Electricity Distribution Services Default Price-Quality Path 2017

Powerco Limited

25 May 2017

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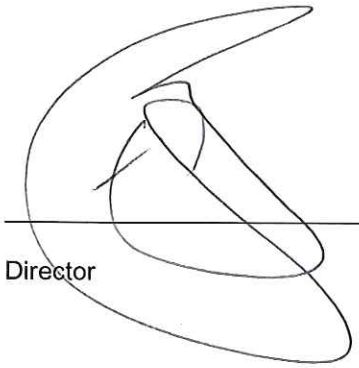
Director's Certificate

I, John James Loughlin, being a director of Powerco Limited certify that, having made all reasonable enquiry, to the best of my knowledge and belief, the attached Annual Compliance Statement of Powerco Limited, and related information, prepared for the purposes of the Electricity Distribution Services Default Price-Quality Path Determination 2015 are true and accurate.



Director

25th May 2017.

Date

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1 Summary

Powerco Limited's electricity distribution business (Powerco) is subject to regulation under the Commerce Act 1986. Pursuant to the requirements of this Act, the Commerce Commission (the Commission) has set a default price-quality path ("DPP") which applies to all non-exempt Electricity Distribution Businesses (EDBs), including Powerco.

The default price-quality path requirements are set out in the Electricity Distribution Services Default Price-Quality Path Determination 2015 (the Determination). During the regulatory period, Powerco must comply with the requirements of the Determination, in particular:

- The price path specified in clause 8; and
- The quality path specified in clause 9.

Clause 11 of the Determination requires Powerco to provide an Annual Compliance Statement (the Statement) to the Commission and disclose information relevant to the assessment of its performance against

- Allowable notional revenue (the price path); and
- Prescribed reliability limits for system average interruption duration index (SAIDI) values and system average interruption frequency (SAIFI) values (the quality path).

As required by clause 11.2(a) of the Determination, this Statement confirms that Powerco has complied with the price path in clause 8 of the Determination and the quality standards in clause 9 of the Determination for the 12 month Assessment Period ended 31 March 2017.

Powerco is available to assist the Commission with its review of this Statement and will provide any additional information the Commission may request.

Powerco completed this Statement on 25 May 2017. A copy is available at Powerco's principal office (Powerco, level 2, 84 Liardet Street, New Plymouth). The Statement is published on Powerco's website (www.Powerco.co.nz) and additional copies can be provided on request.

2 Assessment against the Price Path

Under the Determination, Price is separated into its two component parts:

- The portion attributable to the recovery of pass-through and recoverable costs (referred to as Pass-through prices); and
- The portion attributable to Distribution prices.

Compliance with the Distribution price segment is assessed by comparing the notional revenue[1] that the distribution prices have generated compared against allowable notional revenue.

Pass-through prices include the recovery of pass-through and recoverable costs attributable to the current period and any such costs from prior periods that have not previously been recovered. Pass-through and recoverable costs are defined in the Determination and include transmission costs, avoided cost of transmission, rates and levies. The Determination requires we demonstrate how we recover pass-through and recoverable costs through Pass-through prices.

Section Two of this Statement demonstrates our compliance with the price path and our recovery of pass-through and recoverable costs in pass-through prices.

2.1 Summary of Distribution Pricing Compliance Information

Powerco has complied with the price path for the Assessment Period 1 April 2016 to 31 March 2017 as demonstrated in Table 1.[2]

For presentation purposes, the Notional Revenue table set out in section 2.3 is an aggregate of the price and quantity information for each price group. More detailed information is contained in Attachment A of this Statement.

Clause 8.3 of the Determination states that to demonstrate compliance with the price path, "the notional revenue of a Non-exempt EDB in an Assessment Period must not exceed the allowable notional revenue for the assessment period."

As demonstrated by the calculation in Table 1 below, Powerco complies with the price path for the Assessment Period.

Table 1: Demonstrating compliance with the price path

DPP Requirement	NR is less than or equal to ANR
DPP Expression	NR ≤ ANR
Powerco's Result ($000)	254,349 ≤ 254,666

[1] The revenue is considered 'notional' because it is based on quantities that are lagged by two years rather than the quantities for the year in question. This approach ensures that both Allowable Notional Revenue and Notional Revenue can be accurately calculated at the time Powerco sets its Distribution prices as quantities are known.

[2] The figures in the pricing tables are in thousands of dollars. The underlying calculations are based on more detailed numbers (i.e. to more decimal places than shown in this document). This may cause rounding inconsistencies. These inconsistencies do not affect the overall compliance calculations which are based on the more detailed information.

2.2 Analysis of Allowable Notional Revenue

The 2017 Assessment Period is the second assessment period under the current DPP. The detailed calculation of Powerco's ANR for the 2017 Assessment period is provided in Table 2.

Table 2: Calculating Powerco's Allowable Notional Revenue (ANR)[2]

Powerco's Allowable Notional Revenue (ANR) **ANR2017 =** $(\sum DP_{i,2016}, Q_{i,2015} + (ANR_{2016} - NR_{2016}))(1 + \Delta CPI_{2017})(1 - X)$	
Calculation Components	**Amount ($000)**
$DP_{i,2016}, Q_{i,2015}$ represents the allowable notional distribution revenue for the assessment period. The distribution price for 2016 assessment period is multiplied with the corresponding quantities for the 2015 assessment period. The resulting product reflects the unadjusted distribution ANR for 2017.	253,085
ANR2016-NR2016 represents the revenue differential adjustment. It is the difference between allowable notional distribution revenue and notional distribution revenue for the prior assessment period.	412
$1 + \Delta CPI_{2017}$ Is where ΔCPI_{2017} is the movement in the consumer price index between September 2014 and September 2015.	1,169
(1-X) is the annual rate of change applicable to non-exempt EDBs as specified in Schedule 2 of the Determination. For Powerco this is set to zero.	0
ANR_{2017}	**254,666**

2.3 Analysis of Notional Revenue

2.3.1. Calculating Powerco's Notional Revenue (NR)

Notional Revenue is the product of each distribution price during any part of the Assessment Period and the quantity for each price for the Assessment period ending two years prior corresponding to that distribution price.

A summary of Powerco's Notional Revenue is included in Table 3 and a more detailed breakdown of how the Notional Revenue of $254,349k has been calculated is provided in Attachment A.

Table 3: Summary of Powerco's Notional Revenue (NR)

	NR by Price Component				
	Fixed	**Variable**	**Demand**	**Non-standard**	
Western Region	10,897	82,392	42,164	2,123	137,576
Eastern Region	35,432	64,467	1,046	15,828	116,773
NR_{2017}	46,329	146,859	43,210	17,951	**254,349**

2.4 Determining Distribution prices and Pass-through prices

The total price is comprised of distribution prices and pass-through prices. Distribution price is the portion of total price excluding the pass-through price. The pass-through price is the portion of total price attributable to pass-through and recoverable costs.

