

NETWORK TASMAN LIMITED

THRESHOLD COMPLIANCE STATEMENT

**Pursuant to the
Commerce Act (Electricity Distribution Thresholds) Notice 2004
for
Compliance Assessment**

Dated 31 March 2005

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2. PRICE PATH THRESHOLD COMPLIANCE STATEMENT

Network Tasman Limited certifies that:

- a). The audited information attached, including the:
- price path threshold assessment (Appendices 1 & 2)
 - network revenue and pricing information (Appendices 3, 4 & 6)
 - network base quantity information (Appendix 5)
 - transmission cost information (Appendices 7 & 8)
 - Local Authority rates and Electricity Commission levy information (Appendix 9)
- has been prepared for the purposes of, and complies with, the requirements of Section 5 of the Commerce Act (Electricity Distribution Thresholds) Notice 2004 and Sections 57G and 57T of the Commerce Act 1986.
- b). The price path threshold assessment (Appendix 1), performed for the year ending 31 March 2005, confirms **Network Tasman Limited has complied** with the NZ Commerce Commission's price pathway threshold as per Section 5 of the Commerce Act (Electricity Distribution Thresholds) Notice 2004.
- c). The price path calculations, in accordance with the Gazette Notice, include all revenue derived from the supply of the following specified, 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 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). For the purpose of the price path calculations, pass through costs include:
- i) Transmission
- Connection charges
 - Interconnection charges
 - EVA Adjustments (if any)
 - New Investment charges
 - Common quality service charges (if any)
 - Loss and constraint rental credits
 - Avoided transmission charges
- ii) Rates & Electricity Commission Levies
- Local authority rates levied on systems fixed assets including lines, cables, electrical equipment and substation land and buildings.
 - Electricity Commission regulatory costs allocated to lines companies under the current industry levy formula determined by government.
- e). The following items of revenue, derived from non specified and non conveyancing line business activities, have been excluded from the threshold assessment:
- Interest income
 - Profit on sale of assets
 - Value of assets vested with Network Tasman Limited by consumers
 - Other miscellaneous income unrelated to the sale of electricity conveyancing services

- f). Network Tasman Limited does not own or operate any electrical contracting facilities nor does it provide any electrical contracting services to electricity consumers on a non-contestable basis. Any charges borne by electricity consumers for network extensions, reinforcements, repairs and maintenance and connection and disconnection services, within Network Tasman Limited's geographical area, are determined in a contestable environment with all work being performed by third parties.

3. QUALITY THRESHOLD COMPLIANCE STATEMENT

Network Tasman Limited certifies that:

- a) The audited information attached including the:
- Interruption duration index (SAIDI) assessment (Appendix 10)
 - Interruption frequency index (SAIFI) assessment (Appendix 10)
- was prepared for the purposes of, and complies with, the requirements of Sections 6 of the Commerce Act (Electricity Distribution Thresholds) Notice 2004 and Sections 57G and 57T of the Commerce Act 1986.
- b) The quality threshold assessments for SAIDI and SAIFI (Appendix 10) demonstrate that, for the year ended 31 March 2005, **Network Tasman Limited complied** with the NZ Commerce Commission's quantitative quality threshold requirements detailed in Sections 6 of the Commerce Act (Electricity Distribution Thresholds) Notice 2004.
- c) The biannual customer communication requirements detailed in Sections 6(c) of the Commerce Act (Electricity Distribution Thresholds) Notice 2004 were undertaken and complied with during the year ended 31 March 2004. As part of the company's ongoing compliance obligations, Network Tasman will again undertake and complete the customer communication requirement prior to 31 March 2006.

Network Tasman is required under Section 7(1) (a) (iii) of the Notice to describe the policies and procedures used to record the SAIDI and SAIFI statistics for the assessment period to 31 March 2005. This information is provided in Appendix 11.

4. DISCLAIMER

The information disclosed in this Threshold Compliance statement has been prepared solely for the purposes of complying with the requirements of the Commerce Act (Electricity Distribution Thresholds) Notice 2004.

