# The Lines Company Limited

# DEFAULT PRICE QUALITY PATH COMPLIANCE STATEMENT

# FOR THE ASSESSMENT DATE 31 MARCH 2015

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

4 June 2015

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

The Lines Company Limited does comply with the price path at the assessment date, 31 March 2015, as specified in the *Electricity Distribution Services Default Price-Quality Path Determination 2012*.

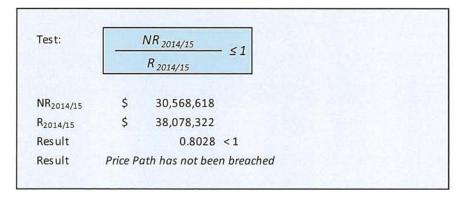
Clause 8.4 - The notional revenue (NR<sub>t</sub>) of a Non-exempt EDB at any time during the Assessment Period must not exceed the allowable notional revenue (R<sub>t</sub>) for the Assessment Period.

Compliance is demonstrated in the following table, which demonstrates that notional revenue during the Assessment Period does not exceed allowable notional revenue.

# Electricity Distribution Default Price-Quality Path Determination 2012

Assessment Against the Price Path for the Assessment Date 31 March 2015 for The Lines Company Limited

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



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

### **Basis of Estimates**

The Lines Company Limited offers a 10% prompt payment discount (PPD) on most of our charges. The PPD available is included in our published tariff schedules, where we publish two sets of prices (before and after the deduction of the PPD). The take-up of the PPD is determined by customers, as the receipt of the discount is based on the date of payment.

Our DPP Price Path Compliance is demonstrated above. Both Notional Revenue and Allowable Notional Revenue are products of posted prices multiplied by corresponding billed quantities. In accordance with the 2012 DPP Determination, quantities are lagged two years, and thus for this Compliance Statement, reflect 2013 billable quantities.

The price and quantity schedules included in Appendix B, therefore, include two sets of prices and two sets of quantities comprising:

pre PPD posted prices and post PPD posted prices;

quantities for each based on the estimated take up of the PPD.

As we do not have sufficient data to be able to determine for each price, the actual billed quantities where PPD has been applied, and the actual billed quantities where PPD has not been applied, for the 2015 assessment period we have estimated the quantities using the following method.

The compliance calculation has been adjusted to include quantities where the PPD was not applied to late paying customers. We have estimated the split between 2013 quantities with PPD applied and 2013 quantities with no PPD applied. Due to system limitations at this time, the quantity splits have been estimated by reference to the PPD values applied and not applied to applicable customers. In 2013, the PPD was applied (by value) to 87.5% of the PPD offered. We note that the PPD is applied in full to Major Customer (standard and non standard) charges, generator charges and streetlight charges. In addition disconnection and reconnection charges receive no PPD.

The inclusion of PPD not applied to customers results in an increase in both Allowable Notional Revenue and Notional Revenue by approximately \$547,000 and \$513,000 respectively, relative to assuming that the PPD is applied to all quantities (which was the approach adopted for the 2013 Assessment Period).

This approach is consistent with the approach adopted for the DPP Compliance Statement 2014.

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

The Lines Company Limited does comply with all requirements of the quality standards at the assessment date, 31 March 2015, as specified in the *Electricity Distribution Services Default Price-Quality Path Determination 2012*.

# 2015 Reliability Assessment (9.1(a))

Clause 9.1(a) requires compliance with Clause 9.2: A Non-exempt EDB's Assessed Values for an Assessment Period must not exceed its Reliability Limits for that Assessment Period

Compliance is demonstrated in the following tables.

# 2015 Reliability Assessment (9.1(a))

Clause 9.1(a) requires compliance with Clause 9.2: A Non-exempt EDB's Assessed Values for an Assessment Period must not exceed its Reliability Limits for that Assessment Period

| Test:                 | SAIDI <sub>Assess 2014/15</sub><br>SAIDI <sub>Limit</sub> | - ≤1                  |
|-----------------------|---|-----------------------|
| SAIDI Assess 2014/15  |   | 233.54                |
| SAIDI Limit           |   | 307.69                |
|                       |   | 0.7590 <1             |
| Clause 9.1(a) Result: |   | Does not exceed limit |

| Test:                 | SAIFI Assess 2014/15   | - ≤1          |          |
|-----------------------|------------------------|---------------|----------|
|                       | SAIFI <sub>Limit</sub> |               |          |
|                       |                        |               |          |
| SAIFI Assess 2014/15  |                        | 3.74          |          |
| SAIFI Limit           |                        | 4.15          |          |
|                       |                        | 0.9012        | <1       |
| Clause 9.1(a) Result: |                        | Does not exce | ed limit |

Supporting evidence is presented in Appendices E and F.

# Prior Period Reliability Assessment (9.1(b))

Compliance is demonstrated in the following tables.

# Prior Period Reliability Assessment (9.1(b))

Clause 9.1.(b) requires: compliance with annual reliability assessments for the two immediately preceding extant Assessment Periods

| C                    | oes not exceed limit |                      | Does not exceed |
|----------------------|----------------------|----------------------|-----------------|
| 0.8790               | <1                   | 0.9952               | <1              |
| SAIDI Limit 2013/14  | 307.69               | SAIFI Limit 2013/14  | 4.15            |
| SAIDI Assess 2013/14 | 270.46               | SAIFI Assess 2013/14 | 4.13            |

|                             | Does not exceed limit |                      | Does not exceed |
|-----------------------------|-----------------------|----------------------|-----------------|
| 0.6486                      | <1                    | 0.5590               | <1              |
| SAIDI Limit 2012/13         | 307.69                | SAIFI Limit 2012/13  | 4.15            |
| SAIDI Assess 2012/13 199.57 |                       | SAIFI Assess 2012/13 | 2.32            |

# Compliance Summary

Clause 9.1 A Non-exempt EDB must, in respect of each Assessment Period, either:

- (a) comply with the annual reliability assessment specified in clause 9.2; or
- (b) have complied with those annual reliability assessments for the two immediately preceding extant Assessment Periods

|   | SAIDI                          | SAIFI                    | Compliance |  |  |  |
|---|--------------------------------|--------------------------|------------|--|--|--|
| Compliance with 9.1(a)<br>2014/15 Assessment Period | Does not exceed<br>limit       | Does not exceed<br>limit | Complies   |  |  |  |
| or  |                                |                          |            |  |  |  |
| Compliance with 9.1(b)                              |                                |                          | Complies   |  |  |  |
| 2013/14 Assessment Period                           | Does not exceed<br>limit       | Does not exceed<br>limit | Complies   |  |  |  |
| 2012/13 Assessment Period                           | Does not exceed<br>limit       | Does not exceed<br>limit | Complies   |  |  |  |
| Clause 9.1 Result:                                  | Complies with Quality Standard |                          |            |  |  |  |

# 3) Director Certification (Clause 11.3(m))

We, Angus Malcolm Don and John McFadyen Rae, being directors of The Lines Company Limited certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached Annual Compliance Statement of The Lines Company Limited, and related information, prepared for the purposes of the *Electricity Distribution Services Default Price-Quality Path Determination 2012* are true and accurate.

Angus Malcolm **DON** Director John McFayden RAE Director

4 June 2015



# INDEPENDENT AUDITOR'S REPORT TO THE DIRECTORS OF THE LINES COMPANY LIMITED AND TO THE COMMERCE COMMISSION

The Auditor-General is the auditor of The Lines Company Limited (the company). The Auditor-General has appointed me, Sharon Cresswell, using the staff and resources of PricewaterhouseCoopers, to provide an opinion, on her behalf, on whether the Annual Compliance Statement for the year ended on 31 March 2015 on pages 2-5 and 9-24 complies, in all material respects, with the Electricity Distribution Services Default Price-Quality Path Determination 2012 NZCC 35 (the Determination).

# Directors' responsibilities for the Annual Compliance Statement

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

## Auditor's responsibility for the Annual Compliance Statement

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

#### Basis of opinion

We conducted our engagement in accordance with the International Standard on Assurance Engagements (New Zealand) 3000: Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the External Reporting Board and the Standard on Assurance Engagements 3100: Compliance Engagements issued by the External Reporting Board.

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

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

In relation to the price path set out in clause 8 of the Determination, our audit included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 9 to 20 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 2015, 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 21 to 24 of the Annual Compliance Statement.

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



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

Use of this report

This independent auditor's report has been prepared for the directors of the company and for the Commerce Commission for the purpose of providing those parties with independent audit assurance about whether the Annual Compliance Statement has been prepared, in all material respects, in accordance with the Determination. We disclaim any assumption of responsibility for any reliance on this report to any person other than the directors of the company or the Commerce Commission, or for any other purpose than that for which it was prepared.

#### Scope and inherent limitations

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

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

The opinion expressed in this independent auditor's report has been formed on the above basis.

### Independence

When carrying out the engagement we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the External Reporting Board. We also complied with the independent auditor requirements specified in the Determination.

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

#### Opinion

In our opinion, the Annual Compliance Statement of The Lines Company Limited for the year ended on 31 March 2015, has been prepared, in all material respects, in accordance with the Determination.

**Emphasis of Matter** 

We draw attention to the Basis of Estimates section in page 2 of this Annual Compliance Statement, which describes the uncertainty due to the system limitations related to the estimation of the quantities for which the Prompt Payment Discounts ("PPD") apply. Our opinion is not qualified in respect of this matter.

Our audit was completed on 04 June 2015 and our opinion is expressed as at that date.