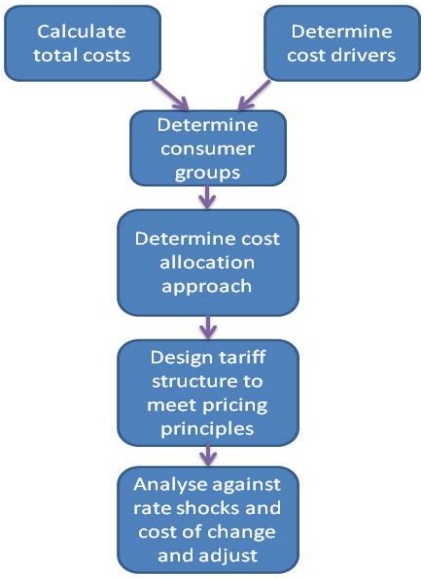
2.4.1. Determining distribution and pass-through prices

Powerco's pricing methodology[3] provides a detailed overview of the processes involved in price setting and is available on Powerco's website. The methodology used to calculate the distribution prices and allocate distribution prices and pass-through prices to tariff groups is summarised in figure one below.

Distribution prices are capped by the Allowable Notional Revenue for the Assessment Period. Pass-through prices are a combination of recoverable and pass-through costs for the current period and may include the pass-through balance from prior periods. For the 2017 Assessment Period the pass-through balance from prior years is $2,101. However, as this balance was not known when prices were set for the 2017 Assessment period, this balance is not included in pass-through pricing for this period. It will however be included in pricing for the year beginning 1 April 2017.

The overview of the pricing process included in Figure 1 illustrates how we allocate costs between tariff groups.

Figure 1: Overview of the pricing process



A description of the pricing process is:

- Estimate total costs for the pricing period. These include:
  - pass-through and recoverable costs for the Assessment Period (including any applicable pass-through balance from prior periods); and
  - distribution costs (including, capital costs, operating costs, maintenance costs and administration costs).
- Determine the key drivers of network expenditure;

[3] Refer http://www.powerco.co.nz/uploaded_files/Publications-and-Disclosures/New/pricing/Powerco-Pricing-Methodology-31-March-2016.pdf

- Determine suitable groupings of connections across each network based on similarities of network and consumer characteristics such as geography, rural/urban connection density, mains size, protection rating and/or transformer capacity;
- Determine the allocation of costs (such as operating costs, transmission costs and cost of capital) across each network and tariff category;
- Calculate distribution prices based on the relevant cost allocations, ensuring compliance with the relevant legal requirements and Allowable Notional Revenue cap; and
- Assess the pricing structure to take account of the effect of rate shocks and adjust as needed.

Specifically, the process to determine Pass-through prices is:

- Estimate total pass-through costs for the relevant pricing year (including any applicable pass-through balance);
- Forecast chargeable quantities for the same period based on growth assumptions used for budget setting; and
- Calculate pass-through prices to align pass-through revenue to pass-through costs.

At the end of the relevant pricing year we determine the actual chargeable quantities and apply these to the pass-through prices to determine the actual pass-through revenue for the pricing year. The pass-through revenue is then compared against the actual pass-through costs to determine the pass-through balance. This is explained further in section 2.5 of this document.

The nature and timing of the pricing process means that prices are set for the following pricing year before the end of the current pricing year. This means that the pass-through balance for the current year cannot be accurately determined at the time prices are set. Therefore any pass-through balance for the current year is not recovered until the second subsequent year. For example, any pass-through balance determined in the 2017 Assessment Period will not be recovered through pass-through pricing until the Assessment Period (and pricing period) beginning 1 April 2018.

As noted above, pass-through prices for the Assessment Period are the sum of:

- Estimated pass-through and recoverable costs for the assessment period in question; and
- Any under or over- recovery of pass-through costs and recoverable costs from a prior assessment period as reflected by the pass-through balance.

The portion of pass-through prices attributable to the current Assessment Period and the portion attributed to prior Assessment Periods is summarised in Table 4.

Table 4: Portion of pass-through prices relating to costs for this period and carried forward from prior assessment periods

Pass-through and recoverable costs	Forecast current assessment period ($000)	Carried forward from Prior assessment periods ($000)	Total pass-through costs to be recovered in Pass-through prices ($000)
Pass-through costs	3,558		**3,558**
Recoverable costs	115,438		**115,438**
Total pass-through and recoverable costs included in pass-through prices for the 2017 assessment period	**118,996**	**0**	**118,996**

2.4.2. The portion of distribution prices and pass-through prices included in pricing for the 2017 Assessment Period

At the beginning of each Assessment Period, Powerco publishes the overall price, and the portion that relates to pass-through prices and the portion that is distribution prices. This publication is available on our website and included for convenience in Attachment B.

2.4.3. Forecast v Actual pass-through and recoverable costs

As noted above, when setting the pass-through prices, Powerco forecasts pass-through and recoverable costs for the period. These costs and any known pass-through balance from prior periods are included as pass-through prices. At the end of the Assessment period, the actual pass-through and recoverable costs for the period are applied to actual quantities. Any under or over-recovery of pass-through and recoverable costs that has occurred due to a variance in cost or quantities forecast, is rolled into future periods in the pass-through balance.

Table 5 compares the forecast pass-through and recoverable costs, used to set pass-through prices for the Assessment Period, to the actual pass-through and recoverable costs applied to determine the closing pass-through balance.

Table 5: Actual and Forecast pass-through and recoverable costs

Pass-through and Recoverable costs	Actual ($000)	Forecast ($000)	Variance ($000)
Rates	1,898	1,606	(292)
Levies	1,643	1,952	309
Transpower connection and interconnection charges	100,292	100,382	90
Transpower new investment agreements	6,904	6,733	(171)
Distributed Generation Allowance (ACOT)	8,979	8,959	(20)
Capex Wash-up Adjustment	(636)	(636)	0
Total	**119,080**	**118,996**	**(84)**

Costs for the Assessment Period are forecast by Powerco in November as part of the company's annual budgeting process. These budgeted costs are used to estimate the forecast pass-through and recoverable costs included in pass-through prices for the period.

When these costs are forecast, Transpower costs and Distributed Generation costs are mostly known. Rates and levies are difficult to accurately forecast as any changes to current levies or rate charges are not known at the time of setting prices. Levies are forecast based on historic costs and any indication of increased or decreased work plans from the Commerce Commission or Electricity Authority. Rates are forecast based on current invoicing.

