

networktasman

Your consumer-owned electricity distributor

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NETWORK TASMAN LIMITED

DEFAULT PRICE-QUALITY PATH COMPLIANCE STATEMENT

Assessment for Year ended 31 March 2016 (Assessment Period One)

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

Dated 8th June 2016

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1 Directors' Certification

Default Price-Quality Path Compliance Statement

Year Ended 31 March 2016

We, M.J. PITCHER and Sarah Jane Wain, 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 *Electricity Distribution Services Default Price-Quality Path Determination 2015* are true and accurate.

M.J. Pitcher

Director

Sarah Jane Wain

Director

Dated: 8th June 2016

2 Default Price-Quality Path Compliance Statement

a). Background

Network Tasman Limited (NTL) is a Non Exempt Electricity Distribution Business as defined in section 54G of the Commerce Act 1986 and consequently is subject to Default Price-Quality Regulation. This statement provides an assessment of NTL's compliance with the requirements of the Electricity Distribution Services Default Price-Quality Path Determination 2015 (the **DPP Determination 2015**) for the year ended 31 March 2016.

b). Information

The audited information NTL has included in this statement has been prepared specifically to comply with the requirements of Clauses 8-11 of the DPP Determination 2015. This audited information includes:

- NTL's schedule of prices for 2015/2016 (Appendix 1)
- Allowable notional revenue compared with notional revenue, distribution prices and quantities (Appendix 2)
- Pass through revenue calculations (Appendix 3)
- Calculation of pass-through balance (Appendix 4)
- Applicability of recoverable costs for 2015/16 DPP compliance (Appendix 5)
- Pass-through and recoverable costs used to set prices (Appendix 6)
- Reliability data and assessment (Appendix 7)
- Two previous annual reliability assessments (Appendix 8)
- Reliability recording policies and procedures (Appendix 9)

c). Price Path Compliance

Network Tasman Limited **fully complies with the default price pathway** requirements specified in Clause 8 of the DPP Determination 2015 for the year to 31 March 2016. The following test confirms NTL's compliance.

Test: Clause 8.3 of the DPP Determination 2015

The Notional Revenue for a Non-exempt EDB (NTL) in the Assessment Period for the year to 31 March 2016 must not exceed the allowable notional revenue for the Assessment Period:

Test per Clause 8.3:	NR < ANR
Where:	NR = Notional Revenue ANR = Allowable Notional Revenue
ANR _{2015/16}	\$27,811,108
NR _{2015/16}	\$27,777,146
Result:	NR does not exceed ANR

This test confirms NTL compliance with the Default Price Path. Actual Notional Revenue NR_{2016} was \$33,962 less than the Allowable Notional Revenue R_{2016} for the Assessment Period ended 31 March 2016. The supporting evidence for the test above is provided in Appendices 1 and 2. NTL's schedule of distribution prices is contained in Appendix 1. Calculation of the allowable notional revenue and notional revenue is in Appendix 2.

Notional Revenue in the DPP compliance assessment includes all revenue NTL has derived 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
- Network development levies and connection fees charged to new electrical loads at the time of their connection to Network Tasman Limited's distribution network.
- Application fees for Small Scale Distributed Generation (SSDG)

The Allowable Notional Revenue for the year to 31 March 2016 was calculated using the following formula set out in Schedule 3A of the DPP Determination 2015:

$$ANR_i = MAR_i / \Delta D$$

The DPP Determination 2015 specifies that the starting price for Network Tasman is:

$$MAR_{2015/16} \text{ (Maximum Allowable Revenue)} = \$28,092,000$$

$$\Delta D = 1.0101$$

This implies that $ANR_{2015/16} = \$27,811,108$

d). Quality Standard Compliance

Network Tasman Limited **fully complies with the default quality standard** in Clause 9 of *Determination 2015* for the assessment period ended 31 March 2016. In particular:

- NTL's assessed SAIDI value has not exceeded the SAIDI Limit
- NTL's assessed SAIFI value has not exceeded the SAIFI Limit

Under Clause 9 of the DPP Determination 2015, to comply for Assessment One, NTL must either:

- Under 9.1a, comply with the annual reliability assessment; or
- Under 9.1b, have complied with the annual reliability assessments in each of the preceding Assessment periods.

The following test confirms NTL's compliance under 9.1a.

Figure 1: Quality standards compliance with clause 9.1a of the DPP Determination 2015

Test per 9.1a:	
SAIDI Assessed Value ≤ SAIDI Limit recalculated in accordance with Schedule 4B	
Assessed Value	136.309
SAIDI Limit	157.792
SAIDI complies with assessment	
SAIFI Assessed Value ≤ SAIFI Limit recalculated in accordance with Schedule 4B	
Assessed Value	1.287
SAIFI Limit	1.676
SAIFI complies with assessment	

NTL's annual reliability assessments for the previous two periods are contained in Appendix 8 which demonstrates that 9.1b of the DPP Determination 2015 is also satisfied.

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e). Transactions compliance

On 1 December 2014, NTL acquired from Transpower the 66kV transmission line to the Cobb hydro-electric power station and connection assets at Motueka and Golden Bay. As per clause 10.6 of the DPP Determination 2015 relating to the purchase of system fixed assets from Transpower, NTL has recalculated the SAIDI and SAIFI limits contained in Schedule 4A, according to the methodology specified in Schedule 4B in the annual reliability assessment. Details of the recalculations are set out in Appendix 7.

