 March 2010	25,979
	Electricity Commission Levies for year ending 31 March 2010	69,777
X	X Factor	-
$(1 + \Delta CPI_{2011})$	Average change in Consumer Price Index	1.0247
R_{2011}	Allowable Notional Revenue under the CPI-X Price Path for the year ending 31 March 2011	23,207,563

Appendix 3.

Base Quantities: Q_{2009}

Fixed/ Variable	Group/Category	NTL Code/ description	Quantity $Q_{i,2009}$	Quantity Unit
VARIABLE CHARGES	1&2	ANY	228,774,169	kWh
		DAY	18,600,870	kWh
		WSR	66,527,662	kWh
		NIT	14,045,664	kWh
		OPK	860,270	kWh
		GENA	0	kWh
	2LLFC	2LANY	62,480	kWh
		2LDAY	4,759	kWh
		2LWSR	8,431	kWh
		2LNIT	1,237	kWh
		2LOPK	0	kWh
	2HLFC	2HANY	3,180	kWh
		2HDAY	0	kWh
		2HWSR	0	kWh
		2HNIT	0	kWh
		2HOPK	0	kWh
	3.1	Summer Day	4,331,539	kWh
		Summer Night	1,761,950	kWh
		Winter Day	3,159,054	kWh
		Winter Night	1,271,466	kWh
	3.3 & 3.4	Summer Day	40,302,091	kWh
		Summer Night	14,244,461	kWh
		Winter Day	29,295,847	kWh
		Winter Night	10,293,793	kWh
	3.5	Summer Day	5,516,323	kWh
		Summer Night	2,563,214	kWh
		Winter Day	4,296,452	kWh
		Winter Night	1,992,717	kWh
FIXED	0	0UNM	99	icp
		0STL	597,504	W
		0TBX	79	icp
	1	1	32,932	icp
	2	2	110,190	kVA
		2LLFC	13	icp
		2HLFC	1	icp
	3.1	Anytime	2,189	kVA
	3.3 & 3.5	Anytime	5,486	kVA
	3.4	Anytime	33,544	kVA
	3 All Cats	Winter	16,573	kW
	All	Power Factor	191	kVAr
	G6	G6	1	Annual Fixed Charge
	NEL	NEL	1	Annual Fixed Charge
	New Connections	CC	27,470	kVA-km

Appendix 4.

NTL Price Schedule as at 31 March 2011: *Pi* 2011

Fixed / Variable	Group / Category	NTL Code / description	Prices $P_{i, 2011}$	Unit
VARIABLE CHARGES	1&2	ANY	7.73	c/kWh
		DAY	8.51	c/kWh
		WSR	3.57	c/kWh
		NIT	2.59	c/kWh
		OPK	6.02	c/kWh
		GENA	0	c/kWh
	2LLFC	2LANY	10.73	c/kWh
		2LDAY	11.51	c/kWh
		2LWSR	6.57	c/kWh
		2LNIT	5.59	c/kWh
		2LOPK	9.02	c/kWh
	2HLFC	2HANY	14.43	c/kWh
		2HDAY	15.21	c/kWh
		2HWSR	10.27	c/kWh
		2HNIT	9.29	c/kWh
		2HOPK	12.72	c/kWh
	3.1	Summer Day	0.39	c/kWh
		Summer Night	0.22	c/kWh
		Winter Day	0.72	c/kWh
		Winter Night	0.22	c/kWh
	3.3 & 3.4	Summer Day	1.25	c/kWh
		Summer Night	0.66	c/kWh
		Winter Day	3.36	c/kWh
		Winter Night	0.66	c/kWh
	3.5	Summer Day	0.85	c/kWh
		Summer Night	0.53	c/kWh
		Winter Day	2.87	c/kWh
		Winter Night	0.53	c/kWh
FIXED	0	0UNM	44	c/day
		0STL	0.098	c/day
		0TBX	114	c/day
	1	1	15	c/day
	2	2	4.05	c/kVA/day
		2LLFC	15	c/day
		2HLFC	15	c/day
	3.1	Anytime	10.02	c/kVA/day
	3.3 & 3.5	Anytime	12.89	c/kVA/day
	3.4	Anytime	13.62	c/kVA/day
	3 All Cats	Winter	21.78	c/kVA/day
	3 All Cats	Power Factor	23.54	c/kVAr/day
	G6	G6	1,702,523	Annual Fixed Charge
	NEL	NEL	2,411,789	Annual Fixed Charge
	New Connections	CC	5.17	\$/kVA-km

Appendix 5.