Actual costs are extracted from Powerco's financial system for the Assessment Period. For the 2017 Assessment Period the actual pass-through and recoverable costs incurred are similar in total to that forecast.

2.5 Pass-Through Balance

2.5.1. Calculating the pass-through balance

The Determination separates price into Distribution price and pass-through price. The Determination further introduces a pass-through balance. This is the mechanism used to facilitate the recovery of pass-through and recoverable costs through the pass-through price.

The pass-through balance represents the unrecovered balance of the difference between forecast and actual pass-through costs and recoverable costs for prior years. This balance is adjusted for the cost of debt specified by the Commission. The pass-through balance may be positive or negative in an assessment period.

When setting prices, pass-through and recoverable costs attributable to the period are forecast based on both known and expected costs. These costs are then applied to the forecast quantities for the pricing period. Both costs and quantities used are those applied in Powerco's budgeting process. The pricing period is the same as the assessment period.

At the end of the pricing period, actual pass through and recoverable costs, and actual quantities for the period are known. Any difference between forecast and actual results is managed through the Pass-Through balance. The movement in the Pass-through balance for the 2017 assessment period is calculated in Table 6.

Table 6: Calculation of the Pass-Through Balance (PTB)

$PTB_{,2017} = \sum_i PTP_{i,2017}, Q_{i2017} - K_{2017} - V_{2017} + PTB_{2016}(1 + r)$		
Calculation Components		**Result ($000)**
PTP_{2017},Q_{2017} for the Western Region	56,358	
PTP_{2017},Q_{2017} for the Eastern Region	62,488	
Total Powerco PTP_{2017},Q_{2017} is each pass-through price for the assessment period multiplied by the corresponding actual quantity for the assessment period (i.e. the pass-through and recoverable costs recovered in pass-through prices in the assessment period). Refer Attachment C for the detailed breakdown of this result.		118,846
K_{2017} is the sum of all actual pass-through costs that apply to the assessment period	(3,541)	
R_{2017} is the sum of all actual recoverable costs that apply to the assessment period	(115,539)	
Total Pass-through and Recoverable costs applying to the Assessment Period		(119,080)
PTB_{2016} is the closing Pass-through Balance from the prior year	2,101	
1+r = 1+ the cost of debt prescribed for the regulatory period of 6.09% and applied to the opening balance of the PTB	128	
PTB_{2016},(1+r) applies the cost of debt to the closing Pass-through Balance from the prior year(s)		2,229
$PTB_{,2017}$ is the closing Pass-through Balance for the assessment period that will be included in future pass-through prices[4]		**1,995**

[4] A positive balance indicates costs have been over-recovered in the prior and current period. This balance will be carried through to a future pricing period and reduce pass-through prices in that period.

2.5.2. Reconciliation between the pass-through balance for this Assessment Period with the pass-through balance for the preceding Assessment Period.

The closing pass-through balance for the 2017 Assessment period is $1,995k. The pass-through balance is caused by:

- Under forecasting pass-through costs[5]
- Under forecasting quantities for the Assessment Period
- Any prior period balance adjusted for the cost of debt.

As demonstrated in the table below, the movement in the pass through balance for the 2017 Assessment period is driven by higher than anticipated pass-through and recoverable costs. This results in actual pass-through revenue[6] for 2017 that is slightly lower than forecast.

Table 7: Reconciliation of the Pass-through Balance (PTB)

Pass-through and Recoverable costs	PTB_{2016}	PTB_{2017}
Forecasted pass-through costs	113,311	118,996
Actual pass-through revenue	115,476	118,846
Variance	**2,165**	**(150)**
Forecasted pass-through costs	113,311	118,996
Actual pass-through costs	113,375	119,080
Variance	**(64)**	**(84)**
Adjustment to the PTB	**2,101**	**(234)**
Closing balance from the prior year adjusted for the cost of debt		**2,229**
Closing Pass through balance for the 2017 assessment period that will be included in future pass-through prices.		**1,995**

2.6 Price Restructuring

The Determination specifies that any restructure of prices is required to be disclosed. A restructure of prices means either:

a) combining two or more consumer groups into one consumer group; or

b) separating a consumer group into two or more new consumer groups.

Powerco has not combined consumer groups or separated a consumer group into two or more groups during the 2017 Assessment Period. Powerco has however,

- Refined its methodology for determining the chargeable demands for the E100 and E300 price categories. This change affects 464 consumers and the calculation of allowable notional revenue and notional revenue for the period.

[5] The Determination groups pass-through and recoverable costs together as pass-through costs
[6] Pass-through revenue is the product of estimated pass-through prices and actual quantities for the Assessment Period.

- Continued to migrate a small number of large customers in the Tauranga region from the T43 to the T50 pricing category.

2.6.1. E100/E300 methodology refinements

Historically customers on these price categories were charged demand charges based on the average of their twelve highest half hourly peaks (kVA) over the previous twelve months. Based on feedback from retailers and customers we have moved to a less complicated, more cost reflective and transparent methodology. This involves taking historical half hourly (kW) Anytime Maximum Demands (AMD) and On Peak Demands (OPD) from the previous year to determine chargeable quantities.

From 1 April 2016 we split the existing demand charge into two. This allows us to separately apply a distribution charge and a transmission charge. The distribution charge will have the AMD quantity applied to it. The transmission charge will have the OPD quantity applied, similar to Transpower's current pricing methodology.

As the new chargeable quantities are not equivalent to the existing quantities we have rebalanced the associated charges. This ensures the change is revenue neutral. The allowable notional revenue for the Western region has decreased slightly in for the 2017 Assessment period due to this rebalancing of charges.

	Western Region	Eastern Region	Total PxQ for ANR calculation
$P_{2016}xQ_{2015}$ if E100/E300 methodology had not changed	$136,915	$116,172	$253,087
P_{2016} x Q_{2015} calculated for pricing post change to E100/E300. This is used in the calculation of ANR for the 2017 Assessment period.	$136,913	$116,172	$253,085

2.6.2. Migration of large customers

In the 2017 Assessment period Powerco has continued to migrate customers in the T43 price category to the T50 Asset based pricing category. These customers represent large connections in the Tauranga region.

This initiative commenced in 2017 and is aimed at introducing more cost reflective tariffs to these large consumers and we will eventually close the legacy T43 price category.

In the 2017 Assessment period a further three customers were migrated to the T50 price category equating to around $100k in charges. This resulted in an uplift in fixed charge notional revenue for the T50 price category while being offset by a similar decrease in variable charge revenue for the T43 price category.

The migration of these customers from one tariff group to another did not affect the Allowable Notional Revenue calculation for the 2017 Assessment period.