NTL has not undertaken an Amalgamation, Merger or Major Transaction (as defined in the Determination 2015) in the assessment period for the year ended 31 March 2016.

f). Restructure of Prices Compliance

NTL has not undertaken any restructuring of prices in the year to 31 March 2016 that requires specific disclosure and assessment in terms of Clause 11.7 and 11.8 of the DPP Determination 2015.

g). Recoverable Costs and Pass-Through Costs

In accordance with the DPP Determination 2015 the recoverable and pass-through cost categories described below have been included in NTL's Default Price Path calculations. The pass-through balance is calculated in Appendix 4.

i) Recoverable Costs V_{2016} include the following transmission cost categories:

- Charges billed by Transpower
 - i. Connection charges
 - ii. Interconnection charges
 - iii. New Investment charges
- Avoided transmission charges paid to embedded generators
- Avoided Transpower charge liability as a result of a transmission asset acquisition

A list of the recoverable costs described in the Electricity Distribution Services Input Methodologies Determination 2012 (as amended at December 2015), and their applicability to NTL's DPP assessment for the year ended March 2016 is set out in Appendix 5.

ii) Pass Through Costs K_{2016} include the following costs categories:

- Local Authority *Rates* levied on NTL's systems fixed assets including lines, cables, electrical equipment and substation land and buildings.
- Electricity Authority *Levies* for the regulatory costs allocated to all 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 all EDB's under an industry levy formula determined by government.
- Electricity and Gas Complaints Commission *Levies* for funding the contribution all EDB's make towards the independent electricity and gas industry complaints resolution scheme.

A comparison of actual pass through and recoverable costs with those used to set prices is set out in Appendix 6.

h). Methodology used to calculate prices

Distribution prices

Distribution prices for the previous year (2014/15) were multiplied by the quantities for 2013/14 (ie, 2 year lagged quantities). This calculation showed what the notional revenue would be if prices remained constant. The resulting notional revenue exceeded the allowable notional revenue and therefore a price reduction was required. A percentage reduction was applied to 2014/15 prices to solve for an outcome where the notional revenue was close to (but slightly below) allowable notional revenue.¹

Pass-through Prices

Budgeted quantities for 2015/16 were set using analysis of historic trends as well as expectations regarding future growth. Prices for Group 6, NEL and Embedded Generation were set directly through calculation of the transmission charges attributable to those consumers. Budgeted quantities for other customers were then multiplied by transmission prices from the previous year and the resulting revenue from all customers was compared with the sum of pass-through and recoverable costs. It was found that the pass-through revenue using 2014/15 prices would exceed the estimated pass-through and recoverable costs. A price reduction was applied to Groups 0,1,2 and 3 to solve for an outcome where the pass-through revenue was approximately equal to pass-through and recoverable costs.

i). Network Tasman SAIDI & SAIFI Policies and Procedures

NTL is required under Clause 11.5 (e) of the Determination 2015 to describe the policies and procedures used to record the SAIDI and SAIFI statistics for the Assessment Period ended 31 March 2016. This information is provided in Appendix 9.

3 Disclaimer

The information disclosed by Network Tasman Limited in this Default Price-Quality Path Compliance Statement 2016 has been prepared solely for the purposes of complying with the requirements of the *Commerce Act 1986* and the Determination 2015.

The information in this compliance statement relates only to the lines business activities covered by the DDP Determination 2015. NTL is involved in other activities that are not required to be reported on under the Determination.

The information in this compliance statement has not been prepared for any other purpose than that required by the Determination 2015 and Network Tasman Limited expressly disclaims any liability to any party who may rely on this information for any other purpose.

Dated: 8th June 2016.

¹ It is noted that while overall prices were reduced, there was a rebalancing between the fixed and variable components for Group 2 ICPs – ie, the fixed charge was increased and the variable charge decreased.

4 Independent Audit Report



Appendix 1: Schedule of NTL prices for 2015/16

The following table sets out for each price during the year ended 31 March 2016, the total price, the distribution portion of the price and the pass-through portion of the price, as required by clause 11.4(d) of the DPP Determination 2015.