Sharon Cresswell

PricewaterhouseCoopers

Sharon German

On behalf of the Auditor-General

Hamilton, New Zealand

# Appendix A - Price Path Compliance Calculations (Clause 11.3 (a))

# Electricity Distribution Default Price-Quality Path Determination 2012 Price Path Inputs and Calculations for the Assessment Date 31 March 2015 for The Lines Company Limited

## Clause 8.4

| Term  | Description  | Value \$   |
|---|--|------------|
| ΣP <sub>2014/15</sub> *Q <sub>2012/13</sub> | Prices during 2014/2015 multiplied by 2012/2013 Quantities   | 38,055,698 |
| K 2014/15                                   | Rates on system fixed assets for year ending 31 March 2015   | 189,348    |
|   | Commerce Act levies for year ending 31 March 2015 + 1/5 of Commerce Act levies for year ending 31 March 2010   | 119,952    |
|   | Electricity Authority levies for year<br>ending 31 March 2015  | 70,612     |
|   | EGCC levies for year ending 31 March<br>2015   | 36,930     |
|   | Transpower transmission charges for year ending 31 March 2015  | 5,485,366  |
| V 2014/15                                   | Transpower New Investment Contract charges for year ending 31 March 2015                                       |            |
|   | Avoided transmission charges resulting from connection of distributed generation for year ending 31 March 2015 | 1,584,872  |
|   | Clawback for year ending 31 March 2015   |            |
| NR <sub>2014/15</sub>                       | Notional Revenue for the year ending 31  March 2015  | 30,568,618 |

| Term   | Description  | Value \$   |
|--|--|------------|
| ΣP <sub>2013/14</sub> *Q <sub>2012/13</sub>  | Prices during 2013/2014 multiplied by 2012/2013 Quantities   | 37,005,674 |
|  | Rates on system fixed assets for year ending 31 March 2014   | 155,786    |
| K <sub>2013/14</sub>                         | Commerce Act levies for year ending 31 March 2014 + 1/5 of Commerce Act levies for year ending 31 March 2010   | 55,270     |
|  | Electricity Authority levies for year<br>ending 31 March 2014  | 30,889     |
|  | EGCC levies for year ending 31 March<br>2014   | 65,88      |
|  | Transpower transmission charges for year ending 31 March 2014  | 5,299,021  |
| V <sub>2013/14</sub>                         | Transpower new Investment Contract charges for year ending 31 March 2014                                       |            |
|  | Avoided transmission charges resulting from connection of distributed generation for year ending 31 March 2014 | 1,501,335  |
| R <sub>2013/14</sub> - NR <sub>2013/14</sub> | Revenue differential for year ending 31<br>March 2014  | 4,388,157  |
| (1 +DCPI <sub>2014/15</sub> )                | Average change in Consumer Price Index   | 1.0097     |
| X  | X Factor   | -109       |
| R 2014/15                                    | Allowable Notional Revenue for year ending 31 March 2015   | 38,078,322 |

|              | DCPI <sub>2014/15</sub> |             |      |
|--------------|-------------------------|-------------|------|
| Denominator  |                         | Numerator   |      |
| CPI Dec2011  | 1158                    | CPI Dec2012 | 1169 |
| CPI Mar2012  | 1164                    | CPI Mar2013 | 1174 |
| CPI Jun 2012 | 1168                    | CPI Jun2013 | 1176 |
| CPI Sep2012  | 1171                    | CPI Sep2013 | 1187 |
| Total        | 4661                    | Total       | 4706 |
| DCPI 2014/15 |                         | 0.97%       |      |

Source: Statistics NZ, SE9A Series

| Revenue Differential 2014 |  |            |  |  |  |  |  |
|---------------------------|--|------------|--|--|--|--|--|
| Term                      | Description  | Value \$   |  |  |  |  |  |
| R 2013/14                 | Allowable Notional Revenue for year ending 31 March 2014                       | 33,363,978 |  |  |  |  |  |
| NR <sub>2013/14</sub>     | Notional Revenue for year ending 31  March 2014                                | 28,975,821 |  |  |  |  |  |
| R 2013/14 - NR 2013/14    | Allowable Notional Revenue less Notional Revenue for year ending 31 March 2014 | 4,388,157  |  |  |  |  |  |

# Appendix B – Price and Quantity Schedules (Clause 11.3(a))

# Summary of Notional Revenue, Recoverable and Pass Through Costs

|  | 31 March 2014              | 31 March 2015  |
|--|----------------------------|----------------|
| Notional Revenue:                                  |                            |                |
| Major Customers - Distribution                     | \$ 5,490,356               | \$ 5,718,088   |
| Major Customers - Transmission                     | \$ 1,903,204               | \$ 1,920,358   |
| Network  | \$ 6,126,952               | \$ 6,448,103   |
| Demand   | \$ 14,160,800              | \$ 14,730,761  |
| Transmission                                       | \$ 5,079,181               | \$ 5,195,320   |
| Transformer  | \$ 2,737,666               | \$ 2,860,853   |
| Generators   | \$ 388,318                 | \$ 34,567      |
| Streetlights                                       | \$ 632,249                 | \$ 660,700     |
| Disconnection/Reconnections                        | \$ 186,594                 | \$ 186,594     |
| Relay  | \$ 300,354                 | \$ 300,354     |
| Total Notional Revenue:                            | \$ 37,005,674              | \$ 38,055,698  |
| Allowable Costs:                                   |                            |                |
| Recoverable Costs:                                 |                            |                |
| Transpower   | \$ (5,299,021)             | \$ (5,485,366) |
| Avoided Cost of Transmission                       | \$ (1,501,335)             | \$ (1,584,872) |
| Total Recoverable Costs:                           | \$ (6,800,356)             | \$ (7,070,238) |
| Pass Through Costs:                                |                            |                |
| Rates on system fixed assets                       | \$ (155,786)               | \$ (189,348)   |
| Commerce Act levies                                | \$ (55,270)                | \$ (119,952)   |
| Electricity Authority levies                       | \$ (55,270)<br>\$ (30,889) | \$ (70,612)    |
| EGCC levies  | \$ (65,887)                | \$ (36,930)    |
| Total Pass Through Costs:                          | \$ (307,832)               | \$ (416,842)   |
| Less Total Allowable Costs:                        | \$ (7,108,188)             | \$ (7,487,080) |
| Total Notional Revenue Less Total Allowable Costs: | \$ 29,897,486              | \$ 30,568,618  |
|  |                            |                |
| Allowable Notional Revenue March 2015              |                            | \$ 38,078,323  |
| Allowable Notional Revenue Difference 2015         |                            | \$ 7,509,705   |