3 Assessment against the Quality Path

3.1 Summary of Quality Path Compliance Information

To demonstrate compliance with the quality standards Powerco must:

a) Comply with the annual reliability assessment specified in clause 9.2 of the Determination, such that the assessed values for SAIDI and SAIFI for the assessment period must not exceed the reliability limits for SAIDI and SAIFI; or

b) Have complied with the annual reliability assessments for each of the two immediately preceding assessment periods.

Powerco has complied with the annual reliability assessment for both SAIDI and SAIFI.

Table 8: annual reliability assessment

DPP Requirement	Powerco Result 2017	2017 Outcome
$SAIDI_{Assess,2017} \leq$ SAIDI Limit	203.879 ≤ 210.629	Complies
$SAIFI_{Assess,2017} \leq$ SAIFI Limit	2.483 ≤ 2.520	Complies

Schedules 4a and 5b of the Determination specify the reliability limits, unplanned boundary values, caps, collars and targets for the assessment period. These metrics are included in Attachment E of this document.

3.2 Reliability assessment – SAIDI

To calculate SAIDI, the assessment dataset is populated by listing all planned (Class B) and all unplanned (Class C) interruptions on Powerco's network for the assessment period. Planned SAIDI is then multiplied by 0.5. Unplanned SAIDI (Class C) is normalised for Major Event Days (MEDs).

A MED occurs when the daily SAIDI value for Class C (unplanned) interruptions exceeds Powerco's Unplanned SAIDI Boundary Value. The Unplanned SAIDI boundary value for Powerco is for the current Regulatory Period is 11.214 minutes.

Table 9: Calculating Powerco's SAIDI Assessment Values

$SAIDI_{Assess,2017} = (0.5 \times SAIDI_B) + SAIDI_C$		
Calculation Components	**Result**	**Contribution to SAIDI (Minutes)[7]**
Assessment dataset for $SAIDI_B$ – total planned SAIDI for the assessment period.	45.851	
0.5 x $SAIDI_B$ - the contribution of planned SAIDI to the SAIDI assessment, being all planned SAIDI in the Assessment dataset multiplied by 0.5.		22.925
Assessment dataset for $SAIDI_C$ – total unplanned SAIDI for the assessment period.	196.196	
Normalise Assessment Dataset For any day in the Assessment dataset where the daily Unplanned SAIDI value is greater than the SAIDI Unplanned Boundary Value, replace the daily Unplanned SAIDI Value with the SAIDI Unplanned Boundary Value. There was one major event day where the daily unplanned SAIDI value exceeded the SAIDI Unplanned Boundary Value. This resulted in a decrease of 15.296 minutes in the dataset.	(15.242)	
$SAIDI_C$		180.954
$SAIDI_{Assess,2017}$		203.879

3.2.1. Major Event Days in the Assessment Period

There was one SAIDI major event day in the Assessment Period.

Interruption Date	Pre-normalised Unplanned SAIDI	SAIDI Adjustment for normalisation	Normalised SAIDI (Boundary Value)
14/11/2016	26.456	(15.242)	11.214

Further information on this major event day is included in Attachment F.

3.3 Reliability assessment – SAIFI

To calculate SAIFI, the assessment dataset is populated by listing all planned (class B) and all unplanned (Class C) interruptions on Powerco's network for the assessment period. Planned SAIDI is then multiplied by 0.5. Unplanned SAIDI (class C) is normalised for Major Event Days (MEDs).

[7] The figures in the reliability tables are to three decimal places. The underlying calculations are based on more detailed numbers (i.e. to more decimal places than shown in this document). This may cause rounding inconsistencies. These inconsistencies do not affect the overall compliance calculations which are based on the more detailed information.

A MED occurs when the daily SAIFI value for Class C (unplanned) interruptions exceeds Powerco's SAIFI Boundary Value. The SAIFI boundary value for Powerco is specified in Schedule 4a of the Determination. For the current Regulatory Period the SAIFI Boundary Value is an event frequency of 0.064.

Table 10: Calculating Powerco's SAIFI Assessment Values

$SAIFI_{Assess,2017} = (0.5 \times SAIFI_B) + SAIFI_C$		
Calculation Components	**Result**	**Contribution to SAIDI (Minutes)[6]**
Assessment dataset for $SAIFI_B$ – total planned SAIFI for the assessment period.	0.207	
0.5 x $SAIFI_B$ - the contribution of planned SAIFI to the SAIFI assessment, being all planned SAIFI in the Assessment dataset multiplied by 0.5.		0.103
Assessment dataset for $SAIFI_C$ – total unplanned SAIFI for the assessment period.	2.298	
Normalise Assessment Dataset For any day in the Assessment dataset where the daily Unplanned SAIFI value is greater than the SAIFI Unplanned Boundary Value, replace the daily Unplanned SAIFI Value with the SAIFI Unplanned Boundary Value. There were two SAIFI major event days in the Assessment Period. This resulted in a decrease of 0.085 in the dataset.	(0.072)	
$SAIFI_C$		2.226
$SAIFI_{Assess,2017}$		2.483

3.3.1. Major Event Days in the Assessment Period

There were two SAIFI major event days in the Assessment Period. Further information on these major event days is included in Attachment F.

3.4 Compliance with the Multi-Year Assessment for Quality Standards

Under clause 9.1(b) of the Determination, compliance with the quality standards may also be demonstrated by showing that compliance with the annual reliability assessments has been achieved in each of the two preceding assessment periods.

The 2017 assessment period is the second assessment period under the Determination and the quality measures have changed from those applied in 2015. However, the multi-year assessment still applies and assessment for the 2015 uses the limits and calculations applicable to that regulatory period.

Table 11: Reliability results for 2015 to 2017

Year	Before Normalisation		Reliability Results	
	SAIDI	SAIFI	SAIDI	SAIFI
2015	227.79	2.28	217.64	2.28
2016	195.96	2.07	178.44	2.07
2017	219.121	2.401	203.879	2.483

An "X" in table 12 below signifies a year in which Powerco's results for SAIDI or SAIFI exceeded its respective reliability limits, while a tick signifies a year in which Powerco's results for SAIDI or SAIFI were less than, or equal to, the respective reliability limits.

Powerco has met the requirements for the multi-year assessment for quality standards as demonstrated below.