Price Code/ description	Pricing units	Distribution Prices	Pass Through Price	Total Price
Streetlights (Watts)	c/W/day	0.08	0.04	0.12
OUNM count	c/day	35.00	18.00	53.00
OTBS count	c/day	0.00	0.00	0.00
1	c/day	11.85	3.15	15.00
2LLFC	c/day	11.85	3.15	15.00
2HLFC	c/day	11.85	3.15	15.00
2	c/kVA/day	3.68	1.50	5.18
HLF	c/kVA/day	31.24	8.61	39.85
1ANY	c/kWh	6.17	2.98	9.15
1DAY	c/kWh	6.78	3.29	10.07
1OPK	c/kWh	4.84	2.28	7.12
1NIT	c/kWh	2.04	1.01	3.05
1WSR	c/kWh	2.87	1.35	4.22
2ANY	c/kWh	5.87	2.20	8.07
2DAY	c/kWh	6.45	2.44	8.89
2NIT	c/kWh	1.94	0.74	2.68
2OPK	c/kWh	4.61	1.69	6.30
2WSR	c/kWh	2.72	1.01	3.73
2LANY	c/kWh	8.81	3.30	12.11
2LDAY	c/kWh	9.38	3.55	12.93
2LNIT	c/kWh	4.86	1.86	6.72
2LOPK	c/kWh	7.57	2.77	10.34
2LWSR	c/kWh	5.67	2.10	7.77
2HANY	c/kWh	12.24	4.59	16.83
2HDAY	c/kWh	12.81	4.84	17.65
2HNIT	c/kWh	8.28	3.16	11.44
2HOPK	c/kWh	11.02	4.04	15.06
2HWSR	c/kWh	9.11	3.38	12.49
HLFANY	c/kWh	1.67	0.60	2.27
HLFDAY	c/kWh	1.81	0.66	2.47
HLFNIT	c/kWh	0.52	0.19	0.71
HLFOPK	c/kWh	1.30	0.47	1.77
HLFWSR	c/kWh	0.75	0.27	1.02
GENA	c/kWh	0.00	0.00	0.00
Cat 3.1 Summer Day	c/kWh	0.44	0.00	0.44
Cat 3.1 Summer Night	c/kWh	0.24	0.00	0.24
Cat 3.1 Winter Day	c/kWh	0.79	0.00	0.79

Price Code/ description	Pricing units	Distribution Prices	Pass Through Price	Total Price
Cat 3.1 Winter Night	c/kWh	0.24	0.00	0.24
Cat 3.1 RCPD	\$/kW/day	0.0319	0.3017	0.3336
Cat 3.1 Anytime	\$/kVA/day	0.0901	0.0331	0.1232
Cat 3.3 Summer Day	c/kWh	1.35	0.00	1.35
Cat 3.3 Summer Night	c/kWh	0.71	0.00	0.71
Cat 3.3 Winter Day	c/kWh	3.45	0.00	3.45
Cat 3.3 Winter Night	c/kWh	0.71	0.00	0.71
Cat 3.3 RCPD	\$/kW/day	0.0319	0.3017	0.3336
Cat 3.3 Anytime	\$/kVA/day	0.1164	0.0331	0.1495
Cat 3.4 Summer Day	c/kWh	1.35	0.00	1.35
Cat 3.4 Summer Night	c/kWh	0.71	0.00	0.71
Cat 3.4 Winter Day	c/kWh	3.45	0.00	3.45
Cat 3.4 Winter Night	c/kWh	0.71	0.00	0.71
Cat 3.4 RCPD	\$/kW/day	0.0319	0.3017	0.3336
Cat 3.4 Anytime	\$/kVA/day	0.1242	0.0331	0.1573
Cat 3.5 Summer Day	c/kWh	0.91	0.00	0.91
Cat 3.5 Summer Night	c/kWh	0.57	0.00	0.57
Cat 3.5 Winter Day	c/kWh	2.95	0.00	2.95
Cat 3.5 Winter Night	c/kWh	0.57	0.00	0.57
Cat 3.5 RCPD	\$/kW/day	0.0319	0.3017	0.3336
Cat 3.5 Anytime	\$/kVA/day	0.1164	0.0331	0.1495
G3 Reactive Charge	c/kVar/day	0.2545	0.0000	0.2545
Cat 6.2	\$/year	229,973.00	332,640.66	562,613.66
Cat 6.1	\$/year	214,575.00	1,764,100.46	1,978,675.46
Embedded Generator	\$/year	1,307,761	317,121	1,624,882
Nelson Electricity	\$/year	0	2,170,481	2,170,481
New Connections				
NCA Admin G0	\$/ICP	125.00	0.00	125.00
NCA Admin G1	\$/ICP	250.00	0.00	250.00
NCA Admin G2	\$/ICP	325.00	0.00	325.00
NCA Admin G3	\$/ICP	400.00	0.00	400.00
Small Scale Generation Application Fees				
SSDG < 10kW	\$/SSDG	100.00	0.00	100.00
SSDG > 10kW	\$/SSDG	200.00	0.00	200.00
Network Development Levy				
NDL - Group 1 uncapped	kVA*km	7.44	0.00	7.44
NDL - Group 1 Capped	\$/ICP	3,250.00	0.00	3,250.00
NDL - Group 2	kVA*km	18.32	0.00	18.32
NDL Subdivision	\$/ICP	2,170.75	0.00	2,170.75

Appendix 2: Allowable notional revenue and notional revenue for year to 31 March 2016

Allowable Notional Revenue for Assessment One	
MAR ₂₀₁₅₋₁₆ starting price:	\$28,092,000
ΔD:	1.0101
ANR _{2015/16}	\$27,811,108
Notional Revenue	
Calculated using 2015/16 Distribution Prices (DP ₂₀₁₆) and Quantities for 2013/4 (Q ₂₀₁₄)	\$27,777,146