Result Price Path has not been breached

| Major Customers - Standard and Non Standard | 31-Mar-13    |                    | 31-Mar-14           |            |      |             |                    | 31-Ma     | r-15       |      |           |
|---|--------------|--------------------|---------------------|------------|------|-------------|--------------------|-----------|------------|------|-----------|
|   | Quantity (Q) |                    | Price (P)           |            | Rev  | venue (Q×P) | Pr                 | ice (P)   |            | Rev  | enue (Q×P |
|   |              | annual (disclosed) | aross               | net of PPD |      |             | annual (disclosed) | aross     | net of PPD |      |           |
| Dedicated Network                           |              |                    |                     |            |      |             |                    |           |            |      |           |
|   | 1            |                    | 1,768,125           | 1,591,313  | S    | 1,591,313   |                    | 1.768.125 | 1,591,313  | S    | 1,591,313 |
|   | 1            |                    | 13,041              | 11,737     | - 5  | 11,737      |                    | 13,628    |            | 2.52 | 12,26     |
|   | 1            |                    | 10,976              | 9,878      |      | 9,878       |                    | 11,470    | 10,323     | 3.50 | 10,32     |
|   | 1            |                    | 178,764             | 160,888    | 7.7  | 160,888     |                    | 186,808   | 168,127    |      | 168,12    |
|   | 1            |                    | 109,286             | 98,357     |      | 98,357      |                    | 114,199   | 102,779    |      | 102,779   |
|   | 1            |                    | 558,104             | 502,294    |      | 502,294     |                    | 558,104   | 502,294    |      | 502,294   |
|   | 1            |                    | 437,047             | 393,342    | 177  | 393,342     |                    | 437,047   | 393,342    |      | 393,342   |
|   | 1            |                    | 65,225              | 58,703     |      | 58,703      |                    | 68,160    | 61,344     | 150  | 61,344    |
|   | î            |                    | 476,864             | 429,178    |      | 429,178     |                    | 484,017   | 435,615    |      | 435,615   |
|   | 1            |                    | 470,864             |            | 5    | 423,170     |                    | 156,000   | 455,615    | 5    |           |
|   | -            |                    |                     |            | Š    |             |                    | 136,000   |            | 2    | 156,000   |
| Billing Charge                              | 32           | 141.32             | 1 606               | 1.500      |      | 40.040      | 141.22             | 1.000     | 1.506      | 5    |           |
| Billing Charge                              | 34           | 141.32             | 1,696               | 1,526      | 5    | 48,840      | 141.32             | 1,696     | 1,526      | \$   | 48,840    |
| Natural Character (1978)                    |              |                    |                     |            | >    | -           |                    |           |            | 5    |           |
| Network Charge (kVA)                        |              |                    |                     | 2          | \$   | 2000        | 200000             |           | 92222      | \$   | y see Sin |
| Hangatiki                                   | 13,600       | 104.50             | 104.50              | 94.05      | 200  | 1,279,080   | 109.20             | 109.20    | 98.28      | 173  | 1,336,608 |
| Tokaanu                                     | 2,602        | 114.46             | 114.46              | 103.01     |      | 268,042     | 119.61             | 119.61    | 7.77       | \$   | 280,103   |
| Ongarue                                     | 660          | 118.49             | 118.49              | 106.64     |      | 70,383      | 123.82             | 123.82    | 111.44     | 525  | 73,549    |
| 33 kV                                       | 1,262        | 63.41              | 63.41               | 57.07      |      | 72,021      | 66.26              | 66.26     | 59.63      |      | 75,258    |
| Stepped                                     | 700          | 78.38              | 78.38               | 70.54      |      | 49,379      | 81.91              | 81.91     | 73.72      | -    | 51,603    |
| Whakamaru                                   | 1,000        | 197.81             | 197.81              | 178.03     | \$   | 178,029     | 206.71             | 206.71    | 186.04     | \$   | 186,039   |
| National Park                               | 1,300        | 152.34             | 152.34              | 137.11     | 1.7  | 178,238     | 159.20             | 159.20    | 143.28     | \$   | 186,264   |
| Ohakune                                     | 200          | 114.46             | 114.46              | 103.01     | \$   | 20,603      | 119.61             | 119.61    | 107.65     | \$   | 21,530    |
| Low voltage                                 | 240          | 110.28             | 110.28              | 99.25      | \$   | 23,820      | 115.24             | 115.24    | 103.72     | \$   | 24,892    |
| Generation 33 kV Hangatiki                  | 200          | 104.50             | 104.50              | 94.05      | \$   | 18,810      |                    | 0.00      | 0.00       | \$   |           |
| Generation 11 kV National Park              | 200          | 152.34             | 152.34              | 137.11     | \$   | 27,421      |                    | 0.00      | 0.00       | \$   | 89        |
|   |              |                    | Distribution Totals |            | \$   | 5,490,356   |                    |           |            | \$   | 5,718,088 |
| Transpower Connection (kVA)                 |              |                    |                     |            |      |             |                    |           |            |      |           |
| Hangatiki                                   | 21,328       | 19.68              | 19.68               | 17.71      | 5    | 377,762     | 18.73              | 18.73     | 16.86      | 5    | 359,526   |
| Tokaanu                                     | 1,092        | 7.97               | 7.97                | 7.17       |      | 7,833       | 8.69               | 8.69      | 7.82       | 0.51 | 8,541     |
| Ongarue                                     | 384          | 28.45              | 28.45               | 25.61      | 100  | 9,832       | 25.91              | 25.91     | 23.32      |      | 8,954     |
| Whakamaru                                   | 999          | 0.00               | 0.00                | 0.00       | 100  | 5,032       | 0.00               | 0.00      | 0.00       | - 20 | 0,334     |
| National Park                               | 3,020        | 50.95              | 50.95               | 45.86      |      | 138,482     | 47.35              | 47.35     | 42.62      |      | 128,697   |
| Ohakune                                     | 2,792        | 13.28              | 13.28               | 11.95      |      | 33,370      | 15.00              | 15.00     | 13.50      |      | 37,692    |
| Generation 33 kV Hangatiki                  | 200          | 19.68              | 19.68               | 17.71      | - 23 | 3,542       | 15.00              | 0.00      | 0.00       | 0.53 | 27,092    |
| Generation 11 kV National Park              | 200          | 50.95              | 50.95               | 45.86      |      | 9,171       |                    | 0.00      | 0.00       | 1.15 | - 8       |
| Generation 11 kV Hational Park              | 200          | 30.33              | 30.33               | 43.00      | \$   | 3,1/1       |                    | 0.00      | 0.00       | 5    | - 8       |
| Transpower Demand (kVA)                     |              |                    |                     |            | 5    | 2           |                    |           |            | s    | - 5       |
| Hangatiki                                   | 13,290       | 72.10              | 72.10               | 64.89      | 100  | 862,388     | 73.35              | 73.35     | 66.02      | 170  | 877,339   |
| Tokaanu                                     | 1,092        | 51.01              | 51.01               | 45.91      | 200  | 50,133      | 58.45              | 58.45     | 52.61      | 1.5  | 57,445    |
| Ongarue                                     | 384          | 80.26              | 80.26               | 72.23      |      | 27,738      | 84.28              | 84.28     | 75.85      | -    | 29,127    |
| Whakamaru                                   | 999          | 20.80              | 20.80               | 18.72      |      | 18,701      | 20.80              | 20.80     | 18.72      | . 7  |           |
| National Park                               | 721          | 64.80              | 64.80               | 58.32      |      | 42,049      | 68.18              |           |            |      | 18,701    |
|   |              |                    |                     |            |      |             |                    | 68.18     | 61.36      |      | 44,242    |
| Ohakune                                     | 157          | 48.21              | 48.21               | 43.39      |      | 6,812       | 61.43              | 61.43     | 55.29      | 100  | 8,680     |
| Demand Coincidental Transpower 100          | 2,908        | 113.32             | 113.32              | 101.99     |      | 296,581     | 130.45             | 130.45    | 117.41     | 2.55 | 341,414   |
| Generation 33 kV Hangatiki                  | 200          | 72.10              | 72.10               | 64.89      |      | 12,978      |                    | 0.00      | 0.00       | 1.50 | -         |
| Generation 11 kV National Park              | 100          | 64.80              | 64.80               | 58.32      | \$   | 5,832       |                    | 0.00      | 0.00       | \$   | 20        |
|   |              |                    | Transmission Totals |            | 5    | 1,903,204   |                    |           |            | ¢    | 1,920,358 |



| Network                   |        |        |             | 31-Mar-13            | 100000000000000000000000000000000000000 |                     |       | 31-Mar-14  |        |                   |                     |       | 31-Mar-15  |         |              |
|---------------------------|--------|--------|-------------|----------------------|---|---------------------|-------|------------|--------|-------------------|---------------------|-------|------------|---------|--------------|
|                           | Pricin | a Code |             | antity (Q) kVA and a |   | Pric                | e (P) |            | Notion | al Revenue (Q ×P) | Price               | (P)   |            | Notiona | Revenue (Q×P |
| Standard                  |        |        | Total Q     | PPD not taken up     | PPD taken up                            | monthly (disclosed) | gross | net of PPD |        |                   | monthly (disclosed) | gross | net of PPD |         |              |
| Low Voltage/High Density  |        |        | 20.00000000 | 450520               | - Constant                              |                     | -     | -          |        |                   |                     | -     |            |         |              |
| Hangatiki                 | LVHIHT | ннннт  | 21,764      | 3,460                | 18,304                                  | 3.83                | 45.96 | 41.36      | \$     | 916,148           | 4.00                | 48.00 |            | \$      | 956,813      |
| National Park             | LVHINP | HHHINP | 2,683       | 427                  | 2,256                                   | 4.61                | 55.32 | 49.79      | \$     | 135,943           | 4.82                | 57.84 | 52.06      | \$      | 142,130      |
| Ohakune                   | LVHIOK | HHHIOK | 10,319      | 1,641                | 8,678                                   | 3.85                | 46.20 | 41.58      | \$     | 436,645           | 4.02                | 48.24 | 43.42      | \$      | 455,926      |
| Ongarue                   | LVHION | HHHION | 13,388      | 2,129                | 11,259                                  | 3.85                | 46.20 | 41.58      | \$     | 566,509           | 4.02                | 48,24 | 43.42      | \$      | 591,52       |
| Tokaanu                   | LVHITK | HHHITK | 20,198      | 3,211                | 16,987                                  | 3.85                | 45.20 | 41.58      | \$     | 854,668           | 4.02                | 48.24 | 43.42      | \$      | 892,406      |
| Whakamaru                 | LVHIWK | HHHIWK | 2,807       | 446                  | 2,361                                   | 3.83                | 45.96 | 41.36      | \$     | 118,159           | 4.00                | 48.00 | 43.20      | \$      | 123,40       |
| Low Voltage/Low Density   |        |        | 774         |                      |   |                     |       |            |        |                   |                     |       |            |         |              |
| Hangatiki                 | LVLOHT | HHLOHT | 5,771       | 918                  | 4,853                                   | 7.37                | 88.44 | 79.60      | \$     | 467,467           | 7.70                | 92.40 |            | \$      | 488,399      |
| National Park             | LVLONP | HHLONP | 4,629       | 736                  | 3,893                                   | 6.83                | 81.96 | 73.75      | \$     | 347,486           | 7.14                | 85.68 | 77.11      | \$      | 363,257      |
| Ohakune                   | LVLOOK | HHLOOK | 0           | 0                    | 0                                       | 5.70                | 58.40 | 61.56      | \$     | 25.5              | 5.96                | 71.52 | 64.37      | 5       |              |
| Ongarue                   | LVLOON | HHLOON | 3,538       | 563                  | 2,975                                   | 7.41                | 88.92 | 80.03      | \$     | 288,145           | 7.74                | 92.88 | 83.59      | \$      | 300,978      |
| Tokaanu                   | LVLOTK | HHLOTK | 234         | 37                   | 197                                     | 7.41                | 88.92 | 80.03      | \$     | 19,056            | 7.74                | 92.88 | 83.59      | \$      | 19,904       |
| Whakamaru                 | LVLOWK | HHLOWK | 2,700       | 429                  | 2,271                                   | 6.80                | 81,60 | 73,44      | \$     | 201,789           | 7.11                | 85.32 | 76:79      | \$      | 210,988      |
| High Voltage/High Density |        |        |             |                      |   |                     |       |            |        |                   |                     |       |            |         |              |
| Hangatiki                 | HVHIHT |        | 11,964      | 1,902                | 10,062                                  | 1.79                | 21,48 | 19.33      | \$     | 235,374           | 1.87                | 22,44 | 20.20      | \$      | 245,893      |
| National Park             | HVHINP |        | 632         | 100                  | 532                                     | 2.16                | 25.92 | 23.33      | \$     | 15,002            | 2.26                | 27.12 | 24.41      | \$      | 15,697       |
| Ohakune                   | HVHIOK |        | 1,452       | 231                  | 1,221                                   | 1,80                | 21.60 | 19.44      | \$     | 28,726            | 1.88                | 22.56 | 20.30      | \$      | 30,003       |
| Ongarue                   | HVHION |        | 3,121       | 496                  | 2,625                                   | 1.80                | 21.60 | 19.44      | \$     | 61,744            | 1.88                | 22.56 | 20,30      | \$      | 64,488       |
| Tokaanu                   | HVHITK |        | 2,185       | 347                  | 1,838                                   | 1.80                | 21.50 | 19.44      | \$     | 43,226            | 1.88                | 22.56 | 20,30      | \$      | 45,147       |
| Whakamaru                 | HVHIWK |        | 1,616       | 257                  | 1,359                                   | 1.79                | 21,48 | 19,33      | \$     | 31,793            | 1.87                | 22:44 | 20.20      | \$      | 33,21        |
| High Voltage/Low Density  |        |        |             |                      |   |                     |       |            |        |                   |                     |       |            |         |              |
| Hangatiki                 | HVLOHT |        | 10,304      | 1,638                | 8,666                                   | 3.50                | 42.00 | 37.80      | \$     | 396,371           | 3.66                | 43.92 | 39.53      | \$      | 414,491      |
| National Park             | HVLONP |        | 1,574       | 250                  | 1,324                                   | 3.24                | 38.88 | 34.99      | \$     | 56,049            | 3.39                | 40.68 | 36.61      | \$      | 58,644       |
| Ohakune                   | HVLOOK |        | 0           | 0                    | 0                                       | 2.71                | 32.52 | 29,27      | \$     |                   | 2.83                | 33.96 | 30.56      | \$      |              |
| Ongarue                   | HVLOON |        | 4,621       | 735                  | 3,886                                   | 3.52                | 42.24 | 38.02      | \$     | 178,777           | 3.68                | 44.15 | 39.74      | \$      | 186,903      |
| Tokaanu                   | HVLOTK |        | 428         | 58                   | 360                                     | 3.52                | 42.24 | 38.02      | 5      | 16,558            | 3.68                | 44.15 | 39.74      | \$      | 17,311       |
| Whakamaru                 | HVLOWK |        | 14,833      | 2,358                | 12,475                                  | 3.23                | 38.76 | 34.88      | \$     | 526,574           | 3.38                | 40.56 | 36,50      | \$      | 551,02       |
| Low Fixed Charge          |        |        |             |                      |   |                     |       |            |        |                   |                     |       |            |         |              |
| Hangatiki                 | LU1    |        | 1,701       | 270                  | 1,431                                   | 3.91                | 45.92 | 42.23      | \$     | 73,097            | 5.07                | 60.84 | 54.76      | \$      | 94,78        |
| National Park             | LU1    |        | 99          | 16                   | 83                                      | 3.91                | 46.92 | 42.23      | \$     | 4,256             | 5.07                | 60.84 | 54.76      | \$      | 5,51         |
| Ohakune                   | LU1    |        | 286         | 45                   | 241                                     | 3.91                | 46.92 | 42.23      | \$     | 12,288            | 5.07                | 60.84 | 54.76      | \$      | 15,934       |
| Ongarue                   | LU1    |        | 1,000       | 159                  | 841                                     | 3.91                | 46.92 | 42.23      | \$     | 42,974            | 5.07                | 60.84 | 54.76      | \$      | 55,72        |
| Tokaanu                   | LU1    |        | 941         | 150                  | 791                                     | 3.91                | 46.92 | 42.23      | \$     | 40,440            | 5.07                | 60.84 | 54.76      | \$      | 52,43        |
| Whakamaru                 | LU1    |        | 272         | 43                   | 229                                     | 3.91                | 46.92 | 42.23      | \$     | 11,688            | 5.07                | 60,84 | 54.76      | \$      | 15,15        |
| Totals                    |        |        | 145,060     | 23,062               | 121,998                                 |                     |       |            | \$     | 6,126,952         |                     |       |            | \$      | 6,448,103    |