The information disclosed relates only to the lines business activities described in the Notice. There are other activities the Company is involved with that are not required to be reported on under the Notice.

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

Dated the 16th May 2005

AUDITOR'S REPORT ON THRESHOLD COMPLIANCE STATEMENTS

APPENDIX 1.

Commerce Act (Electricity Distribution Thresholds) Notice 2004

Assessment Against the Price Path Threshold

Clause 5 (1) (a) The Notional Revenue of a distribution business at each assessment date (calculated in accordance with the numerator of the left-hand side of the following expression) is not to exceed the allowable Notional Revenue of the distribution business under the CPI-X price path at that assessment date (calculated in accordance with the denominator of the left-hand side of the following expression):

Test:	$\frac{NR_{2005}}{R_{2005}} \leq 1$
	$\frac{\$ 17,323,184}{\$ 18,096,384} < 1$
	$0.9573 < 1$
Result:	Threshold is not breached

Clause 5 (1) (b) The notional revenue of a distribution business at any time during an assessment period is not to exceed the greater of the notional revenue of the distribution business at the assessment date on which that assessment period ends and the notional revenue of the distribution business at the previous assessment date under this clause (or, if the previous assessment date is the reference date, under clause 5 of the initial Notice).

Test:	$\frac{R \text{ Max}_{01/04/04 - 31/03/05}}{\text{Max}(R_{2004}, NR_{2005})} \leq 1$
	$\frac{\$ 17,323,184}{\$ 17,869,911} < 1$
	$0.9694 < 1$
Result:	Threshold is not breached

APPENDIX 2.

Commerce Act (Electricity Distribution Thresholds) Notice 2004 Price Path Inputs and Calculations

Clause 5 (1) (a) NR 2005

Notional Revenue for the year ending 31 March 2005		
Term	Description	(\$)
$\sum P_{i,2005} Q_i$	Prices at 31 March 2005 multiplied by 31 March 2003 Base Quantities	25,467,818
K_{2005}	Transmission Charges for year ending 31 March 2005	8,056,703
	Rates for year ending 31 March 2005	9,417
	Electricity Commission Levies for year ending 31 March 2005	78,514
$NR_{2005} = \sum P_{2005} Q_i - K_{2005}$	Notional Revenue for the year ending 31 March 2005	17,323,184

R2004

Maximum Notional Revenue at the reference date which would not have caused the distribution business to breach the price path under the Initial Notice		
Term	Description	(\$)
$\sum P_{i,0} x Q_{i,0}$	Prices at 6 September 2003 multiplied by 31 March 2003 Base Quantities	25,067,980
C_{T2003}	Budget Transmission Charges for year ending 31 March 2004	7,192,569
C_{R2003}	Budget Rates for year ending 31 March 2004	5,500
R_{2004}	Maximum Revenue at 31 March 2004 that would not have caused a breach under the initial Notice	17,869,911

Note: All notation in the table above except R_{2004} comes from the Initial Notice.

Appendix 2 continued

R2005

Allowable Notional Revenue under CPI -X price path		
Term	Description	(\$)
X	X Factor Assigned to Network Tasman	1%
R_{2004}	Maximum Revenue at 31 March 2004 that would not have caused a breach under the initial Notice	17,869,911
$(1 + \Delta CPI_{2005})$	Average change in Consumer Price Index over 2004	1.0229
$(1-X)$	1-X Factor Assigned	0.99
$R_{2005 (1)}$	Allowable Notional Revenue under the CPI-X Price Path for the year ended 31 March 2005	18,096,384
NR_{2005} / R_{2005}	Expression must be less than or equal to 1 to avoid breaching 5(1)(a)	0.9573

(1) For presentation purposes, the CPI index has been rounded to four decimal places, however for the calculation of R2005, the full index (with no rounding) has been applied

ΔCPI_{2005}			
Numerator		Denominator	
$CPI_{Q1,2004}$	1115	$CPI_{Q1,2003}$	1098
$CPI_{Q2,2004}$	1124	$CPI_{Q2,2003}$	1098
$CPI_{Q3,2004}$	1131	$CPI_{Q3,2003}$	1103
$CPI_{Q4,2004}$	1141	$CPI_{Q4,2003}$	1111
Total	4511	Total	4410
ΔCPI_{2005}	2.29%		