Table 1: Calculation of Notional Revenue

Price Code Description	Quantity Units	Price Units	Q ₂₀₁₄	DP ₂₀₁₆	Revenue
Streetlights (Watts)	Watts	c/W/day	715,770	0.08	\$206,392
OUNM count	ICPs	c/day	97	35.00	\$12,392
OTBS count	ICPs	c/day	100	0.00	\$0
1	ICPs	c/day	34,513	11.85	\$1,492,774
2LLFC	ICPs	c/day	22	11.85	\$952
2HLFC	ICPs	c/day	1	11.85	\$43
2	kVA	c/kVA/day	115,447	3.68	\$1,550,684
HLF	kVA	c/kVA/day	2,745	31.24	\$313,001
1ANY	kWh	c/kWh	167,870,225	6.17	\$10,357,593
1DAY	kWh	c/kWh	1,570,581	6.78	\$106,485
1OPK	kWh	c/kWh	338,783	4.84	\$16,397
1NIT	kWh	c/kWh	4,696,983	2.04	\$95,818
1WSR	kWh	c/kWh	59,946,651	2.87	\$1,720,469
2ANY	kWh	c/kWh	64,650,535	5.87	\$3,794,986
2DAY	kWh	c/kWh	17,401,258	6.45	\$1,122,381
2NIT	kWh	c/kWh	7,315,413	1.94	\$141,919
2OPK	kWh	c/kWh	212,064	4.61	\$9,776
2WSR	kWh	c/kWh	3,785,014	2.72	\$102,952
2LANY	kWh	c/kWh	87,378	8.81	\$7,697
2LDAY	kWh	c/kWh	10,306	9.38	\$967
2LNIT	kWh	c/kWh	12,147	4.86	\$591
2LOPK	kWh	c/kWh	0	7.57	\$0
2LWSR	kWh	c/kWh	19,549	5.67	\$1,108
2HANY	kWh	c/kWh	3,105	12.24	\$380
2HDAY	kWh	c/kWh	0	12.81	\$0
2HNIT	kWh	c/kWh	0	8.28	\$0
2HOPK	kWh	c/kWh	0	11.02	\$0
2HWSR	kWh	c/kWh	0	9.11	\$0
HLFANY	kWh	c/kWh	3,631,130	1.67	\$60,640

Price Code Description	Quantity Units	Price Units	Q ₂₀₁₄	DP ₂₀₁₄	Revenue
HLFDAY	kWh	c/kWh	3,625,530	1.81	\$65,622
HLFNIT	kWh	c/kWh	1,334,612	0.52	\$6,940
HLFOPK	kWh	c/kWh	6,162	1.30	\$80
HLFWSR	kWh	c/kWh	78,960	0.75	\$592
GENA	kWh	c/kWh	536,938	0.00	\$0
Cat 3.1 Summer Day	kWh	c/kWh	4,666,401	0.44	\$20,532
Cat 3.1 Summer Night	kWh	c/kWh	1,976,403	0.24	\$4,743
Cat 3.1 Winter Day	kWh	c/kWh	3,251,489	0.79	\$25,687
Cat 3.1 Winter Night	kWh	c/kWh	1,338,549	0.24	\$3,213
Cat 3.1 RCPD \$/kW/day	kW	\$/kW/day	1,495	0.0319	\$17,407
Cat 3.1 Anytime \$/kVA day	kVA	\$/kVA/day	2,455	0.0901	\$80,736
Cat 3.3 Summer Day	kWh	c/kWh	3,817,961	1.35	\$51,542
Cat 3.3 Summer Night	kWh	c/kWh	1,642,324	0.71	\$11,661
Cat 3.3 Winter Day	kWh	c/kWh	1,617,131	3.45	\$55,791
Cat 3.3 Winter Night	kWh	c/kWh	672,479	0.71	\$4,775
Cat 3.3 RCPD \$/kW/day	kW	\$/kW/day	984	0.0319	\$11,457
Cat 3.3 Anytime \$/kVA day	kVA	\$/kVA/day	1,647	0.1164	\$69,974
Cat 3.4 Summer Day	kWh	c/kWh	43,149,710	1.35	\$582,521
Cat 3.4 Summer Night	kWh	c/kWh	14,633,604	0.71	\$103,899
Cat 3.4 Winter Day	kWh	c/kWh	31,354,597	3.45	\$1,081,734
Cat 3.4 Winter Night	kWh	c/kWh	10,929,030	0.71	\$77,596
Cat 3.4 RCPD \$/kW/day	kW	\$/kW/day	13,507	0.0319	\$157,269
Cat 3.4 Anytime \$/kVA day	kVA	\$/kVA/day	38,432	0.1242	\$1,742,238
Cat 3.5 Summer Day	kWh	c/kWh	5,563,136	0.91	\$50,625
Cat 3.5 Summer Night	kWh	c/kWh	2,498,513	0.57	\$14,242
Cat 3.5 Winter Day	kWh	c/kWh	4,587,580	2.95	\$135,334
Cat 3.5 Winter Night	kWh	c/kWh	2,080,159	0.57	\$11,857
Cat 3.5 RCPD \$/kW/day	kW	\$/kW/day	1,875	0.0319	\$21,832
Cat 3.5 Anytime \$/kVA day	kVA	\$/kVA/day	3,572	0.1164	\$151,760
G3 Reactive Charge	kVAr	c/kVAr/day	88	0.2545	\$8,175
Cat 6.2	ICP	\$/year	1	229,973.00	\$229,973
Cat 6.1	ICP	\$/year	1	214,575.00	\$214,575
Embedded Generator		\$/year	1	1,307,761	\$1,307,761
Nelson Electricity		\$/year	1	0	\$0
NCA Admin G0	ICP	\$/ICP	1	125.00	\$125
NCA Admin G1	ICP	\$/ICP	494	250.00	\$123,500
NCA Admin G2	ICP	\$/ICP	39	325.00	\$12,675
NCA Admin G3	ICP	\$/ICP	7	400.00	\$2,800
SSDG < 10kW	SSDG	\$/SSDG	115	100.00	\$11,500
SSDG > 10kW	SSDG	\$/SSDG	5	200.00	\$1,000
NDL - Group 1 uncapped	kVA*km	\$/kVA*km	7,485	7.44	\$55,710
NDL - Group 1 Capped	ICP	\$/ICP	6	3,250.00	\$19,500
NDL - Group 2	kVA*km	\$/kVA*km	5,155	18.32	\$94,431