| kW.Load               |                |         | 31-Mar-13        |              |                     | 4      | 31-Mar-14  |       |                    |                     | 3      | 1-Mar-15   |         |                 |
|-----------------------|----------------|---------|------------------|--------------|---------------------|--------|------------|-------|--------------------|---------------------|--------|------------|---------|-----------------|
|                       | Pricing Code   |         | Quantity (Q) kV  |              | Pric                | e (P)  |            | Notio | nal Revenue (Q ×P) | Pris                | ce (P) |            | Notiona | l Revenue (Q ×P |
| Standard              |                | Total Q | PPD not taken up | PPD taken up | monthly (disclosed) | gross  | net of PPD |       |                    | monthly (disclosed) | gross  | net of PPD |         |                 |
| Hangatiki             | FPHT           | 23,627  | 3,757            | 19,870       | 16.99               | 203.88 | 183.49     | 5     | 4,411,963          | 17.75               | 213.00 | 191.70     | \$      | 4,609,320       |
| National Park         | FPNP           | 3,758   | 598              | 3,160        | 17.65               | 211.80 | 190.62     | \$    | 729,016            | 18.44               | 221.28 | 199.15     | \$      | 761,64          |
| Ohakune               | FPOK           | 6,555   | 1,042            | 5,513        | 13.91               | 166.92 | 150.23     | \$    | 1,002,138          | 14.54               | 174,48 | 157.03     | \$      | 1,047,52        |
| Ongarue               | FPON           | 11,035  | 1,755            | 9,280        | 17.81               | 213.72 | 192.35     | \$    | 2,160,068          | 18.61               | 223.32 | 200.99     | \$      | 2,257,09        |
| Tokaanu               | FPTK           | 10,866  | 1,728            | 9,138        | 16.19               | 194.28 | 174.85     | \$    | 1,933,513          | 16.92               | 203.04 | 182.74     | \$      | 2,020,695       |
| Whakamaru             | FPWK           | 8,436   | 1,341            | 7,095        | 22.72               | 272,64 | 245.38     | \$    | 2,106,553          | 23.74               | 284.88 | 256,39     | S       | 2,201,12        |
| Low Fixed Charge      |                |         |                  |              |                     |        |            |       |                    |                     |        |            |         |                 |
| Low Voltage/High Den: | ity            |         |                  |              |                     |        |            |       |                    |                     |        |            |         |                 |
| Hangatiki             | FPHTL          | 2,448   | 389              | 2,059        | 23.79               | 285,48 | 256.93     | \$    | 640,075            | 23.97               | 287.64 | 258.88     | \$      | 644,91          |
| National Park         | FPNPL          | 119     | 19               | 100          | 26.19               | 314,28 | 282.85     | \$    | 34,257             | 26.37               | 315.44 | 284.80     | \$      | 34,49           |
| Ohakune               | FPOKL          | 408     | 65               | 343          | 20.74               | 248.88 | 223.99     | \$    | 93,006             | 20.80               | 249.60 | 224.54     | \$      | 93,27           |
| Ongarue               | FPONL          | 1,478   | 235              | 1,243        | 24.64               | 295,68 | 266.11     | \$    | 400,262            | 24.87               | 298,44 | 268.50     | \$      | 403,99          |
| Tokaanu               | FPTKL          | 1,484   | 236              | 1,248        | 23.02               | 276.24 | 248.62     | \$    | 375,465            | 23.18               | 278.16 | 250.34     | \$      | 378,07          |
| Whakamaru             | FPWKL          | 369     | 59               | 310          | 29.52               | 354,24 | 318.82     | \$    | 119,733            | 29.96               | 359,52 | 323.57     | \$      | 121,51          |
| Low Voltage/Low Dens  | ity            |         |                  |              |                     |        |            |       |                    |                     |        |            |         |                 |
| Hangatiki             | FPHTLR         | 0       | 0                | 0            | 31.70               | 380,40 | 342.35     | \$    |                    | 31.68               | 380.16 | 342.14     | \$      |                 |
| National Park         | FPNPLR         | 3       | 0                | 3            | 31.16               | 373,92 | 336.53     | \$    | 1,010              | 31.20               | 374.40 | 336.96     | \$      | 1,01            |
| Ohakune               | FPOKLR         | 0       | 0                | O            | 24.88               | 298,56 | 268,70     | \$    |                    | 24.84               | 298.08 | 268.27     | \$      |                 |
| Ongarue               | <b>FPONLR</b>  | 2       | 0                | 2            | 32.59               | 391.08 | 351.97     | \$    | 704                | 32.62               | 391.44 | 352.30     | \$      | 70              |
| Tokaanu               | FPTKLR         | 0       | 0                | 0            | 30.98               | 371.76 | 334.58     | \$    | 200                | 30.93               | 371.16 | 334.04     | \$      |                 |
| Whakamaru             | FPWKLR         | 16      | 3                | 13           | 36.17               | 434.04 | 390.64     | s     | 6,380              | 36,44               | 437.28 | 393.55     | \$      | 6,423           |
| High Voltage/High Den | sity           |         |                  |              |                     |        |            |       |                    |                     |        |            | 13%     |                 |
| Hangatiki             | FPHTLUT        | 353     | 56               | 297          | 19.24               | 230,88 | 207.79     | \$    | 74,644             | 19.53               | 234.36 | 210.92     | 5       | 75,769          |
| National Park         | FPNPLUT        | 30      | 5                | 25           | 20.72               | 248.64 | 223.78     | \$    | 6,838              | 21.03               | 252.36 | 227.12     | \$      | 6,940           |
| Ohakune               | <b>FPOKLUT</b> | 61      | 10               | 51           | 16.17               | 194.04 | 174.64     | \$    | 10,847             | 16.34               | 196.08 | 176.47     | \$      | 10,963          |
| Ongarue               | FPONLUT        | 167     | 27               | 140          | 20.07               | 240.84 | 216.76     | \$    | 36,849             | 20.41               | 244.92 | 220.43     | \$      | 37,47           |
| Tokaanu               | <b>FPTKLUT</b> | 39      | 6                | 33           | 18.46               | 221.52 | 199.37     | \$    | 7,908              | 18.72               | 224.64 | 202.18     | \$      | 8,020           |
| Whakamaru             | FPWKLUT        | 31      | 5                | 26           | 24.97               | 299,64 | 269.68     | \$    | 8,510              | 25.52               | 306,24 | 275,62     | \$      | 8,697           |
| High Voltage/Low Dens | ity            |         |                  |              |                     |        |            |       |                    |                     |        |            |         |                 |
| Hangatiki             | FPHTLRT        | 0       | 0                | 0            | 23.06               | 276.72 | 249.05     | \$    | -                  | 23.26               | 279,12 | 251.21     | \$      | 9.              |
| National Park         | FPNPLRT        | 0       | 0                | 0            | 23.14               | 277.68 | 249.91     | \$    | 5.5                | 23.39               | 280.68 | 252.61     | 5       |                 |
| Ohakune               | FPOKLRT        | 0       | 0                | 0            | 18.21               | 218.52 | 196.67     | \$    |                    | 18.32               | 219.84 | 197.86     | 5       |                 |
| Ongarue               | FPONLRT        | 4       | 1                | 3            | 23.90               | 286.80 | 258.12     | \$    | 1,061              | 24.16               | 289.92 | 260.93     | \$      | 1,073           |
| Tokaanu               | <b>FPTKLRT</b> | 0       | 0                | 0            | 22.29               | 267.48 | 240.73     | S     |                    | 22.47               | 269.64 | 242.68     | \$      |                 |
| Whakamaru             | FPWKLRT        | 0       | 0                | 0            | 28.19               | 338,28 | 304.45     | 5     | 327                | 28.67               | 344.04 | 309.64     | 5       |                 |
| Totals                |                | 71,289  | 11,337           | 59,952       |                     |        |            | Ś     | 14,160,800         |                     |        |            | 5       | 14,730,761      |