Source: Statistics New Zealand All Groups SE9A Index

Appendix 2 continued

Clause 5 (1) (b)

R_{MAX}

Maximum Notional Revenue for the period 1 April 2004 to 31 March 2005.		
Term	Description	(\$)
$\Sigma P_{MAX} Q_i$	Maximum Price Between 1 April 2004 and 31 March 2005 multiplied by 31 March 2003 Base Quantities	25,467,818
K_{2005}	Transmission Charges for year ending 31 March 2005	8,056,703
	Rates Charges for year ending 31 March 2005	9,417
	Electricity Commission Levies for year ending 31 March 2005	78,514
R_{MAX}	Maximum Notional Revenue for 01/04/04 to 31/03/05	17,323,184

Notional Revenue during the period is not to exceed the maximum of the starting and ending Notional Revenue for the period		
Term	Description	(\$)
R_{MAX}	Maximum Notional Revenue for 01/04/04 to 31/03/05	17,323,184
$Max(R_{2004}, NR_{2005})$	Maximum of the Notional Revenue that would not breach the Initial Notice and the Notional Revenue for the year ended 31 March 2005	17,869,911
$R_{MAX} / Max(R_{2004}, NR_{2005})$	If expression is greater than 1, Clause 5 (1) (b) is breached	0.9694

APPENDIX 3.
REVENUE (PQ₁₀) AT 1st 2nd and 3rd ASSESSMENT DATES

Group/Category		NTL Code	P ₂₀₀₃ Q ₁₀ 01/04/2003 to 06/09/2003	P ₂₀₀₄ Q ₁₀ 06/09/2003 to 31/03/2004	P ₂₀₀₅ Q ₁₀ 06/09/2004 to 31/03/2005
VARIABLE CHARGES	1&2	B24	3,890,587	3,890,587	3,924,418
		BDD	519,598	519,598	523,626
		BOP	16,581	16,581	16,857
		DDD	50,169	50,169	50,714
		DST	5,460,737	5,460,737	5,524,234
		WSR	1,155,326	1,155,326	1,191,430
		I24	101,234	101,234	102,660
		IRD	100,687	100,687	101,961
		NITE	209,774	209,774	217,266
		LAP	1,136	1,136	1,148
	1L	DST	61,805	61,805	62,919
		DWS	13,207	13,207	13,867
	2s	B24	11,559	11,559	11,711
		BDD	61,164	61,164	61,893
		BND	3,894	3,894	4,071
		BWS	920	920	956
	3.1	Summer Day	13,295	13,295	13,295
		Summer Night	4,839	4,839	4,839
		Winter Day	21,347	21,347	21,347
		Winter Night	3,877	3,877	3,877
	3.3	Summer Day	373,843	373,843	373,843
		Summer Night	128,065	128,065	128,065
Winter Day		831,789	831,789	831,789	
Winter Night		91,877	91,877	91,877	
3.4	Summer Day	22,793	22,793	22,793	
	Summer Night	10,752	10,752	10,752	
	Winter Day	44,832	44,832	44,832	
	Winter Night	6,791	6,791	6,791	
FIXED CHARGES		OUNM	9,804	9,804	9,804
		CHD	0	0	0
		OSTL	145,645	145,645	145,645
		OTBX	44,676	44,676	44,676
	1	1A	3,101,369	3,101,369	3,101,369
		1A	1,104,746	1,104,746	1,104,746
		1B	504,488	504,488	504,488
		1B	160,381	160,381	160,381
		1B	135,897	135,897	135,897
		1LFC	23,488	23,488	23,488
	2	2	1,231,670	1,231,670	1,231,670
		2s			
		2S	24,211	24,211	24,211
		2SFX	21,000	21,000	21,000
	3.1	Anytime Demand	35,637	35,637	35,637
	3.3 & 3.5	Anytime Demand	106,003	106,003	106,003
	3.4	Anytime Demand	669,368	669,368	669,368
	3 all cats.	Winter Demand	1,350,877	1,350,877	1,350,877
	G6	Fixed Charge	1,506,426	1,491,690	1,653,951
	NEL	Fixed Charge	1,561,113	1,551,347	1,662,071
		New Connections			
		CC	118,703	118,703	118,703
	Total Revenue by period - Σ(PQ₁₀)			\$25,067,980	\$25,043,478