Price Code Description	Quantity Units	Price Units	Q ₂₀₁₄	DP ₂₀₁₄	Revenue
NDL Subdivision	ICP	\$/ICP	8	2,170.75	\$17,366
Total Notional Revenue NR					\$27,777,146

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Appendix 3: Pass-through revenue calculations

The calculation of pass-through revenue is contained in the following table in which 2015/16 pass-through prices (PTP₂₀₁₆) are multiplied by 2015/16 quantities (Q₂₀₁₆).

Table 2: Calculation of Pass-through revenue

PriceCode/Description	Quantity Units	Price Units	Q ₂₀₁₆	Pass Through Price	PTP ₂₀₁₆ Q ₂₀₁₆
Streetlights (Watts)	Watts	c/W/day	645,064	0.04	\$87,116
OUNM count	ICPs	c/day	88	18.00	\$5,810
OTBS count	ICPs	c/day	(1.6)	0.00	\$0
1	ICPs	c/day	35,332	3.15	\$406,231
2LLFC	ICPs	c/day	27	3.15	\$310
2HLFC	ICPs	c/day	1	3.15	\$12
2	kVA	c/kVA/day	120,400	1.50	\$659,192
HLF	kVA	c/kVA/day	3,081	8.61	\$96,836
1ANY	kWh	c/kWh	171,641,154	2.98	\$5,114,906
1DAY	kWh	c/kWh	1,676,673	3.29	\$55,163
1OPK	kWh	c/kWh	385,658	2.28	\$8,793
1NIT	kWh	c/kWh	4,385,673	1.01	\$44,295
1WSR	kWh	c/kWh	59,429,405	1.35	\$802,297
2ANY	kWh	c/kWh	65,875,871	2.20	\$1,449,269
2DAY	kWh	c/kWh	17,845,535	2.44	\$435,431
2NIT	kWh	c/kWh	7,725,947	0.74	\$57,172
2OPK	kWh	c/kWh	249,928	1.69	\$4,224
2WSR	kWh	c/kWh	3,720,023	1.01	\$37,572
2LANY	kWh	c/kWh	104,831	3.30	\$3,461
2LDAY	kWh	c/kWh	20,621	3.55	\$732
2LNIT	kWh	c/kWh	13,630	1.86	\$253
2LOPK	kWh	c/kWh	0	2.77	\$0
2LWSR	kWh	c/kWh	33,810	2.10	\$711
2HANY	kWh	c/kWh	2,350	4.59	\$108
2HDAY	kWh	c/kWh	0	4.84	\$0
2HNIT	kWh	c/kWh	0	3.16	\$0
2HOPK	kWh	c/kWh	0	4.04	\$0
2HWSR	kWh	c/kWh	0	3.38	\$0
HLFANY	kWh	c/kWh	4,333,751	0.60	\$26,003
HLFDAY	kWh	c/kWh	3,846,056	0.66	\$25,384
HLFNIT	kWh	c/kWh	1,588,719	0.19	\$3,019
HLFOPK	kWh	c/kWh	0	0.47	\$0
HLFWSR	kWh	c/kWh	39,756	0.27	\$107
GENA	kWh	c/kWh	1,596,291	0.00	\$0
Cat 3.1 Summer Day	kWh	c/kWh	4,409,306	0.00	\$0
Cat 3.1 Summer Night	kWh	c/kWh	1,899,010	0.00	\$0
Cat 3.1 Winter Day	kWh	c/kWh	2,949,278	0.00	\$0