| Standard Tranmission   |              |         | 31-Mar-13        |              |                     |        | 31-Mar-14  |        |                    |                     |        | 1-Mar-15   |        |                  |
|------------------------|--------------|---------|------------------|--------------|---------------------|--------|------------|--------|--------------------|---------------------|--------|------------|--------|------------------|
|                        | Pricing Code |         | Quantity (Q) k   | W            | Prio                | (P)    |            | Notion | nal Revenue (Q ×P) | Price               | (P)    |            | Notion | al Revenue (Q ×P |
| Standard               |              | Total Q | PPD not taken up | PPD taken up | monthly (disclosed) | gross  | net of PPD |        |                    | monthly (disclosed) | gross  | net of PPD |        |                  |
| Hangatiki              | TMHT         | 23,627  | 3,757            | 19,870       | 7.31                | 87.72  | 78.95      | \$     | 1,898,261          | 7.37                | 88.44  | 79.60      | 5      | 1,913,84         |
| National Park          | TMNP         | 3,758   | 598              | 3,160        | 9.41                | 112.92 | 101.63     | \$     | 388,671            | 9.86                | 118.32 | 106.49     | 5      | 407,25           |
| Ohakune                | TMOK         | 6,555   | 1,042            | 5,513        | 6.43                | 77.16  | 59.44      | \$     | 463,245            | 6.54                | 78.48  | 70.63      | \$     | 471,17           |
| Ongarue                | TMON         | 11,035  | 1,755            | 9,280        | 8.08                | 96,96  | 87.26      | \$     | 979,975            | 8.46                | 101.52 | 91.37      | \$     | 1,026,06         |
| Tokaanu                | TMTK         | 10,866  | 1,728            | 9,138        | 5.64                | 67.68  | 60.91      | \$     | 673,565            | 5.75                | 69.00  | 62.10      | \$     | 686,70           |
| Whakamaru              | TMWK         | 8,436   | 1,341            | 7,095        | 1.65                | 19.80  | 17.82      | \$     | 152,985            | 1.68                | 20.16  | 18.14      | \$     | 155,76           |
| Low Fixed Charge       |              |         |                  |              |                     |        |            |        |                    |                     |        |            |        |                  |
| Low Voltage/High Densi | ity          |         |                  |              |                     |        |            |        |                    |                     |        |            |        |                  |
| Hangatiki              | TMHTL        | 2,448   | 389              | 2,059        | 7.31                | 87.72  | 78,95      | \$     | 196,677            | 7.37                | 88.44  | 79.60      | \$     | 198,29           |
| National Park          | TMNPL        | 119     | 19               | 100          | 9.41                | 112.92 | 101.63     | \$     | 12,308             | 9.86                | 118.32 | 106.49     | \$     | 12,89            |
| Ohakune                | TMOKL        | 408     | 65               | 343          | 6.43                | 77.16  | 69.44      | \$     | 28,835             | 6.54                | 78.48  | 70.63      | \$     | 29,32            |
| Ongarue                | TMONL        | 1,478   | 235              | 1,243        | 8.08                | 96.96  | 87.26      | \$     | 131,255            | 8.46                | 101.52 | 91.37      | \$     | 137,42           |
| Tokaanu                | TMTKL        | 1,484   | 236              | 1,248        | 5.64                | 67.68  | 60.91      | \$     | 91,991             | 5.75                | 69.00  | 62.10      | 5      | 93,78            |
| Whakamaru              | TMWKL        | 369     | 59               | 310          | 1.65                | 19.80  | 17.82      | \$     | 6,692              | 1.68                | 20.16  | 18.14      | \$     | 6,81             |
| Low Voltage/Low Densit | ty           |         |                  |              |                     |        |            |        |                    |                     |        |            |        | - 68             |
| Hangatiki              | TMHTLR       | 0       | 0                | 0            | 7.31                | 87.72  | 78.95      | \$     | -                  | 7.37                | 88,44  | 79.60      | 5      |                  |
| National Park          | TMNPLR       | 3       | 0                | 3            | 9.41                | 112.92 | 101.63     | s      | 305                | 9.86                | 118.32 | 106.49     | 5      | 31               |
| Ohakune                | TMOKLR       | 0       | 0                | 0            | 6.43                | 77.16  | 69.44      | s      |                    | 6.54                | 78.48  | 70.63      | 5      | 100              |
| Ongarue                | TMONLR       | 2       | 0                | 2            | 8.08                | 96.96  | 87.26      | \$     | 175                | 8.46                | 101.52 | 91.37      | \$     | 18               |
| Tokaanu                | TMTKLR       | 0       | 0                | 0            | 5.64                | 67.68  | 60.91      | \$     |                    | 5.75                | 69.00  | 62.10      | \$     | 12               |
| Whakamaru              | TMWKLR       | 16      | 3                | 13           | 1.65                | 19,80  | 17.82      | \$     | 291                | 1.68                | 20.16  | 18.14      | \$     | 29               |
| High Voltage/High Dens | ity          |         |                  |              |                     |        |            |        |                    |                     |        |            |        |                  |
| Hangatiki              | TMHTLUT      | 353     | 56               | 297          | 7.31                | 87.72  | 78.95      | \$     | 28,360             | 7.37                | 88.44  | 79,60      | \$     | 28,59            |
| National Park          | TMNPLUT      | 30      | 5                | 25           | 9.41                | 112.92 | 101.63     | \$     | 3,105              | 9.86                | 118.32 | 106.49     | 5      | 3,25             |
| Ohakune                | TMOKLUT      | 61      | 10               | 51           | 6.43                | 77.16  | 69.44      | \$     | 4,313              | 6.54                | 78.48  | 70.63      | s      | 4,38             |
| Ongarue                | TMONLUT      | 167     | 2.7              | 140          | 8.08                | 96.96  | 87.26      | \$     | 14,835             | 8.46                | 101.52 | 91.37      | \$     | 15,53            |
| Tokaanu                | TMTKLUT      | 39      | 6                | 33           | 5.64                | 57.58  | 60.91      | \$     | 2,416              | 5.75                | 69.00  | 62.10      | \$     | 2,46             |
| Whakamaru              | TMWKLUT      | 31      | 5                | 26           | 1.65                | 19.80  | 17.82      | \$     | 562                | 1.68                | 20,16  | 18.14      | \$     | 57               |
| High Voltage/Low Densi | ty           |         |                  |              |                     |        |            |        |                    |                     |        |            |        |                  |
| Hangatiki              | TMHTLRT      | 0       | 0                | 0            | 7.31                | 87.72  | 78.95      | \$     | 4.1                | 7.37                | 88.44  | 79.60      | \$     | 140              |
| National Park          | TMNPLRT      | 0       | 0                | 0            | 9.41                | 112.92 | 101.63     | 5      |                    | 9.86                | 118,32 | 106.49     | \$     | 38               |
| Ohakune                | TMOKLRT      | 0       | 0                | 0            | 6.43                | 77.16  | 69.44      | \$     | 991                | 6.54                | 78.48  | 70.63      | \$     | 140              |
| Ongarue                | TMONLRT      | 4       | 1                | 3            | 8.08                | 96.96  | 87.26      | \$     | 359                | 8.46                | 101.52 | 91.37      | \$     | 37               |
| Tokaanu                | TMTKLRT      | 0       | 0                | 0            | 5.64                | 57.58  | 60.91      | \$     | 4                  | 5.75                | 69.00  | 62.10      | 5      | -                |
| Whakamaru              | TMWKLRT      | 0       | 0                | 0            | 1.65                | 19.80  | 17.82      | \$     |                    | 1.68                | 20,16  | 18.14      | \$     |                  |
| Totals                 |              | 71,289  | 11,337           | 59,952       |                     |        |            | \$     | 5,079,181          |                     |        |            | 5      | 5,195,320        |