Table 12 – Compliance with the multi-year assessment

	2015	2016	2017	Result
SAIDI	X	✓	✓	Complies
SAIFI	✓	✓	✓	Complies

3.5 Reliability Policies and Procedures

3.5.1. Recording Interruptions

Powerco has well developed processes to capture outage / interruption information and ensure the accuracy of these records. Key aspects of this calculation include:

- The underlying reliability records are created and maintained by Powerco's Network Operations Team who initiate and manage all fault reports;
- The start of an interruption is recorded when there is a SCADA alarm for assets that have a real time link to Powerco's SCADA system. For other assets, the interruption is recorded when Powerco is first notified of the fault by retailers or field staff.
- All fault reports contain switching sequences and SCADA printouts of transformers and areas affected, along with any other relevant information to support accurate evaluation.
- Details on the fault report are entered into the Powerco Outage Management System (OMS) database[8]. Information recorded includes the date, time and cause of the fault, voltage of the faulted circuit and the transformers affected.
- The faults recorded may be due to third party causes (transmission problems, generation problems, or the actions of other electricity industry participants or third parties) this information is also recorded in the OMS database but excluded for compliance reporting.

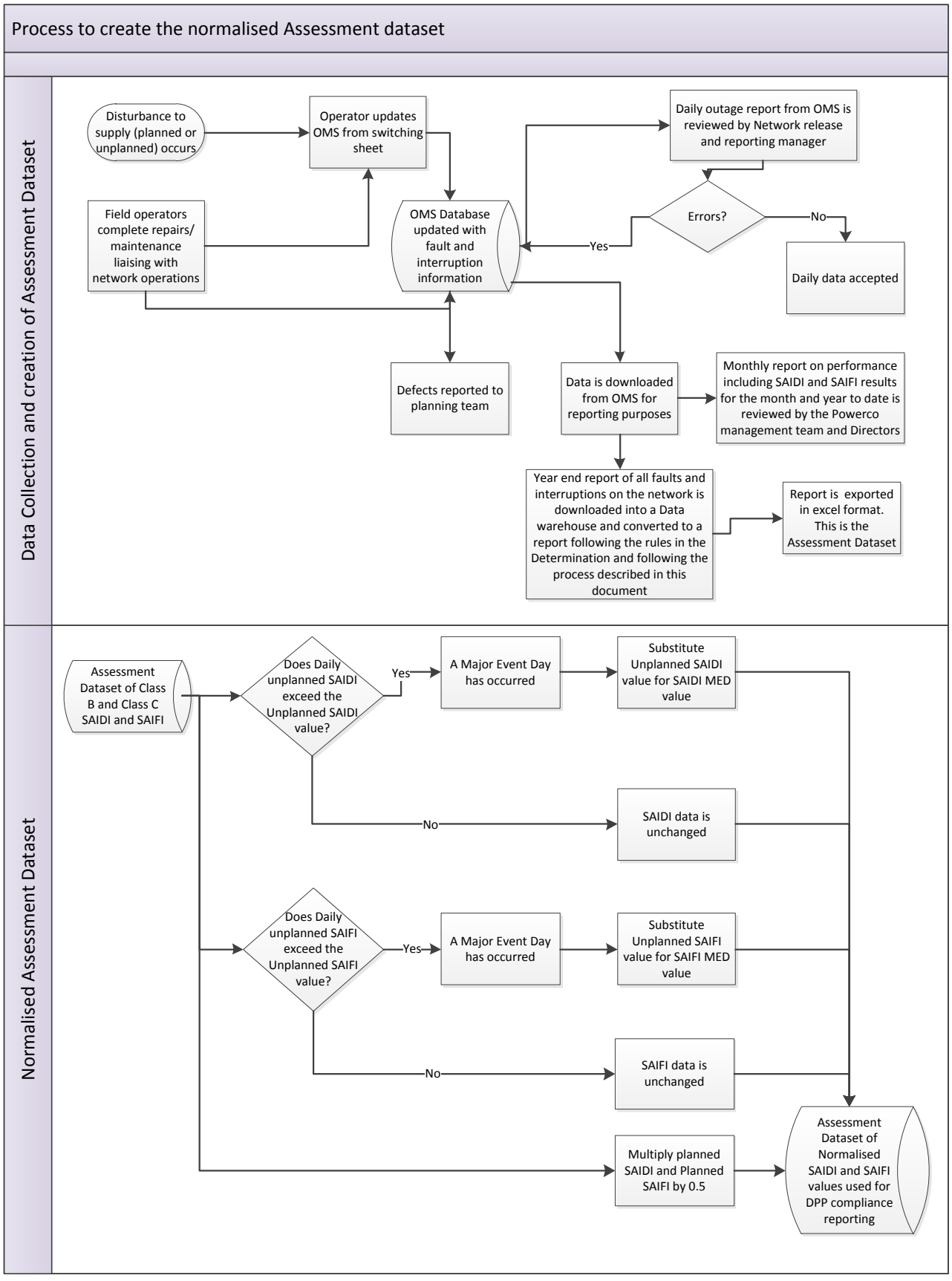
3.5.2. Calculating SAIDI and SAIFI

In utilising the input data noted above, Powerco applies processes to ensure compliance with Schedule 4a of the Determination, as shown diagrammatically in figure two below. In particular the following key calculation steps are applied:

- To calculate SAIDI and SAIFI customer connection numbers ("ICPs") are calculated from the Geographic Information System ("GIS") for the transformers affected. ICPs are updated to the GIS daily from the Electricity Registry.
- The customer connection number used in the annual calculation of SAIDI and SAIFI is the average of customer numbers at the end of each month of the Assessment year. The sum of all customer minutes interrupted is divided by the average customer connection numbers to derive the annual SAIDI minutes and SAIFI value.
- Calculation of the final year result is completed using the outage / interruption records in the Outage Management Database noting a range of global corrections and refinements are required as set out below.
- There are a number of practical delays affecting the recorded restoration time for many faults; these include SCADA polling delays, voice communication constraints and clock time coding discrepancies. To correct for these discrepancies an adjustment of three minutes per interruption is made across all fault records.[9]
- As specified by the Determination, data is limited to include only Powerco interruptions that cause a cessation of electricity for a period of at least one minute, affect at least one consumer and occur on an electricity line capable of conveying electricity at a voltage of at least 3.3 kV.
- The unplanned data is normalised to account for the impact of MEDs.
- Planned SAIDI and SAIFI data is multiplied by 0.5.

[8] Powerco note the introduction of new systems to assist with the management of outages and interruptions during the 2015 Assessment Period. This Outage Management System (OMS) provides enhanced oversight and recording of outages, enhancing the robustness of recording processes.
[9] This adjustment was included in the reference dataset that calculates the reliability limits under the Determination and hence the process ensures a comparison of results across periods.

Figure 2: Powerco's process to create the normalised dataset



4 Amalgamation and Mergers

Powerco has not completed an amalgamation or merger with another EDB during the Assessment Period.