Revenue: $P_{2011} \times Q_{2009}$ and $P_{MAX} \times Q_{2009}$

Fixed/ Variable	Group/Category	NTL Code/ description	Quantity $Q_{i,2009}$	$P_{i,2011}$	$P_{i,2011} Q_{i,2009}$
VARIABLE CHARGES	1&2	ANY	228,774,169	7.73	17,684,243
		DAY	18,600,870	8.51	1,582,934
		WSR	66,527,662	3.57	2,375,038
		NIT	14,045,664	2.59	363,783
		OPK	860,270	6.02	51,788
		GENA	0	0	0
	2LLFC	2LANY	62,480	10.73	6,704
		2LDAY	4,759	11.51	548
		2LWSR	8,431	6.57	554
		2LNIT	1,237	5.59	69
		2LOPK	0	9.02	0
	2HLFC	2HANY	3,180	14.43	459
		2HDAY	0	15.21	0
		2HWSR	0	10.27	0
		2HNIT	0	9.29	0
		2HOPK	0	12.72	0
	3.1	Summer Day	4,331,539	0.39	16,893
		Summer Night	1,761,950	0.22	3,876
		Winter Day	3,159,054	0.72	22,745
		Winter Night	1,271,466	0.22	2,797
	3.3 & 3.4	Summer Day	40,302,091	1.25	503,776
		Summer Night	14,244,461	0.66	94,013
		Winter Day	29,295,847	3.36	984,340
		Winter Night	10,293,793	0.66	67,939
	3.5	Summer Day	5,516,323	0.85	46,889
		Summer Night	2,563,214	0.53	13,585
		Winter Day	4,296,452	2.87	123,308
		Winter Night	1,992,717	0.53	10,561
FIXED	0	0UNM	99	44	15,899
		0STL	597,504	0.098	213,727
		0TBX	79	114	32,872
	1	1	32,932	15	1,803,027
	2	2	110,190	4.05	1,628,884
		2LLFC	13	15	712
		2HLFC	1	15	55
	3.1	Anytime	2,189	10.02	80,058
	3.3 & 3.5	Anytime	5,486	12.89	258,108
	3.4	Anytime	33,544	13.62	1,667,573
	3 All Cats	Winter	16,573	21.78	1,317,504
	3 All Cats	Power Factor	191	23.54	16,389
	New Connections	CC	27,470	5.17	142,020
Group 6 and Nelson Electricity					4,114,312
$P_{2011} \times Q_{2009}$ and $P_{MAX} \times Q_{2009}$					35,247,983

Appendix 6.

Revenue : $P_{2010} \times Q_{2009}$ using NTL Prices at 31 March 2010

Fixed / Variable	Group / Category	NTL Code / description	Quantity Qi,2009	Pi,2010	Pi,2010 Qi,2009
VARIABLE CHARGES	1&2	ANY	228,774,169	7.73	17,684,243
		DAY	18,600,870	8.51	1,582,934
		WSR	66,527,662	3.57	2,375,038
		NIT	14,045,664	2.59	363,783
		OPK	860,270	6.02	51,788
		GENA	0	0	0
	2LLFC	2LANY	62,480	10.73	6,704
		2LDAY	4,759	11.51	548
		2LWSR	8,431	6.57	554
		2LNIT	1,237	5.59	69
		2LOPK	0	9.02	0
	2HLFC	2HANY	3,180	14.43	459
		2HDAY	0	15.21	0
		2HWSR	0	10.27	0
		2HNIT	0	9.29	0
		2HOPK	0	12.72	0
	3.1	Summer Day	4,331,539	0.39	16,893
		Summer Night	1,761,950	0.22	3,876
		Winter Day	3,159,054	0.72	22,745
		Winter Night	1,271,466	0.22	2,797
	3.3 & 3.4	Summer Day	40,302,091	1.25	503,776
		Summer Night	14,244,461	0.66	94,013
		Winter Day	29,295,847	3.36	984,340
		Winter Night	10,293,793	0.66	67,939
	3.5	Summer Day	5,516,323	0.85	46,889
		Summer Night	2,563,214	0.53	13,585
		Winter Day	4,296,452	2.87	123,308
		Winter Night	1,992,717	0.53	10,561
FIXED	0	0UNM	99	44	15,899
		0STL	597,504	0.098	213,727
		0TBX	79	114	32,872
	1	1	32,932	15	1,803,027
	2	2	110,190	4.05	1,628,884
		2LLFC	13	15	712
		2HLFC	1	15	55
	3.1	Anytime	2,189	10.02	80,058
	3.3 & 3.5	Anytime	5,486	12.89	258,108
	3.4	Anytime	33,544	13.62	1,667,573
	3 All Cats	Winter	16,573	21.78	1,317,504
	3 All Cats	Power Factor	191	23.54	16,389
	New Connections	CC	27,470	5.17	142,020
	Group 6 and Nelson Electricity				
Prices at 31 March 2010 multiplied by 31 March 2009 Base Quantities					35,327,926

Appendix 7.