| Transformer            |         | 31-Mar-13        |              |                     |       | 31-Mar-14  |        |                  |                     | 3     | 1-Mar-15   |         |                |
|------------------------|---------|------------------|--------------|---------------------|-------|------------|--------|------------------|---------------------|-------|------------|---------|----------------|
|                        |         | Quantity (Q) (k) | W)           | Price               | e (P) |            | Notion | al Revenue (Q×P) | Price               | (P)   |            | Notiona | l Revenue (Q×P |
| Transformer Size (kVA) | Total Q | PPD not taken up | PPD taken up | monthly (disclosed) | gross | net of PPD |        |                  | monthly (disclosed) | gross | net of PPD |         |                |
| 1500                   | 0       | 0                | 0            | 424.14              | 5,090 | 4,581      | \$     | 8                | 443.23              | 5,319 | 4,787      | \$      |                |
| 1250                   | 0       | 0                | O            | 376.75              | 4,521 | 4,069      | \$     |                  | 393.70              | 4,724 | 4,252      | \$      |                |
| 1000                   | 1       | 0                | .1           | 356.59              | 4,279 | 3,851      | \$     | 3,851            | 372.64              | 4,472 | 4,025      | \$      | 4,025          |
| 750                    | 10      | 2                | 8            | 316.29              | 3,795 | 3,416      | \$     | 34,918           | 330.52              | 3,966 | 3,570      | \$      | 36,489         |
| 500                    | 17      | 3                | 14           | 263.48              | 3,162 | 2,846      | \$     | 49,323           | 275.34              | 3,304 | 2,974      | \$      | 51,544         |
| 300                    | 12      | 2                | 10           | 225.03              | 2,700 | 2,430      | \$     | 29,704           | 235.16              | 2,822 | 2,540      | 5       | 31,041         |
| 200                    | 25      | 4                | 21           | 186.46              | 2,238 | 2,014      | \$     | 51,239           | 194.85              | 2,338 | 2,104      | \$      | 53,545         |
| 100                    | 47      | 7                | 40           | 108.19              | 1,298 | 1,168      | \$     | 55,826           | 113.06              | 1,357 | 1,221      | \$      | 58,339         |
| 75                     | 89      | 14               | 75           | 96.79               | 1,161 | 1,045      | \$     | 94,661           | 101.15              | 1,214 | 1,092      | 5       | 98,925         |
| 50                     | 184     | 29               | 155          | 79.34               | 952   | 857        | \$     | 160,425          | 82.91               | 995   | 895        | \$      | 167,644        |
| 30                     | 186     | 30               | 156          | 71.60               | 859   | 773        | \$     | 146,408          | 74.82               | 898   | 808        | \$      | 152,992        |
| 15<br>10<br>5          | 1,623   | 258              | 1,365        | 54.06               | 549   | 584        | \$     | 964,322          | 56.49               | 678   | 610        | \$      | 1,007,669      |
| 10                     | 847     | 135              | 712          | 39.46               | 474   | 425        | \$     | 367,357          | 41.24               | 495   | 445        | \$      | 383,928        |
| 5                      | 2,983   | 474              | 2,509        | 23.78               | 285   | 257        | \$     | 779,632          | 24.85               | 298   | 268        | \$      | 814,712        |
| Totals                 | 6,024   | 958              | 5,066        |                     |       |            | Ś      | 2,737,666        |                     |       |            | \$      | 2,860,853      |

| Relay Charges |         | 31-Mar-13    |        |                              |       | 31-Mar-14           |         |                 |                             |  | 31-Mar-15           |         |               |
|---------------|---------|--------------|--------|------------------------------|-------|---------------------|---------|-----------------|-----------------------------|--|---------------------|---------|---------------|
|               | Total Q | Quantity (Q) |        | Price<br>monthly (disclosed) |       |                     | Notiona | l Revenue (Q×P) | Price Price                 | the state of the s |                     | Notiona | Revenue (Q×P) |
| Control fee   | 16,869  | 2,682        | 14,187 | 1.62                         | 19.44 | net of PPD<br>17.50 | \$      | 300,354         | monthly (disclosed)<br>1.62 | 19.44  | net of PPD<br>17.50 | \$      | 300,354       |
| Totals        | 16,869  | 2,682        | 14,187 |                              |       |                     | \$      | 300,354         |                             |  |                     | \$      | 300,354       |

| Streetlights                         | 31-Mar-13    |        | 31-Ma   | <u>ır-14</u> |                 |        | 31-N    | lar-15  |                 |
|--------------------------------------|--------------|--------|---------|--------------|-----------------|--------|---------|---------|-----------------|
|                                      | Quantity (Q) | Price  | (P)     | Notiona      | I Revenue (Q×P) | Price  | (P)     | Notiona | l Revenue (Q×P) |
|                                      |              | gross  | net PPD |              |                 | gross  | net PPD |         |                 |
| Assets                               |              |        |         | \$           | 474,133         |        |         | \$      | 495,469         |
| Mounting Service                     |              |        |         |              |                 |        |         |         |                 |
| Taupo                                | 0            | 51.69  | 46.52   | \$           |                 | 54.02  | 48.62   | \$      |                 |
| Ruapehu                              | 959          | 53.84  | 48.46   | \$           | 46,473          | 56.27  | 50.64   | \$      | 48,565          |
| Waitomo                              | 553          | 43.08  | 38.77   | \$           | 21,439          | 45.01  | 40.51   | \$      | 22,403          |
| Otorohanga                           | 313          | 53.84  | 48.46   | \$           | 15,168          | 56.27  | 50.64   | \$      | 15,851          |
| Network - Streetlights kW            |              |        |         |              |                 |        |         |         |                 |
| Taupo                                | 76.50        | 102.05 | 91.84   | \$           | 7,026           | 106.64 | 95.97   | \$      | 7,342           |
| Ruapehu                              | 165          | 60.14  | 54.13   | \$           | 8,931           | 62.85  | 56.57   | \$      | 9,333           |
| Waitomo                              | 111          | 103.52 | 93.17   | \$           | 10,342          | 108.18 | 97.36   | \$      | 10,807          |
| Otorohanga                           | 65.85        | 103.52 | 93.17   | \$           | 6,135           | 108.18 | 97.36   | \$      | 6,411           |
| Under Veranda kW                     | 10.67        | 69.42  | 62.48   | \$           | 667             | 72.55  | 65.29   | \$      | 697             |
| Transmission Demand kW               |              |        |         |              |                 |        |         |         |                 |
| Taupo                                | 76.50        | 39.14  | 35.23   | \$           | 2,695           | 40.91  | 36.82   | \$      | 2,816           |
| Ruapehu                              | 165          | 57.04  | 51.34   | \$           | 8,471           | 59.61  | 53.65   | \$      | 8,852           |
| Waitomo                              | 111          | 48.44  | 43.59   | \$           | 4,839           | 50.62  | 45.56   | \$      | 5,057           |
| Otorohanga                           | 65.85        | 48.44  | 43.59   | \$           | 2,871           | 50.62  | 45.56   | \$      | 3,000           |
| Under Veranda kW                     | 10.67        | 66.61  | 59.95   | \$           | 640             | 69.60  | 62.64   | \$      | 668             |
| Transmission Connection kW           |              |        |         |              |                 |        |         |         |                 |
| Taupo                                | 76.50        | 28.82  | 25.94   | \$           | 1,984           | 30.11  | 27.10   | \$      | 2,073           |
| Ruapehu                              | 165          | 12.63  | 11.37   | \$           | 1,876           | 13.20  | 11.88   | \$      | 1,960           |
| Waitomo                              | 111          | 20.26  | 18.23   | \$           | 2,024           | 21.17  | 19.05   | \$      | 2,115           |
| Otorohanga                           | 65.85        | 20.26  | 18.23   | \$           | 1,200           | 21.17  | 19.05   | \$      | 1,255           |
| Load Plant Operation (Load Shifting) |              |        |         |              |                 |        |         |         |                 |
| Taupo                                | 1,460        | 2.69   | 2.42    | \$           | 3,538           | 2.81   | 2.53    | \$      | 3,697           |
| Ruapehu                              | 2,190        | 2.69   | 2.42    | \$           | 5,306           | 2.81   | 2.53    | \$      | 5,545           |
| Waitomo                              | 1,460        | 2.69   | 2.42    | \$           | 3,538           | 2.81   | 2.53    | \$      | 3,697           |
| Otorohanga                           | 730          | 2.69   | 2.42    | \$           | 1,769           | 2.81   | 2.53    | \$      | 1,848           |
| Private light residual               | 400          | 3.29   | 2.96    | \$           | 1,186           | 3.44   | 3.10    | \$      | 1,239           |
| Totals                               |              |        |         | \$           | 632,249         |        |         | \$      | 660,700         |

| Disconn  | ection/Reconnections   | 31-Mar-13    |           | 31-         | <u>Mar-14</u>      |           | <u>31-N</u> | <u>1ar-15</u>     |
|----------|--|--------------|-----------|-------------|--------------------|-----------|-------------|-------------------|
|          |  | Quantity (Q) | Price (P) | <u>Noti</u> | onal Revenue (Q×P) | Price (P) | Notion      | nal Revenue (Q×P) |
| Urban    |  |              |           |             |                    | 4.222     |             |                   |
| 1A       | Disconnection/Reconnection: requested<br>by 2:00pm and executed next working<br>day by 4:30pm  | 736          | 46.58     | \$          | 34,283             | 46.58     | \$          | 34,283            |
| 2A       | Reconnection: requested after 2:00pm<br>executed next working day by 4:30pm  | 81           | 52.40     | \$          | 4,244              | 52.40     | \$          | 4,244             |
| 3A       | Disconnection/Reconnection: Requested<br>for same working day before 3:00pm and<br>executed that day   | 296          | 69.86     | \$          | 20,679             | 69.86     | \$          | 20,679            |
| 4A       | Reconnection: from 3:00pm onwards. on<br>any given weekday, weekend or public<br>holiday before 10pm   | 63           | 116.44    | \$          | 7,336              | 116.44    | \$          | 7,336             |
| 5A       | Reconnection: from 10:00pm requested for completion after 10pm on any given day including public holidays  | 0            | 232.88    | \$          | 170                | 232.88    | \$          | •                 |
| 7A       | Late cancellation fee: Charged if payment is not received until after 2.00pm the day before disconnection or the site has been processed for disconnection (includes the day of disconnection) | 35           | 36.23     | \$          | 1,268              | 36.23     | \$          | 1,268             |
| Rural    | ,  |              |           | \$          | (4)                |           | \$          |                   |
| 1B       | Disconnection/Reconnection: requested<br>by 2:00pm and executed next working<br>day by 4:30pm  | 236          | 58.22     | \$          | 13,740             | 58.22     | \$          | 13,740            |
| 2B<br>3B | Reconnection: requested after 2:00pm<br>executed next working day by 4:30pm<br>Disconnection/Reconnection: Requested   | 17           | 64.05     | \$          | 1,089              | 64.05     | \$          | 1,089             |
| beaver   | for same working day before 3:00pm and executed that day   | 77           | 81.51     | \$          | 6,276              | 81.51     | \$          | 6,276             |
| 4B       | Reconnection: from 3:00pm onwards. on<br>any given weekday, weekend or public<br>holiday before 10pm   | 19           | 174.66    | \$          | 3,319              | 174.66    | \$          | 3,319             |
| 5B<br>7B | Reconnection: from 10:00pm requested<br>for completion after 10pm on any given<br>day including public holidays<br>Late cancellation fee: Charged if<br>payment is not received until after    | 0            | 291.09    | \$          | · <b>2</b> 27      | 291.09    | \$          | *                 |
|          | 2.00pm the day before disconnection or<br>the site has been processed for<br>disconnection (includes the day of<br>disconnection)  | 3            | 47.87     | \$          | 144                | 47.87     | \$          | 144               |
|          |  |              |           | \$          | 1                  |           | \$          | -                 |
| Remote   |  |              |           | \$          | (#)                |           | \$          |                   |
| 1C       | Disconnection/Reconnection: requested<br>by 2:00pm and executed next working<br>day by 4:30pm  | 341          | 174.66    | \$          | 59,559             | 174.66    | \$          | 59,559            |
| 2C       | Reconnection: requested after 2:00pm<br>executed next working day by 4:30pm  | 22           | 203.77    | \$          | 4,483              | 203.77    | \$          | 4,483             |
| 3C       | Disconnection/Reconnection: Requested for same working day before 3:00pm and executed that day   | 94           | 261.99    | \$          | 24,627             | 261.99    | \$          | 24,627            |
| 4C       | Reconnection: from 3:00pm onwards. on<br>any given weekday, weekend or public<br>holiday before 10pm   | 14           | 349.31    | \$          | 4,890              | 349.31    | \$          | 4,890             |
| 5C<br>7C | Reconnection: from 10:00pm requested<br>for completion after 10pm on any given<br>day including public holidays<br>Late cancellation fee: Charged if   | 0            | 523.97    | \$          |                    | 523.97    | \$          | 2 <b>5</b> .0     |
|          | payment is not received until after 2.00pm the day before disconnection or the site has been processed for disconnection (includes the day of disconnection)                                   | 4            | 164.31    | \$          | 657                | 164.31    | \$          | 657               |
|          |  | 2,038        |           | \$          | 196 504            |           | ć           | 100 504           |
|          |  |              |           | >           | 186,594            |           | \$          | 186,594           |