APPENDIX 4 - Schedule of NTL Prices

Fixed/ Variable	Group/ Category	NTL Code	Price P ₂₀₀₃ 06/09/2003	Price P ₂₀₀₅ 31/03/2005	Price Unit	Region (fixed charges)
VARIABLE CHARGES	1&2	B24	5.75	5.80	c/kWh	
		BDD	6.45	6.50	c/kWh	
		BOP	3.00	3.05	c/kWh	
		DDD	4.60	4.65	c/kWh	
		DST	4.30	4.35	c/kWh	
		WSR	1.60	1.65	c/kWh	
		I24	3.55	3.60	c/kWh	
		IRD	3.95	4.00	c/kWh	
		NITE	1.40	1.45	c/kWh	
		LAP	4.75	4.80	c/kWh	
	1L	DST	6.10	6.21	c/kWh	
		DWS	2.20	2.31	c/kWh	
	2s	B24	3.80	3.85	c/kWh	
		BDD	4.20	4.25	c/kWh	
		BND	1.10	1.15	c/kWh	
		BWS	1.25	1.30	c/kWh	
	3.1	Summer Day	0.35	0.35	c/kWh	
		Summer Night	0.33	0.33	c/kWh	
		Winter Day	0.74	0.74	c/kWh	
		Winter Night	0.33	0.33	c/kWh	
3.3 & 3.4	Summer Day	1.11	1.11	c/kWh		
	Summer Night	1.01	1.01	c/kWh		
	Winter Day	3.44	3.44	c/kWh		
	Winter Night	1.01	1.01	c/kWh		
3.5	Summer Day	0.80	0.80	c/kWh		
	Summer Night	0.80	0.80	c/kWh		
	Winter Day	2.50	2.50	c/kWh		
	Winter Night	0.80	0.80	c/kWh		
FIXED CHARGES	0	0UNM	34.0	34.0	c/icp per day	All GXP
		CHD	0.0	0.0	nil	All GXP
		0STL	28.39	28.39	c/W/yr	All GXP
		0TBX	90	90	c/day	All GXP
	1	1A	45.00	45.00	c/icp/day	Stoke
		1A	45.00	45.00	c/icp/day	Motueka
		1B	52.00	52.00	c/icp/day	Motupipi
		1B	52.00	52.00	c/icp/day	Murchison
		1B	52.00	52.00	c/icp/day	Kikiwa
		1LFC	15.0	15.0	c/icp/day	All GXP
	2	2	14.77	14.77	\$/kVA/pa	All GXP
	2s	2S	24.96	24.96	\$/kVA/pa	All GXP
		2SFX	3,000	3,000	\$/icp/yr	All GXP
	3.1	Anytime	16.56	16.56	\$/kVA/pa	All GXP
	3.3 & 3.5	Anytime	23.16	23.16	\$/kVA/pa	All GXP
	3.4	Anytime	24.72	24.72	\$/kVA/pa	All GXP
3 All Cats	Winter	45.57	45.57	\$/kVA/pa	All GXP	
G6 NEL		1,506,426	1,653,951	Annual Charge	Stoke	
		1,561,113	1,662,071	Annual Charge	Stoke	
New Connections	CC	5.170	5.170	\$/kVA-km	All GXP	