5 Major Transactions

Powerco has not entered into a major transaction where:

(i) The regulatory investment value of Powerco's assets associated with the provision of electricity distribution services as at the start of the 2018 assessment period is anticipated to increase or decrease by more than 10% as a result of the transaction; or

(ii) Powerco's notional revenue for the 2018 assessment period is anticipated to increase or decrease by more than 10% as a result of the transaction.

6 Transfer of System Fixed Assets from or to Transpower

Powerco has not received a transfer of transmission assets from Transpower that become system fixed assets, or transferred system fixed assets to Transpower in the 2017 assessment period.

Deloitte.

INDEPENDENT AUDITOR'S REPORT
TO THE DIRECTORS OF POWERCO LIMITED AND THE COMMERCE COMMISSION

Report on the Annual Compliance Statement

We have been engaged by the Board of Directors of Powerco Limited to conduct a reasonable assurance engagement relating to provide an opinion on Sections 1, 2, 3, 4, 5 and 6 and the related Appendices A to G of the Annual Compliance Statement for the compliance year ended 31 March 2017 ('the Annual Compliance Statement') of the Company have been prepared, in all material respects, in accordance with the Electricity Distribution Services Default Price-Quality Path Determination 2015 ('the Determination').

Board of Directors' Responsibility

Board of Directors is responsible for the preparation of the Annual Compliance Statement in accordance with the Determination, and for such internal control as the Board of Directors determine is necessary to enable the preparation of the Annual Compliance Statement that is free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on Powerco Limited's compliance with Annual Compliance Statement, in all material respects. Our engagement has been conducted in accordance with Standard on Assurance Engagements 3100: *Compliance Engagements* ('SAE 3100') issued by the External Reporting Board, to provide reasonable assurance that Powerco Limited has complied with the Electricity Distribution Services Default Price-Quality Path Determination 2015. Our procedures included:

- We have performed 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.

These procedures have been undertaken to form an opinion as to whether Powerco Limited has complied, in all material respects, with the Determination for the period 1 April 2016 to 31 March 2017.

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

Inherent Limitations

Because of the inherent limitations in the evidence gathering procedures, it is possible that fraud, error or non-compliance may occur and not be detected. As the procedures performed for this engagement are not performed continuously throughout the period 1 April 2016 to 31 March 2017 and the procedures performed in respect of Powerco's compliance with the Determination are undertaken on a test basis, our assurance engagement cannot be relied on to detect all instances where Powerco Limited may not have complied with the Determination.

Deloitte.

Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Professional and Ethical Standard 1 (Revised): *Code of Ethics for Assurance Practitioners* issued by the New Zealand Auditing and Assurance Standards Board, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Other than in our capacity as auditor and the provision of other assurance services including the audit of regulatory disclosure statements and trustee reporting, we have no relationship with or interests in the Company or any of its subsidiaries. These services have not impaired our independence as auditor of Powerco Limited.

The firm applies Professional and Ethical Standard 3 (Amended): *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements* issued by the New Zealand Auditing and Assurance Standards Board, and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Use of Report

This report is provided solely for your exclusive use and solely for the purpose of providing you with independent audit assurance whether the Annual Compliance Statement has been prepared, in all material respects, in accordance with the Determination. Our report is not to be used for any other purpose, recited or referred to in any document, copied or made available (in whole or in part) to any other person without our prior written express consent. We accept or assume no duty, responsibility or liability to any other party in connection with the report or this engagement, including without limitation, liability for negligence in relation to the opinion expressed in this report.

Opinion

This opinion has been formed on the basis of, and is subject to, the inherent limitations outlined elsewhere in this independent assurance report.

In our opinion, Powerco Limited has complied, in all material respects, with the Electricity Distribution Services Default Price-Quality Path Determination 2015 for the period 1 April 2016 to 31 March 2017.

Chartered Accountants
25 May 2017
Wellington, New Zealand

Appendices

The following list of appendices provides further information supporting this compliance statement.

Attachment reference	Information provided
A – Calculating notional revenue	Details the distribution price and quantity for each tariff group. Powerco's Western and Eastern regions are provided separately. The product of distribution price and quantity is Powerco's notional revenue for the assessment period.
B – Portion of pass-through prices and distribution prices	Separates total price into pass-through prices and distribution prices. This information is published at the beginning of each assessment period. The prices referred to in the schedule as "transmission prices" is the pass-through price portion.
C – Pass-through prices and quantities for the assessment period	Details the pass-through price and corresponding actual quantities for each tariff group. Powerco's Western and Eastern regions are provided separately. The product of pass-through price and quantity is Powerco's pass-through revenue for the Assessment Period that is included in the pass-through balance information in section 2.5 of this document.
D – Transpower new investment contracts	Evidence of the amount of charge relating to any investment contract entered into in the Assessment Period consistent with clause 3.1.3(c) of the IM Determination. A table of all new investment contracts is also included.
E – Reliability limits, boundary values, target, cap and collar	Lists the SAIDI and SAIFI limits, boundary values used to determine Major Event Days, target, Cap and Collar values as specified in the Determination.
F – Commentary on Major Event Days	Provides further detail on reliability and major event days.
G – Compliance references	Notes the compliance requirements from the Determination and where they are evidenced in this Compliance Statement.

8 Attachment A – Calculating Notional Revenue

Distribution Prices FY17 (Period 1 April 2016 to 31 March 2017)