| Generators                    | 31-Mar-13    |                    | 31-Mc  | r-14    |                |                    | 31-Ma  | r-15    |      |           |
|-------------------------------|--------------|--------------------|--------|---------|----------------|--------------------|--------|---------|------|-----------|
|                               | Quantity (Q) | Price              |        |         | <br>enue (Q×P) | Price              | (P)    |         | Reve | nue (Q×P) |
|                               |              | annual (disclosed) | gross  | net PPD |                | annual (disclosed) | gross  | net PPD |      |           |
| Generation Common Cost Charge | 14,000       | 3.87               | 3.87   | 3.48    | \$<br>48,720   |                    | 0.00   | 0.00    | \$   | (*)       |
| Transpower Injection          |              |                    |        |         |                |                    |        |         |      |           |
| National Park                 | 1            |                    | 0.00   |         | \$<br>         |                    | 130    |         | \$   | 130       |
| Ongarue                       | 1            |                    | 31,995 |         | \$<br>31,995   |                    | 30,358 |         | \$   | 30,358    |
| Tokaanu                       | 1            |                    | 27,203 |         | \$<br>27,203   |                    | 4,079  |         | \$   | 4,079     |
| Network Injection             |              |                    |        |         |                |                    |        |         |      |           |
| 33kV                          | 12,500       | 21.15              | 21.15  | 19.03   | \$<br>237,875  |                    | 0.00   | 0.00    | \$   | 527       |
| 11kV                          | 1,500        | 31.50              | 31.50  | 28.35   | \$<br>42,525   |                    | 0.00   | 0.00    | \$   |           |
| Totals                        |              |                    |        |         | \$<br>388,318  |                    |        |         | \$   | 34,567    |

# Appendix C - Pass Through & Recoverable Costs (Clause 11.3(b - e))

# Electricity Distribution Default Price-Quality Path Determination 2012 Pass-through Costs for the Assessment Date 31 March 2015 for The Lines Company Limited

| Pass-1                       | through Costs for year | r ending March 2 | 015           |              |
|------------------------------|------------------------|------------------|---------------|--------------|
| K <sub>2014/15</sub>         | Actual (\$)            | Forecast (\$)    | Variance (\$) | Variance (%) |
| Rates on system fixed assets | 189,348                | 177,996          | 11,352        | 6.4%         |
| Commerce Act levies          | 119,952                | 50,000           | 69,952        | 139.9%       |
| Electricity Authority levies | 70,612                 | 50,000           | 20,612        | 41.2%        |
| EGCC levies                  | 36,930                 | 50,000           | (13,070)      | (26.1%)      |
| Total Pass-through Costs     | 416,842                | 327,996          | 88,846        | 27.1%        |

# Electricity Distribution Default Price-Quality Path Determination 2012 Recoverable Costs for the Assessment Date 31 March 2015 for The Lines Company Limited

| Recover   | able Costs for yea | r ending March 20 | 015           |              |
|---|--------------------|-------------------|---------------|--------------|
| V <sub>2014/15</sub>                                  | Actual (\$)        | Forecast (\$)     | Variance (\$) | Variance (%) |
| Transpower transmission charges                       | 5,485,366          | 5,495,000         | (9,634)       | (0.2%)       |
| New investment contract charges                       | -                  | -                 | -             | 0.0%         |
| Avoided transmission charges - distributed generation | 1,584,872          | 1,590,000         | (5,128)       | (0.3%)       |
| Clawback  | -                  | -                 | -             | 0.0%         |
| Total Recoverable Costs                               | 7,070,238          | 7,085,000         | (14,762)      | (0.2%)       |

A variance exists between actual and forecast Commerce Act levies, which arises from a reconciliation which was undertaken on Commerce Act levies resulting in the balance of a previous year's levy being paid during this Assessment Year. In addition, the Electricity Authority, without notification, altered its allocation method for 2015, resulting in an increase in the proportion of its costs borne by electricity distributors.



# Appendix D – Restructuring of Prices and Transactions involving Non-Exempt EDBs (Clause 11.3((f) - (g), (j) and(k))

Clauses 11.3 ((f) – (g)) – The Lines Company Limited did restructure its Prices that applied during the Assessment Period and therefore clauses 8.5 and 8.6 do apply during the Assessment Period.

On 31 March 2014, The Lines Company Limited entered into an interim arrangement with a generation business that operates on TLC's network.

The arrangement provided for the existing agreement and tariff/charging structure to be replaced, effective 1 April 2014, with an administration fee of \$13,000 per month plus the charges TLC is required to pay to Transpower as a result of the generation businesses' injection into the National Grid.

As the fee of \$13,000 per month (\$156,000 per year) replaces the existing payment arrangements for connection of the generation businesses' assets, this change is a price restructure.

This restructure has not increased TLC's allowable notional revenue. The restructure has changed TLC's notional revenue but has no effect on allowable notional revenue.

Allowable notional revenue is not affected by this restructure as allowable notional revenue for the Fifth Assessment Period is calculated on the basis of prices that applied in the Fourth Assessment Period, multiplied by quantities that apply to those prices from the Third Assessment Period, adjusted for pass-through and recoverable costs from the Fourth Assessment Period and changes in CPI. The restructure changed the price that was applied in the Fifth Assessment Period, but this has no effect on the calculation of allowable notional revenue for that period.

The effect of the restructure on notional revenue can be assessed. This impact is set out in Appendix B¹, but summarised here for clarity:

<sup>&</sup>lt;sup>1</sup> The new charge is included under "Dedicated Network" included in the Major Customers – Standard and Non Standard data. The old charges are included as "Generation Common Cost Charge" in the Generators data and the Major Customers – Standard and Non Standard data.



| Charge  | Structure | Quantity<br>(2013) | Price<br>(2014) | Notional<br>Revenue<br>(2014) | Price<br>(2015) | Notional<br>Revenue<br>(2015) |
|---|-----------|--------------------|-----------------|-------------------------------|-----------------|-------------------------------|
| Generation Common Cost Charge                   | Old       | 14,000 kVA         | \$3.48          | \$48,720                      | <b>\$</b> 0     | \$0                           |
| Network Injection<br>33 kV                      | Old       | 12,500 kVA         | \$19.03         | \$237,875                     | \$0             | \$0                           |
| Network Injection<br>11 kV                      | Old       | 1,500 kVA          | \$28.35         | \$42,525                      | \$0             | \$0                           |
| Network Charge 33<br>kV Hangatiki               | Old       | 200 kVA            | \$94.05         | \$18,810                      | \$0             | \$0                           |
| Network 11 kV<br>National Park                  | Old       | 200 kVA            | \$137.11        | \$27,421                      | \$0             | \$0                           |
| Transpower<br>Connection 33 kV<br>Hangatiki     | Old       | 200 kVA            | \$17.71         | \$3,542                       | \$0             | \$0                           |
| Transpower<br>Connection 11 kV<br>National Park | Old       | 200 kVA            | \$45.86         | \$9,171                       | \$o             | \$0                           |
| Transpower<br>Demand 33 kV<br>Hangatiki         | Old       | 200 kVA            | \$64.89         | \$12,978                      | \$0             | \$0                           |
| Transpower<br>Demand 11 kV<br>National Park     | Old       | 100 kVA            | \$58.32         | \$5,832                       | \$o             | \$0                           |
| Dedicated Network<br>charge (new<br>structure)  | New       | 1 year             | \$\$0           | \$0                           | \$156,000       | \$156,000                     |
| Total   |           |                    |                 | \$406,874.00                  |                 | \$156,000.00                  |

This restructure did not increase TLC's revenue for the Fifth Assessment Period. TLC has complied with the price path as notional revenue remains below allowable notional revenue even after taking account of the effect of the restructure.

The arrangement also provided for TLC and the other party to update the existing agreement and to negotiate a new agreement for the connection of the generation stations to the network.

Once the new connection contract is signed, it will be retrospectively applied to 1 April 2014 where the parties will calculate a wash-up payment for the period from 1 April 2014 to the commencement date of the new connection contract. If any additional revenue results to TLC, this will be disclosed in a future DPP Compliance Statement.