PriceCode/Description	Quantity Units	Price Units	Q ₂₀₁₆	Pass Through Price	PTB ₂₀₁₆ Q ₂₀₁₆
Cat 3.1 Winter Night	kWh	c/kWh	1,247,682	0.00	\$0
Cat 3.1 RCPD	kW	\$/kW/day	1,674	0.3017	\$184,295
Cat 3.1 Anytime	kVA	\$/kVA/day	2,411	0.0331	\$29,133
Cat 3.3 Summer Day	kWh	c/kWh	3,965,639	0.00	\$0
Cat 3.3 Summer Night	kWh	c/kWh	1,786,490	0.00	\$0
Cat 3.3 Winter Day	kWh	c/kWh	2,040,854	0.00	\$0
Cat 3.3 Winter Night	kWh	c/kWh	814,646	0.00	\$0
Cat 3.3 RCPD	kW	\$/kW/day	1,106	0.3017	\$121,796
Cat 3.3 Anytime	kVA	\$/kVA/day	2,228	0.0331	\$26,922
Cat 3.4 Summer Day	kWh	c/kWh	44,552,106	0.00	\$0
Cat 3.4 Summer Night	kWh	c/kWh	15,824,671	0.00	\$0
Cat 3.4 Winter Day	kWh	c/kWh	33,887,051	0.00	\$0
Cat 3.4 Winter Night	kWh	c/kWh	12,367,943	0.00	\$0
Cat 3.4 RCPD	kW	\$/kW/day	16,310	0.3017	\$1,796,057
Cat 3.4 Anytime	kVA	\$/kVA/day	39,440	0.0331	\$476,491
Cat 3.5 Summer Day	kWh	c/kWh	5,364,592	0.00	\$0
Cat 3.5 Summer Night	kWh	c/kWh	2,394,227	0.00	\$0
Cat 3.5 Winter Day	kWh	c/kWh	4,388,832	0.00	\$0
Cat 3.5 Winter Night	kWh	c/kWh	2,009,700	0.00	\$0
Cat 3.5 RCPD	kW	\$/kW/day	1,880	0.3017	\$207,042
Cat 3.5 Anytime	kVA	\$/kVA/day	3,858	0.0331	\$46,614
G3 Reactive Charge	kVAr	c/kVAr/day	158	0.0000	\$0
Cat 6.2	ICP	\$/year	1	332,640.66	\$332,641
Cat 6.1	ICP	\$/year	1	1,764,100.46	\$1,764,100
Embedded Generator		\$/year	1	317,121	\$317,121
Nelson Electricity		\$/year	1	2,170,481	\$2,170,481
NCA Admin G0	ICP	\$/ICP	0	0.00	\$0
NCA Admin G1	ICP	\$/ICP	0	0.00	\$0
NCA Admin G2	ICP	\$/ICP	0	0.00	\$0
NCA Admin G3	ICP	\$/ICP	0	0.00	\$0
SSDG < 10kW	SSDG	\$/SSDG	0	0.00	\$0
SSDG > 10kW	SSDG	\$/SSDG	0	0.00	\$0
NDL - Group 1 uncapped	kVA*km	\$/kVA*km	0	0.00	\$0
NDL - Group 1 Capped	ICP	\$/ICP	0	0.00	\$0
NDL - Group 2	kVA*km	\$/kVA*km	0	0.00	\$0
NDL Subdivisions	ICP	\$/ICP	0	0.00	\$0
ΣPTP2016Q2016					\$16,797,099

Appendix 4: Calculation of Pass-through Balance

PTB = $\sum PTP_{2016} Q_{2016} - K_{2016} - V_{2016} - PTB_{t-1}(1+r)$	
$\sum PTP_{2016} Q_{2016}$ (refer to Appendix 3)	\$16,797,099
K_{2016}	\$330,381
V_{2016}	\$18,854,007
PTB_{t-1}	0
$r =$	6.09%
Pass Through Balance	<u><u>\$(2,387,290)</u></u>

Pass Through and Recoverable Costs	
Pass through K_{2016}	
Commerce Commission Levies YE March 2016	\$53,765
EA Levies YE March 2016 (not passed through to consumers)	\$97,597
Electricity & Gas Commission levies YE March 2016	\$18,441
Local Body Rates YE March 2016	<u>\$160,578</u>
Total Pass Through Costs	\$330,381
Recoverable Costs V_{2016}	
Transpower Transmission Charges for YE March 2016	\$12,044,704
Avoided Transmission Charges (Trustpower and Embedded Generators)	\$2,085,053
Avoided Transmission Allowance (per Appendix 5, subclause 3.1.3.(1) e in IM)	<u>\$4,724,250</u>
Total Recoverable Costs	\$18,854,007

Appendix 5: Applicability of recoverable costs for 2015/16 DPP compliance

The recoverable costs that may be claimed under the DPP are set out in 3.1.3(1) of *Electricity Distribution Services Input Methodologies Determination 2012* as amended and consolidated as of 15 December 2015. An assessment of which of these are relevant to NTL's DPP calculation for the year ended 31 March 2016 is set out in the table below.

Subclause of 3.1.3(1)	Recoverable cost	Applicability to NTL for Assessment One
(a)(i)	IRIS incentive adjustment	Not applicable in the current assessment period.
(a)(ii)	CPP transition	Not applicable.
(b)	Charges payable to Transpower for electricity lines services in respect of the transmission system	Applicable - connection and interconnection charges billed by Transpower.
(c)	Transpower NIA charge	Applicable.
(d)	Charges for System Operator services	Not applicable.
(e)	Transpower charges for transmission and NIA that have been avoided as a result of an acquisition of transmission assets	Applicable as a result of December 2014 acquisition by NTL of transmission assets from Transpower.
(f)	Distributed generation allowance	Applicable – Avoided Cost of Transmission (ACOT) payments.
(g)	Claw-back applied by the Commission.	Not applicable.
(h)-(l)	Relevant to CPP	Not applicable.
(m)	Energy efficiency and demand side management incentive allowance	Not applicable.
(n)	Catastrophic allowance	Not applicable.
(o)	Extended reserves allowance	Not applicable.
(p)	Quality incentive adjustment	Not applicable until 2017/18.
(q)	Capex wash-up adjustment	Not applicable until 2016/17.
(r)	Transmission asset wash-up adjustment	Not relevant because transmission asset acquisition by NTL was completed prior to the commencement of the regulatory period.
(s)	2013-15 NPV wash-up allowance	Not applicable – only relevant to Alpine, Centralines and Top Energy.
(t)	A reconsideration event allowance	Not applicable.