Western Network

						Fixed					Variable					Individually Priced				
						Network Asset Charge					Volume Charge		Demand Charge							
	Tariff Group	GXP Group	GXP			ICP $/Month	ICP cents/day	Transformer $/day	Installed Capacity $/kVA/Month	CT/VT Charge ($/day)	Day Rate c/kWh	Night Rate c/kWh	Dist-$/kW /Month	Trans-$/kW /Month	$/kVAr /Month	ABP ($/AMD)	Indirect Fixed ($/ICP)	Indirect Variable ($/OPD)	Connection charge ($/AMD)	Interconnection charge ($/OPD)
											CTUD	CTUN								
	Residential+Small Commercial																			
E1CA	E1C	A	Brunswick	BRK	17		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Brunswick	BRK	18		15.00				5.9400	1.2000	6.3700							
E1CA	E1C	A	Bunnythorpe	BPE	19		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Bunnythorpe	BPE	20		15.00				5.9400	1.2000	6.3700							
E1CA	E1C	A	Carrington	CST	21		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Carrington	CST	22		15.00				5.9400	1.2000	6.3700							
E1CA	E1C	A	Huirangi	HUI	23		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Huirangi	HUI	24		15.00				5.9400	1.2000	6.3700							
E1CA	E1C	A	Linton	LTN	25		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Linton	LTN	26		15.00				5.9400	1.2000	6.3700							
E1CA	E1C	A	Moturoa / New Plymouth	NPL	27		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Moturoa / New Plymouth	NPL	28		15.00				5.9400	1.2000	6.3700							
E1CA	E1C	A	Stratford	SFD	29		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Stratford	SFD	30		15.00				5.9400	1.2000	6.3700							
E1CA	E1C	A	Wanganui	WGN	31		0.00				5.9400	1.2000	6.3700							
E1UCA	E1UC	A	Wanganui	WGN	32		15.00				5.9400	1.2000	6.3700							
E1CB	E1C	B	Greytown	GYT	34		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Greytown	GYT	35		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Hawera	HWA	36		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Hawera	HWA	37		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Mangamaire	MGM	38		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Mangamaire	MGM	39		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Marton	MTN	40		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Marton	MTN	41		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Masterton	MST	42		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Masterton	MST	43		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Mataroa	MTR	44		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Mataroa	MTR	45		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Ohakune	OKN	46		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Ohakune	OKN	47		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Opunake	OPK	48		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Opunake	OPK	49		15.00				8.0800	1.6000	9.1500							
E1CB	E1C	B	Waverley	WVY	50		0.00				8.0800	1.6000	9.1500							
E1UCB	E1UC	B	Waverley	WVY	51		15.00				8.0800	1.6000	9.1500							
Medium/Large	***Medium/Large Commercial***																			
E100A	E100	A	Carrington	CST	54	291.00				8.06			0.3234		7.00					
E100A	E100	A	Huirangi	HUI	55	291.00				8.06			0.3234		7.00					
E100A	E100	A	Moturoa / New Plymouth	NPL	56	291.00				8.06			0.3234		7.00					
E100A	E100	A	Stratford	SFD	57	291.00				8.06			0.3234		7.00					
E100B	E100	B	Hawera	HWA	58	291.00				8.06			0.6542		7.00					
E100C	E100	C	Waverley	WVY	59	291.00				8.06			0.5758		7.00					
E100D	E100	D	Opunake	OPK	60	291.00				8.06			0.5905		7.00					
E100E	E100	E	Brunswick	BRK	61	291.00				8.06			0.3790		7.00					
E100E	E100	E	Wanganui	WGN	62	291.00				8.06			0.3790		7.00					
E100F	E100	F	Marton	MTN	63	291.00				8.06			0.4561		7.00					
E100G	E100	G	Mataroa	MTR	64	291.00				8.06			0.6216		7.00					
E100G	E100	G	Ohakune	OKN	65	291.00				8.06			0.6216		7.00					
E100H	E100	H	Masterton	MST	66	291.00				8.06			0.5593		7.00					
E100H	E100	H	Greytown	GYT	67	291.00				8.06			0.5593		7.00					
E100I	E100	I	Bunnythorpe	BPE	68	291.00				8.06			0.3423		7.00					
E100I	E100	I	Linton	LTN	69	291.00				8.06			0.3423		7.00					
E100J	E100	J	Mangamaire	MGM	70	291.00				8.06			0.4085		7.00					
E300A	E300	A	Carrington	CST	72				1.85	8.06			0.1412		7.00					
E300A	E300	A	Huirangi	HUI	73				1.85	8.06			0.1412		7.00					
E300A	E300	A	Moturoa / New Plymouth	NPL	74				1.85	8.06			0.1412		7.00					
E300A	E300	A	Stratford	SFD	75				1.85	8.06			0.1412		7.00					
E300B	E300	B	Hawera	HWA	76				1.85	8.06			0.2651		7.00					
E300C	E300	C	Waverley	WVY	77				1.85	8.06			0.5282		7.00					
E300D	E300	D	Opunake	OPK	78				1.85	8.06			0.2982		7.00					
E300E	E300	E	Brunswick	BRK	79				1.85	8.06			0.1502		7.00					
E300E	E300	E	Wanganui	WGN	80				1.85	8.06			0.1502		7.00					
E300F	E300	F	Marton	MTN	81				1.85	8.06			0.2395		7.00					
E300G	E300	G	Mataroa	MTR	82				1.85	8.06			0.4026		7.00					
E300G	E300	G	Ohakune	OKN	83				1.85	8.06			0.4026		7.00					
E300H	E300	H	Masterton	MST	84				1.85	8.06			0.3444		7.00					
E300H	E300	H	Greytown	GYT	85				1.85	8.06			0.3444		7.00					
E300I	E300	I	Bunnythorpe	BPE	86				1.85	8.06			0.2362		7.00					
E300I	E300	I	Linton	LTN	87				1.85	8.06			0.2362		7.00					
E300J	E300	J	Mangamaire	MGM	88				1.85	8.06			0.2504		7.00					
SPECIAL	SPECIAL		Asset Based							8.06					7.00	48.98	11,700.21	10.21		
SPECIAL	SPECIAL		By Pass							8.06					0.00		115,210.50			
SPECIAL	SPECIAL		BALANCE							8.06					0.00		281,905.00			
SPECIAL	SPECIAL		SWIFT							8.06					0.00		103,855.00			
SPECIAL	SPECIAL		Hau Nui Generation							8.06					0.00		100,997.70			
SPECIAL	SPECIAL		Taranua Generation							8.06					0.00		235,501.37			
SPECIAL	SPECIAL		Other Generation							8.06					0.00					
										8.06					0.00					

Western Network

Quantities FY15 (1 April 2014 to 31 March 2015)