Pass Through Costs for the Assessment Date 31 March 2011: *K*₂₀₁₁

Actual and Forecast

Pass Through Costs for year ending March 2011				
<i>K</i> ₂₀₁₁	Actual (\$)	Forecast (\$)	Variance (\$)	Variance (%)
Transmission	12,243,993	12,241,412	2,581	.02%
Avoided Transmission	45,412	45,412	-	.%
Rates	28,323	27,080	1,243	4.39%
Electricity Authority Levies	90,733	90,000	733	.81%
Commerce Act Levies	87,027	105,000	(17,973)	(20.65)%
Total Pass Through Costs	12,495,488	12,508,903	(13,416)	(.11)%

Pass Through Costs for Years ending 31 March 2010 and 2011: *K*₂₀₁₁ & *K*₂₀₁₀

<i>K</i>₂₀₁₁		<i>K</i>₂₀₁₀	
Transmission Charges for year ending 31 March 2011	12,243,993	Transmission Charges for year ending 31 March 2010	12,546,315
Avoided Transmission Charges for year ending 31 March 2011	45,412	Avoided Transmission Charges for 2010	36,605
Rates for year ending 31 March 2011	28,323	Rates for year ending 31 March 2010	25,979
Electricity Authority Levies for year ending 31 March 2011	90,733	Electricity Commission Levies for year ending 31 March 2010	69,777
Commerce Act Levies for year ending 31 March 2011 + 1/5 of Commerce Act Levies for year ending 31 March 2010	87,027		
Total	12,495,488		12,678,676

Appendix 8

Assessment Against the Quality Standards for the Assessment Date 31 March 2011

Reliability Data (Before Normalisation)

Year	SAIDI (Interruption Duration)			SAIFI (Interruption Frequency)		
	Class B	Class C	Total	Class B	Class C	Total
2005	119.3045	28.2018	147.5063	1.4953	0.2312	1.7265
2006	97.3654	25.1029	122.4684	0.9260	0.1348	1.0608
2007	77.1060	33.0657	110.1717	1.2369	0.2883	1.5252
2008	111.6893	45.8753	157.5646	1.3334	0.2003	1.5337
2009	215.8807	30.6622	246.5429	1.5411	0.1341	1.6752
	Reference Period Total SAIDI		784.2538	Reference Period Total SAIFI		7.5214
	Reference Period Average SAIDI		156.8508	Reference Period Average SAIFI		1.5043
2011	129.8695	48.1701	178.0397	1.3694	0.2672	1.6366

Reliability Limit Calculations

SAIDI Boundary Calculations

α_{SAIDI}	-1.8631	The average of the natural logarithm (ln) of each daily SAIDI Value in the non-zero data set The standard deviation of the natural logarithm (ln) of each daily SAIDI Value in the non-zero data set
β_{SAIDI}	1.9903	
$B_{SAIDI} = e^{(\alpha_{SAIDI} + 2.5 \cdot \beta_{SAIDI})}$	22.4792	SAIDI Boundary Value

SAIFI Boundary Calculations

α_{SAIFI}	-6.5765	The average of the natural logarithm (ln) of each daily SAIFI Value in the non-zero data set The standard deviation of the natural logarithm (ln) of each daily SAIFI Value in the non-zero data set
β_{SAIFI}	2.0111	
$B_{SAIFI} = e^{(\alpha_{SAIFI} + 2.5 \cdot \beta_{SAIFI})}$	0.2125	SAIFI Boundary Value

Event Days exceeding SAIDI Boundary Value within the Reference Dataset

Date	Pre-Normalised SAIDI	Pre-Normalised SAIFI	Normalised SAIDI	Normalised SAIFI
30-Jul-08	80.8972	0.3179	22.4792	0.2125
14-Aug-08	62.7867	0.1516	22.4792	0.1516
			-	-
			-	-

Appendix 8 Continued

SAIDI Limit

μ_{SAIDI}	137.1057	The average annual SAIDI Value in the Normalised Reference Dataset
σ_{SAIDI}	25.4291	The standard deviation of daily SAIDI Values in the Normalised Reference Dataset multiplied by $\sqrt{365}$
$SAIDI_{Limit} = \mu_{SAIDI} + \sigma_{SAIDI}$	162.5348	SAIDI Limit Value

SAIFI Limit

μ_{SAIFI}	1.4832	The average annual SAIFI Value in the Normalised Reference Dataset
σ_{SAIFI}	0.2608	The standard deviation of daily SAIFI Values in the Normalised Reference Dataset multiplied by $\sqrt{365}$
$SAIFI_{Limit} = \mu_{SAIFI} + \sigma_{SAIFI}$	1.7440	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
Nil			-	-
Nil			-	-

Assessed SAIDI Value

$SAIDI_{2011}$	178.0397	The sum of daily SAIDI Values in the 1 April 2010 - 31 March 2011 Normalised Assessment Dataset
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Assessed SAIFI Value

$SAIFI_{2011}$	1.6366	The sum of daily SAIFI Values in the 1 April 2010 - 31 March 2011 Normalised Assessment Dataset
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Appendix 9.