All excluding GST

APPENDIX 5. Base Quantities (Qi0) as at 31 March 2003

Fixed/ Variable	Group/Category	NTL Code/ description	Quantity Qi ₀	Quantity Unit
VARIABLE CHARGES	1&2	B24	67,662,386	kWh
		BDD	8,055,784	kWh
		BOP	552,700	kWh
		DDD	1,090,623	kWh
		DST	126,993,886	kWh
		WSR	72,207,890	kWh
		I24	2,851,670	kWh
		IRD	2,549,032	kWh
		NITE	14,983,869	kWh
	LAP	23,914	kWh	
	1L	DST	1,013,195	kWh
		DWS	600,311	kWh
	2s	B24	304,190	kWh
		BDD	1,456,297	kWh
		BND	353,989	kWh
		BWS	73,568	kWh
	3.1	Summer Day	3,798,540	kWh
		Summer Night	1,466,453	kWh
		Winter Day	2,884,687	kWh
		Winter Night	1,174,881	kWh
	3.3 & 3.4	Summer Day	33,679,549	kWh
		Summer Night	12,679,678	kWh
		Winter Day	24,179,912	kWh
		Winter Night	9,096,718	kWh
3.5	Summer Day	2,849,108	kWh	
	Summer Night	1,344,024	kWh	
	Winter Day	1,793,286	kWh	
	Winter Night	848,882	kWh	
FIXED CHARGES	0	OUNM	79	icp
		CHD	59	icp
		OSTL	513,014	W
		OTBX	136	icp
	1	1A	18,882	icp
		1A	6,726	icp
		1B	2,658	icp
		1B	845	icp
		1B	716	icp
		1LFC	429	icp
	2	2	83,390	kVA
	2s	2S	970	kVA
		2SFX	7	icp
	3.1	Anytime	2,152	kVA
	3.3 & 3.5	Anytime	4,577	kVA
	3.4	Anytime	27,078	kVA
	3 All Cats	Winter	29,644	kVA
	G6			Annual Fixed Charge
	NEL			Annual Fixed Charge
	New Connections	CC	22,960	kVA-km

Appendix 5 Continued

Note: Consolidation of G1&2 Variable tariffs

NTL has reduced the number of variable tariffs for standard Group 1&2 customers by:

1. Making variable tariff rates for Group 1 and 2 the same. Eg the B24 rate for Group 1 and 2 is now equal, so the above quantity is the sum of what was disclosed for B24 Group1 and B24 Group 2.
2. Consolidating all night tariffs into a single tariff (NITE) and rate, and the Business and Domestic water heating tariffs to a single rate (WSR).

Current Tariffs for Group 1&2.

VARIABLE CHARGES	1&2	B24	67,662,386	
		BDD	8,055,784	
		BOP	552,700	
		DDD	1,090,623	
		DST	126,993,886	
		WSR	72,207,890	was: BWS, DWS, now is WSR for both Group 1&2
		I24	2,851,670	
		IRD	2,549,032	
		NITE	14,983,869	was: BND,BNO,DND,DNO,IRN for both Group 1&2
		LAP	23,914	

Previous tariff schedule of Quanties consolidated to above table.

Price	Group	Code	Quantity	unit	New Code
VARIABLE CHARGES	1	B24	20,021,702	kWh	B24
		BDD	655,101	kWh	BDD
		BND	418,402	kWh	NITE
		BNO	503,881	kWh	NITE
		BOP	145,973	kWh	BOP
		BWS	2,492,690	kWh	WSR
		DDD	532,756	kWh	DDD
		DND	345,051	kWh	NITE
		DNO	7,576,185	kWh	NITE
		DST	123,645,084	kWh	DST
		DWS	64,031,861	kWh	WSR
		I24	1,378,942	kWh	I24
		IRD	190,191	kWh	IRD
	IRN	124,945	kWh	NITE	
	LAP	23,914	kWh	LAP	
	2	B24	47,640,684	kWh	B24
		BDD	7,400,683	kWh	BDD
		BND	3,484,943	kWh	NITE
		BNO	714,238	kWh	NITE
		BOP	406,727	kWh	BOP
		BWS	4,670,060	kWh	WSR
		DDD	557,867	kWh	DDD
		DND	344,364	kWh	NITE
DNO		309,228	kWh	NITE	
DST		3,348,802	kWh	DST	
DWS	1,013,279	kWh	WSR		
I24	1,472,728	kWh	I24		
IRD	2,358,841	kWh	IRD		
IRN	1,162,632	kWh	NITE		
LAP	0	kWh	LAP		
Total kWh			296,971,753		