As the other party was the only customer on the disclosed generation tariffs, these tariffs have been expired.

Clauses 11.3 ((j) & (k)) – The Lines Company Limited did not enter into transactions resulting in an amalgamation or Merger and did not enter into transactions resulting in Consumers being supplied by a different EDB. Clause 10 therefore did not apply for the Assessment Period.



# Appendix E – Quality Standard Compliance Calculations (Clause 11.3(h))

# Reliability Data (Before Normalisation)

| V    | SAID            | I (Interruption Durat | tion)    | SAIFI           | (Interruption Freque | ncy)  |
|------|-----------------|-----------------------|----------|-----------------|----------------------|-------|
| Year | Class B         | Class C               | Total    | Class B         | Class C              | Total |
| 2005 | 92.61           | 171.93                | 264.54   | 0.50            | 2.97                 | 3.47  |
| 2006 | 97.51           | 180.01                | 277.52   | 0.60            | 3.16                 | 3.76  |
| 2007 | 101.24          | 232.60                | 333.84   | 0.52            | 2.73                 | 3.25  |
| 2008 | 81.34           | 165.38                | 246.72   | 0.34            | 2.57                 | 2.91  |
| 2009 | 57.71           | 237.41                | 295.12   | 0.81            | 3.88                 | 4.69  |
|      | Reference Peri  | od Total SAIDI        | 1,417.74 | Reference Per   | iod Total SAIFI      | 18.08 |
|      | Reference Perio | d Average SAIDI       | 283.55   | Reference Perio | od Average SAIFI     | 3.62  |
| 2011 | 63.58           | 228.85                | 292.43   | 0.48            | 2.99                 | 3.47  |
| 2012 | 71.70           | 252.83                | 324.53   | 0.51            | 3.48                 | 3.99  |
| 2013 | 83.01           | 116.55                | 199.57   | 0.54            | 1.78                 | 2.32  |
| 2014 | 83.61           | 186.84                | 270.46   | 0.46            | 3.67                 | 4.13  |
| 2015 | 75.07           | 203.94                | 279.02   | 0.42            | 3.64                 | 4.06  |

# Reliability Limit Calculations (using Reference Period Dataset)

#### **SAIDI Boundary Calculations**

| a saidi            | -1.2985 |
|--------------------|---------|
| b <sub>SAIDI</sub> | 1.7497  |

The average of the natural logarithm (In) of each daily SAIDI Value in the non-zero data set
The standard deviation of the natural logarithm (In) of each daily SAIDI Value in the non-zero data set

SAIDI Boundary Value

#### **SAIFI Boundary Calculations**

| α <sub>SAIFI</sub> | -5.7677 |
|--------------------|---------|
| b <sub>SAIFI</sub> | 1.7797  |

The average of the natural logarithm (In) of each daily SAIFI Value in the non-zero data set

The standard deviation of the natural logarithm (In) of each daily SAIFI Value in the non-zero data set

| $B_{SAIFI} = e^{(aSAIFI + 2.5*bSAIFI)}$ | 0.2676                                  |
|---|---|
| PARAMETER ST.                           | F - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - |

SAIFI Boundary Value

#### Event Days exceeding SAIDI Boundary Value within the Reference Dataset

| Date      | Pre-Normalised<br>SAIDI | Pre-Normalised<br>SAIFI | Normalised SAIDI | Normalised SAIFI |
|-----------|-------------------------|-------------------------|------------------|------------------|
| 12-Aug-04 | 24.1446                 | 0.0331                  | 21.6659          | 0.0331           |
| 24-Mar-06 | 28.4171                 | 0.0572                  | 21.6659          | 0.0572           |
| 12-Jun-06 | 75.9652                 | 0.1585                  | 21.6659          | 0.1585           |
| 14-Mar-07 | 24.6937                 | 0.2821                  | 21.6659          | 0.2676           |
| 26-Jul-08 | 38.9216                 | 0.2352                  | 21.6659          | 0.2352           |
|           |                         |                         | -                | 10               |
|           |                         | E STEP IN THE S         |                  |                  |
|           |                         |                         |                  | [19              |
|           | -                       |                         |                  |                  |
| 1/ 4/     |                         |                         | Te.              |                  |

### SAIDI Limit

| m <sub>SAIDI</sub> | 270.1898 |
|--------------------|----------|
| SSAIDI             | 37.5023  |

The average annual SAIDI Value in the Normalised Reference Dataset

The standard deviation of daily SAIDI Values in the Normalised Reference Dataset multiplied by V365

| $SAIDI_{Limit} = m_{SAIDI} + s_{SAIDI}$ | 307.69 | SA |
|---|--------|----|
|---|--------|----|

SAIDI Limit Value

# SAIFI Limit

| MSAIFI | 3.6722 |
|--------|--------|
| SSAIFI | 0.4825 |

The average annual SAIFI Value in the Normalised Reference Dataset

The standard deviation of daily SAIFI Values in the Normalised Reference Dataset multiplied by v365

| SAIFI Limit = m <sub>SAIFI</sub> + s <sub>SAIFI</sub> | 4.15 | SAIFI Limit Value |
|---|------|-------------------|
|---|------|-------------------|

# Reliability Assessment Calculations (2015 Assessment Period)

# Event Days exceeding SAIDI Boundary Value within the 2014/15 Assessment Dataset

| Date      | Pre-Normalised<br>SAIDI | Pre-Normalised<br>SAIFI | Normalised SAIDI | Normalised SAIFI |
|-----------|-------------------------|-------------------------|------------------|------------------|
| 17-Apr-14 | 67.1391                 | 0.5870                  | 21.6659          | 0.2676           |
|           |                         |                         | *                |                  |
| 10        |                         |                         |                  |                  |
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|           |                         |                         | 2                |                  |

## Assessed SAIDI Value 2014/15

| SAIDI <sub>2014/15</sub> | 233.5435 | The sum of daily SAIDI Values in the 1 April 2014 - 31 March<br>2015 Normalised Assessment Dataset |
|--------------------------|----------|--|
|--------------------------|----------|--|

#### Assessed SAIFI Value 2014/15

| SAIFI <sub>2014/15</sub> | 3.7429 The sum of daily SAIFI Values in the 1 April 2014 - |
|--------------------------|--|
|--------------------------|--|

# **Prior Period Assessed Values**

# Assessed SAIDI Value 2013/14

| SAIDI <sub>2013/14</sub> | 270.4555 | The sum of daily SAIDI Values in the 1 April 2013 - 31 March<br>2014 Normalised Assessment Dataset |
|--------------------------|----------|--|
|                          |          | •  |

## Assessed SAIFI Value 2013/14

| SAIFI <sub>2013/14</sub> | 4.1306 The sum of daily SAIFI Values in the 1 April 2013 -<br>31 March 2014 Normalised Assessment Dataset |
|--------------------------|---|
|--------------------------|---|

# Assessed SAIDI Value 2012/13

| The sum of daily SAIDI Values in the 1 April 2012 - 31 March 2013 Normalised Assessment Dataset |
|---|
|   |

## Assessed SAIFI Value 2012/13

| SAIFI <sub>2012/13</sub> | 2.3170 The sum of daily SAIFI Values in the 1 April 2012 -<br>31 March 2013 Normalised Assessment Dataset |
|--------------------------|---|
|                          |   |

# Appendix F – Policies and Procedures for Recording SAIDI and SAIFI (Clause 11.3(i))

TLC uses the BASIX computer programme which has a connectivity model for outage and performance recording and reporting. This includes SAIDI and SAIFI reports. The module connects various assets together and then runs a calculation that produces the regulatory performance indications. Customer numbers are transferred automatically from the billing system on a regular basis. The use of BASIX outage calculator has allowed TLC to collect more accurate outage data.

TLC has taken a conservative approach and where uncertain, has chosen to include rather than exclude events. This same approach has been undertaken historically, although over time the processes for recording outages have improved as intellectual understanding and systems have been developed. Listed below is more explanation regarding the judgements which have been made.

- 1. Single 11kV fuse operations (often supplying individual customers) have been included. These faults are often caused by low voltage events (faults not being cleared by LV fusing or no existing LV fuses) that force the 11kV fuse/s to operate.
- 2. Single phase HV outages have been included; given customers will experience low voltage during these events that would generally not allow their equipment to operate. The causes of these faults vary widely and often the effects are widespread. Individual customer loadings at the time and the sizes of the distribution transformers in the areas affected will often impact on the voltages individual customers see. Determining the voltages individual ICPs will see is not possible at this time with the modelling tools available.
- 3. Included in the calculation are outages which have been requested by customers that result in network isolations.
- 4. The time of a recorded circuit breaker tripping or the initial customer call to TLC call centre is taken as the time a fault occurred. The SCADA stamping of the tripping or the time the customer call was taken is used for the outage calculations.
- 5. The evolution of Electricity legislation over time defines the sections of line which are customer and network owned. The boundary between customer ownership and network ownership is not consistent between network companies, and has been rolled forward in Electricity legislation in a way that adds complexity with many "shades of grey". TLC's terms and conditions of supply define the 'Point of Connection' that emanates from this legislation evolution. The implication is that customers are responsible for long lengths of HV lines that are often directly connected to TLC's lines and when these lines fault, they cause network outages. The cause of many faults from the control room and faultman's perspective is often unknown. Segregating between interruption classes therefore is often subjective. TLC has managed this uncertainty by including all such outages in Class C data.
- 6. TLC deals directly with its customers and landowners. As a consequence, it maintains both a detailed customer and landowner database for the purpose of sending accounts. The charge structure includes dedicated asset charges (mostly for dedicated transformers and earthing systems). An implication of the dedicated asset charge is that TLC must maintain an accurate and detailed knowledge of the ICP connected to specific transformers. This has resulted in TLC having the information and data to use monthly customer numbers for the calculation of SAIDI and SAIFI. The system uses these figures, and then sums the monthly results to produce annual figures. This produces more accurate month to month results than an annual, beginning and end of year, average.