Appendix 6: Pass-through and recoverable costs used to set prices

Pass-through costs used to set prices are those contained in the Budget column of Table 3 below. The budgeted amount for the Commerce Commission Levy was above the actual amount incurred. This is because the budgeted amount was based on the previous year. However, in that previous year EDBs were also able to claim 20% of the Commerce Commission Levy for 2010.

The actual levies relating to the Electricity Authority and the Electricity Gas Complaints Commission were close to what was budgeted.

Local body rates were significantly higher than the budgeted amount. This is because the Tasman District Council introduced a "Utilities Rate", which NTL had not budgeted for.

Table 3: Pass-through costs used to set prices

Pass Through	Budget	Actual
Commerce Commission Levy	\$85,000	\$53,765
Electricity Authority	\$95,000	\$97,597
Electricity Gas Complaints Commission	\$19,000	\$18,441
Local Body Rates	<u>\$44,000</u>	<u>\$160,578</u>
	\$243,000	\$330,381

Recoverable costs used to set prices are those contained in the Budget column of Table 4 below. With regard to the difference between the budget and actual transmission charges, this variation was due to an NIA at Stoke which was assessed as a cost for the whole year however it only applied for part of the year.

With regard to the avoided transmission liability that arose from the transmission acquisition, in setting its pass-through price, NTL took the view that it was appropriate to take up only some of this incentive. Rather than incorporating the full amount of Transpower charges avoided the view was taken that a portion of the avoided interconnection charge rather the total amount of avoided interconnection charges would be a sufficient incentive, balancing the dual objectives of financial viability and the long term benefit of consumers. This lesser amount is reflected in the Budget figure of \$2.16m. However, the Actual amount of \$4.72m reflects the total amount that NTL is entitled to claim as a recoverable cost. The approach taken by NTL in regard to this recoverable cost results in a large negative pass-through balance.

Table 4: Recoverable costs used to set prices

Recoverable Costs V2016	Budget	Actual
Transpower Transmission Charges for YE March 2016	\$12,199,050	\$12,044,704
Avoided Transmission Charges	\$2,085,053	\$2,085,053
Avoided Transmission Allowance	<u>\$2,164,974</u>	<u>\$4,724,250</u>
Total Recoverable Costs	\$16,449,078	\$18,854,007

Appendix 7: Reliability data and assessment – 2015/16

Subsequent to the purchase of system fixed assets from Transpower, a Reference Dataset of interruptions during the reference period as per Schedule 4B 7a was used for recalculations.

Annual reliability assessment (Compliance test) – Assessment One		
a. SAIDI. Assessed value \leq SAIDI Limit	<u>Initial</u>	<u>Recalculation</u>
Assessed Value	136.31	136.31
SAIDI Limit	129.82	157.79
Test	1.05	0.86
b. SAIFI. Assessed value \leq SAIFI Limit		
Assessed Value	1.276	1.287
SAIFI Limit	1.422	1.676
Test	0.897	0.768

Major Event Day – During the first assessment period there was one major event day for SAIFI only. This was on 8 January 2016 and was caused by a failed insulator on a 33kV feeder.

1 Recalculation of Assessed values for test			
Recalculation of Boundary Values		Initial	Recalculation
SAIDI Unplanned Boundary Value		6.93	7.48
SAIFI Unplanned Boundary Value		0.067	0.089
<i>a boundary is the 23rd largest value in reference dataset</i>			
SAIDI_B	Σdaily SAIDI _B values during assessment one	101.61	101.61
SAIDI_C	Σdaily SAIDI _C values during assessment one ⁽¹⁾	85.51	85.51
SAIFI_B	Σdaily SAIFI _B values during assessment one	0.380	0.380
SAIFI_C	Σdaily SAIFI _C values during assessment one ⁽¹⁾	1.086	1.097
<i>Note 1. where any daily value > boundary value, use boundary value</i>			
<i>B = Planned, C = Unplanned</i>			
SAIDI Assessed Value	<i>recalculation=SAIDI_B×0.5+SAIDI_C</i>	136.309	136.309
SAIFI Assessed Value	<i>recalculation=SAIFI_B×0.5+SAIFI_C</i>	1.276	1.287
2 Recalculation of Limits			
Based on new reference dataset with aquired fixed asset outages included			
2.1 Recalculate Targets.		Initial	Recalculation
Daily _{planned}			623.82
Daily _{unplanned}			969.01
SAIDITarget		112.48	128.09
Daily _{planned}			3.094
Daily _{unplanned}			12.260
SAIFITarget		1.230	1.381
<i>Daily planned/unplanned is sum of all values in Reference Dataset</i>			
<i>Recalculated Targets are (DailyPlanned×0.5+DailyUnplanned)/10</i>			
2.2 Recalculate Deviation per 4B			
SAIDIdeviation			1.555
SAIFIdeviation			0.015
2.3 New limits			
SAIDI Limit	<i>Recalculation=(Target+(Sdeviation×√365)</i>	129.82	157.79
SAIFI Limit	<i>Recalculation=(Target+(Sdeviation×√365)</i>	1.422	1.676
3 Recalculation for Quality Incentive			
<i>For information only in Assessment One</i>			
SAIDI Collar	<i>Recalculation=(Target-(Sdeviation×√365)</i>	95.14	98.39
SAIFI Collar	<i>Recalculation=(Target-(Sdeviation×√365)</i>	1.038	1.086
SAIDI Cap	<i>= SAIDI Limit</i>	129.82	157.79
SAIFI Cap	<i>= SAIFI Limit</i>	1.422	1.676

Appendix 8: Two previous annual reliability assessments

The following annual reliability assessments for two previous assessment periods have been extracted from NTL's compliance statements.