APPENDIX 6. PASS THROUGH CUSTOMER TRANSMISSION REVENUE

Year 2004-2005	Transmission		LRR	Total Rev
	Connection & NIA	Interconn		
3 Major Customers	492,722	2,707,414	(270,914)	2,929,222
Total	492,722	2,707,414	(270,914)	2,929,222

APPENDIX 7. ALL TRANSMISSION COSTS

TRANSMISSION COSTS	
1. Payments to Transpower NZ for Transmission	7,805,364
2. Avoided Transmission Costs - Payments to Embedded Generators	17,674
3. Avoided Transmission Costs Mpi substation purchase	225,297
4. Avoided Transmission Costs - NTL Diesel Generator	8,367
Total Transmission Cost for YE 31 March 2005	8,056,703

APPENDIX 8. Avoided Transmission Charges

AVOIDED TRANSMISSION COSTS	
1. Payments to Embedded Generators	17,674
2. Benefit from MPI substation ownership	225,297
3. Benefit of NTL Diesel Generator	8,367
Total Avoided Transmission Costs for YE March 2005	251,338

APPENDIX 9. Electricity Commission Levies and Local Body Rates Summary

Rates & Electricity Commission Levies	
	Amount
Network Rates	9,416.86
Electricity Commission Levies	78,514.41
Total Rates and Levies Paid for YE March 2005	87,931.27

APPENDIX 10.

Commerce Act (Electricity Distribution Thresholds) Notice 2004

Assessment Against the Quality Threshold

Clause 6 (1) (a) Interruption Duration (Class B&C)

Test:	$SAIDI_{2005} \leq \left(\frac{SAIDI_{1999} + SAIDI_{2000} + SAIDI_{2001} + SAIDI_{2002} + SAIDI_{2003}}{5} \right)$		
Result:	146.34	<	147.45
Result:	SAIDI does not breach threshold		

Clause 6 (1) (b) Interruption Frequency (Class B&C)

Test:	$SAIFI_{2005} \leq \left(\frac{SAIFI_{1999} + SAIFI_{2000} + SAIFI_{2001} + SAIFI_{2002} + SAIFI_{2003}}{5} \right)$		
Result:	1.71	<	2.12
Result:	SAIFI does not breach the threshold		

APPENDIX 10 Continued.

**Commerce Act (Electricity Distribution Thresholds) Notice 2004
Quality Inputs and Calculations:**

Year	SAIDI (Interruption Duration)			SAIFI (Interruption Frequency)		
	Class B	Class C	Total	Class B	Class C	Total
1999	80.45	188.39	268.84	0.57	3.22	3.79
2000	62.31	121.06	183.37	0.65	2.01	2.67
2001	34.90	70.24	105.14	0.29	1.34	1.63
2002	21.43	49.45	70.87	0.13	0.87	1.01
2003	16.97	92.03	109.01	0.20	1.32	1.51
	Five Year Average SAIDI		147.4	Five Year Average SAIFI		2.12
2005	28.04	118.30	146.34	0.23	1.48	1.71

Note: The SAIDI and SAIFI figures shown for 199-2003 differ slightly from those previously disclosed by Network Tasman in the New Zealand Gazette. The figures have been restated using average ICP's for the calculation of SAIDI and SAIFI.

Appendix 11.

NETWORK TASMAN

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 Gooder, 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:

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

Planned and unplanned events use essentially the same recording process however by nature, planned interruptions can be identified to a set of consumers and a known area in advance.

The total customer minutes for a planned interruption are thus calculated using the following formula:

Total No. of customers interrupted x (Time Interrupted Area restored – 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 (Shutdown or Fault)
6. Area Class (Urban or Rural)
7. Fault Class (Overhead or Underground)
8. Fault Voltage (6.6, 11, 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 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.