RELIABILITY RECORDING POLICIES and PROCEDURES

For the purposes of compiling annual SAIDI and SAIFI data:

- a high voltage outage on the distribution network is defined as an event resulting in loss of supply to any number of consumers for a duration of more than one minute
- only high voltage outages (6.6kV and above) resulting from de-energisation of any high voltage feeder or conductor are included in SAIDI & SAIFI statistics
- both planned and unplanned events are included within high voltage outage statistics
- all high voltage outages are managed through Network Tasman's control room by a qualified Network Tasman system operator
- the faults and maintenance contract between the company and its faults contractor, United Group, obligates both parties to manage all outage events centrally through the control room.
- All HV fault switching operations are recorded by the system operator in the control room log at the time the activity takes place. This provides a detailed record of the switching events for future reference.

Customers affected by operation of a distribution system high voltage protection device can be divided into:

1. Those within the core fault area (i.e. who won't have supply restored until the necessary line repairs are completed)
2. Those outside the immediate fault area (i.e. who can have power restored through co-ordinated switching activity)

To calculate the customer minutes lost under each fault event, each event is approximated as a maximum two step restoration process. This is in keeping with the philosophy of fault restoration which relies on the following a sequential process for supply restoration:

1. Identification, isolation and minimisation of the core fault area.
2. Restoration, through switching, of supply to areas not immediately within the core fault area
3. Making repairs and restoration of the core fault area.

The switching and recording process is managed by a NTL system operator using NTL's Geographical Information System (GIS). To record outage data the operator draws geographical selection polygons around all sections of the high voltage line affected by the fault event. The software is then used to select and identify all the distribution transformers within the fault area. A query is then made into NTL's customer connection database to find and list all customers connected to those transformers affected by the fault event.

This data is then used in the following formula to calculate the total customer minutes for a fault event:

$$\begin{aligned} & \text{Total No. of customers initially affected} \times (\text{Time Unfaulted Area restored} - \text{Time of Initial Interruption}) \\ & + \\ & \text{No. of Fault area customers} \times (\text{Time Fault Area restored} - \text{Time Unfaulted Area restored}) \end{aligned}$$

Planned and unplanned events use essentially the same recording process however by nature, planned interruptions can be identified to a set of consumers within a known area in advance. The total customer minutes for a planned interruption are thus calculated using the following formula:

$$\text{Total No. of customers interrupted} \times (\text{Time Interrupted Area restored} - \text{Time of Initial Interruption})$$

The system operator records details of all outage events in the NTL Outage Database. This is an access database that remains on line in the control room. Each planned or unplanned event forms a one record entry into the database. The Outages Database is subject to NTL's normal electronic file backup and security protocols.

The Outage Database records the following data fields for each event:

1. Date
2. ID number of the protective device that has operated (allows identification of the HV feeder and area affected)
3. Area: (Text description of area affected)
4. Description; (Text description of fault cause and type – recorded once known)
5. Outage type (Planned Shutdown or Fault)
6. Area Class (Urban or Rural)
7. Fault Class (Overhead or Underground)
8. Fault Voltage (6.6kV, 11kV, 33kV)
9. Outage Region (Stoke, Motueka, Golden Bay, Kikiwa, Murchison)
10. Time of Initial Interruption
11. Time Unfaulted Area Restored
12. Time Fault area restored
13. Customers (ICP's) in Total Area (recorded post event)
14. Customers (ICP's) in Fault area (recorded post event)

Unless otherwise stated all data is recorded on line by the NTL system operator at the time of the event.

The outage database is queried on an as needed basis by NTL's Network and Operations Managers and summary outage statistics are prepared and provided to NTL's CEO and Board of Directors on a monthly basis. Annual outage statistics are prepared and independently audited for regulatory reporting purposes. The summary statistics are recorded on a cumulative basis and are used for comparative analysis and form a key input into NTL annual Asset Management Planning process. Annual data is also reported against NTL's SCI reliability targets. These targets are negotiated annually with the Network Tasman Trust.