Annual Reliability Assessment 2014/15

The quality standards assessments for SAIDI and SAIFI below demonstrate that for the Assessment Period ended 31 March 2015, Network Tasman's:

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

when calculated in accordance with *Clause 9.2 of the Determination 2012*.

Clause 9.2 Interruption Duration (SAIDI Classes B&C) Test 2014/15

Test	$\frac{SAIDI_{Assessed\ 2015}}{SAIDI_{Limit}} \leq 1$
SAIDI _{Assessed 2015}	157.8
SAIDI _{Limit}	162.5
Result	0.9708 < 1
Result	SAIDI Limit has not been exceeded

Clause 9.2 Interruption Frequency (SAIFI Classes B&C) Test 2014/15

Test	$\frac{SAIFI_{Assessed\ 2015}}{SAIFI_{Limit}} \leq 1$
SAIFI _{Assessed 2015}	1.40
SAIFI _{Limit}	1.74
Result	0.8021 < 1
Result	SAIFI Limit has not been exceeded

Annual Reliability Assessment 2013/14

The quality standards assessments for SAIDI and SAIFI below demonstrate that for the Assessment Period ended 31 March 2014, Network Tasman's:

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

when calculated in accordance with *Clause 9.2 of the Determination 2012*.

Clause 9.2 Interruption Duration (SAIDI Classes B&C) Test 2013/14

Test	$\frac{SAIDI_{Assessed\ 2014}}{SAIDI_{Limit}} \leq 1$	
SAIDI _{Assessed 2014}		129.48
SAIDI _{Limit}		162.53
Result		0.7966 < 1
Result.	SAIDI Limit has not been exceeded	

Clause 9.2 Interruption Frequency (SAIFI Classes B&C) Test 2013/14

Test	$\frac{SAIFI_{Assessed\ 2014}}{SAIFI_{Limit}} \leq 1$	
SAIFI _{Assessed 2014}		1.34
SAIFI _{Limit}		1.74
Result		0.7670 < 1
Result	SAIFI Limit has not been exceeded	

Appendix 9: Reliability Recording Policies and Procedures

For the purposes of compiling annual SAIDI and SAIFI data:

- 1) 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
- 2) Only those outages resulting in de-energisation of a high voltage feeder or conductor (6.6kV and above on NTL's network) are included in SAIDI & SAIFI statistics. Outages stemming from low voltage (400V) equipment are excluded.
- 3) Both planned (Class B) and unplanned (Class C) events are included within high voltage outage statistics
- 4) All high voltage outages are managed through Network Tasman's control room by a qualified NTL System Operator
- 5) The Faults and Maintenance Contract between NTL and its faults contractor, Delta, obligates both parties to manage all outage events centrally through the System Operator located in NTL's control room.
- 6) 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 and record keeping.

Under fault conditions, customers affected by operation of a distribution system high voltage protection device can be divided into:

- (a) Those within the core fault area (i.e. who won't have supply restored until the necessary line repairs are completed)
- (b) 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 that relies on the following sequential process for supply restoration:

- (a) Identification, isolation and minimisation of the core fault area.
- (b) Restoration, through switching, of supply to areas not immediately within the core fault area
- (c) 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 (ICPs) 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 rely on essentially the same recording process however by nature, planned interruptions can be identified down to a predetermined set of consumers within 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:

- Date
- ID number of the protective device that has operated (allows identification of the HV feeder and area affected)
- Area: (Text description of area affected)
- Description; (Text description of fault cause and type – recorded once known)
- Outage type (Planned Shutdown or Fault)
- Area Class (Urban or Rural)
- Fault Class (Overhead or Underground)
- Fault Voltage (6.6kV, 11kV, 33kV, 66kV)
- Outage Region (Stoke, Motueka, Golden Bay, Kikiwa, Murchison)
- Time of Initial Interruption
- Time Unfaulted Area Restored
- Time Fault area restored
- Customers (ICPs) in Total Area (recorded post event)
- Customers (ICPs) 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 supports the following NTL activities:

- 1) Queries on an as needed basis by NTL's Network and Operations Managers
- 2) Summary outage statistics are prepared and provided to NTL's CEO and Board of Directors on a monthly basis and are compared against expected values.
- 3) Annual outage statistics are prepared and independently audited for regulatory and financial reporting purposes.
- 4) Summary statistics are recorded on a cumulative basis and are used for comparative analysis and form a key input into NTL's annual Asset Management Planning process.
- 5) Annual data is also reported against reliability targets in NTL's SCI, Information Disclosure Statements and Annual Financial Statements.
- 6) The SCI targets are negotiated and agreed annually with the Network Tasman Trust.