Tariff Group	GXP Group	GXP	ICP No.'s (Average)	ICP Days	ICP Months	kVA Installed	CT/VTs	kWh Day	kWh Night	kW Demand (AMD for E100/E300)	OPD (kW)	$/kVAr /Month	Individually Priced: Asset Value / AMD	Individually Priced: AMD	Individually Priced: OPD
Residential+Small Commercial															
E1CA	A	Brunswick	6,492	2,369,604		-	-	36,611,183	11,171,532	133,382	-	-	-	-	-
E1UCA	A	Brunswick	5,394	1,968,933		-	-	30,420,680	9,282,563	110,829	-	-	-	-	-
E1CA	A	Bunnythorpe	17,172	6,267,622		-	-	125,421,666	37,813,597	364,250	-	-	-	-	-
E1UCA	A	Bunnythorpe	16,051	5,858,759		-	-	117,239,891	35,346,860	340,488	-	-	-	-	-
E1CA	A	Carrington	9,040	3,299,489		-	-	64,576,459	18,557,404	190,031	-	-	-	-	-
E1UCA	A	Carrington	11,588	4,229,744		-	-	82,783,089	23,789,463	243,606	-	-	-	-	-
E1CA	A	Hurangi	3,675	1,341,238		-	-	16,268,419	5,742,834	90,013	-	-	-	-	-
E1UCA	A	Hurangi	3,189	1,163,852		-	-	14,116,833	4,983,313	78,108	-	-	-	-	-
E1CA	A	Linton	8,131	2,967,633		-	-	57,900,809	17,885,085	194,035	-	-	-	-	-
E1UCA	A	Linton	8,286	3,024,397		-	-	59,008,319	18,227,186	197,747	-	-	-	-	-
E1CA	A	Moturoa / New Plymouth	4,355	1,589,564		-	-	23,526,329	6,733,291	90,010	-	-	-	-	-
E1UCA	A	Moturoa / New Plymouth	4,298	1,568,807		-	-	23,219,115	6,645,365	78,965	-	-	-	-	-
E1CA	A	Stratford	4,423	1,614,255		-	-	45,925,533	14,146,639	156,368	-	-	-	-	-
E1UCA	A	Stratford	3,795	1,385,169		-	-	39,408,040	12,139,028	134,177	-	-	-	-	-
E1CA	A	Wanganui	5,205	1,899,837		-	-	33,653,625	9,731,026	113,005	-	-	-	-	-
E1UCA	A	Wanganui	4,521	1,650,049		-	-	29,228,891	8,451,603	98,148	-	-	-	-	-
E1CB	B	Greytown	3,595	1,312,120		-	-	27,144,391	10,896,693	78,098	-	-	-	-	-
E1UCB	B	Greytown	3,028	1,105,093		-	-	22,861,535	9,177,407	65,776	-	-	-	-	-
E1CB	B	Hawera	3,548	1,295,061		-	-	25,861,704	9,182,779	77,849	-	-	-	-	-
E1UCB	B	Hawera	5,579	2,036,251		-	-	40,662,889	14,438,273	122,403	-	-	-	-	-
E1CB	B	Mangamaire	2,243	818,594		-	-	15,912,829	5,108,482	45,109	-	-	-	-	-
E1UCB	B	Mangamaire	2,031	741,239		-	-	14,409,109	4,625,743	40,847	-	-	-	-	-
E1CB	B	Marton	3,902	1,424,278		-	-	28,569,473	9,318,791	80,700	-	-	-	-	-
E1UCB	B	Marton	2,105	768,396		-	-	15,413,191	5,027,475	43,537	-	-	-	-	-
E1CB	B	Masterton	10,638	3,882,707		-	-	71,120,781	24,672,364	208,832	-	-	-	-	-
E1UCB	B	Masterton	6,507	2,375,141		-	-	43,506,215	15,092,652	127,748	-	-	-	-	-
E1CB	B	Mataroa	1,719	627,557		-	-	11,102,539	3,687,734	33,501	-	-	-	-	-
E1UCB	B	Mataroa	1,054	384,877		-	-	6,909,122	2,261,666	20,546	-	-	-	-	-
E1CB	B	Ohakune	624	227,592		-	-	3,762,653	1,265,476	11,700	-	-	-	-	-
E1UCB	B	Ohakune	561	204,780		-	-	3,385,514	1,138,634	10,527	-	-	-	-	-
E1CB	B	Opunake	1,296	473,049		-	-	12,182,694	5,133,407	46,094	-	-	-	-	-
E1UCB	B	Opunake	1,740	635,016		-	-	16,353,920	6,891,031	61,877	-	-	-	-	-
E1CB	B	Waverley	-	-		-	-	-	-	-	-	-	-	-	-
E1UCB	B	Waverley	1,338	488,239		-	-	11,179,644	3,982,890	36,383	-	-	-	-	-
Medium/Large Commercial						-	-	-	-	-	-	-	-	-	-
E100	A	Carrington	40		480	-	-	-	-	1,969,905	863,590	-	-	-	-
E100	A	Hurangi	2		24	-	-		-	93,865	27,010	-	-	-	-
E100	A	Moturoa / New Plymouth	4		48	-	-		-	168,630	56,575	-	-	-	-
E100	A	Stratford	7		80	-	-		-	323,298	110,960	-	-	-	-
E100	B	Hawera	9		108	-	-		-	412,450	212,430	-	-	-	-
E100	C	Waverley	-		-	-	-		-	-	-	-	-	-	-
E100	D	Opunake	1		12	-	-		-	51,100	10,950	-	-	-	-
E100	E	Brunswick	10		120	-	-	-	-	528,885	282,510	-	-	-	-
E100	E	Wanganui	13		153	-	-	-	-	529,980	246,923	-	-	-	-
E100	F	Marton	6		72	-	-	-	-	350,765	168,265	-	-	-	-
E100	G	Mataroa	4		50	-	-	-	-	264,990	138,518	-	-	-	-
E100	G	Ohakune	-		-	-	-	-	-	-	-	-	-	-	-
E100	H	Masterton	23		274	-	-	-	-	1,104,368	538,314	-	-	-	-
E100	H	Greytown	5		61	-	-	-	-	326,553	183,473	-	-	-	-
E100	I	Bunnythorpe	64		772	-	1	-	-	3,344,860	1,627,353	-	-	-	-
E100	I	Linton	38		460	-	-	-	-	1,866,853	788,583	-	-	-	-
E100	J	Mangamaire	2		24	-	-		-	105,485	36,865	-	-	-	-
E300	A	Carrington	42			456,931	10	-	-	8,506,690	4,145,305	-	-	-	-
E300	A	Hurangi	7			172,292	2		-	4,689,824	3,234,569	-	-	-	-
E300	A	Moturoa / New Plymouth	14			137,490	7		-	2,160,435	873,445	-	-	-	-
E300	A	Stratford	12			198,625	1		-	3,614,960	1,777,550	-	-	-	-
E300	B	Hawera	10			179,400	1		-	3,205,065	1,288,815	-	-	-	-
E300	C	Waverley	2			19,331	-		-	470,850	315,543	-	-	-	-
E300	D	Opunake	2			36,000	2		-	807,380	416,100	-	-	-	-
E300	E	Brunswick	17			139,200	2	0	0	2,290,375	1,209,610	-	-	-	-
E300	E	Wanganui	16			261,000	6	-	-	3,789,065	1,945,085	-	-	-	-
E300	F	Marton	10			125,400	3	-	-	2,187,810	1,169,460	-	-	-	-
E300	G	Mataroa	3			36,483	-	-	-	590,935	414,762	-	-	-	-
E300	G	Ohakune	-			-	-		-	-	-	-	-	-	-
E300	H	Masterton	19			159,360	1	-	-	2,757,210	1,470,585	-	-	-	-
E300	H	Greytown	1			7,800	-	-	-	155,490	36,500	-	-	-	-
E300	I	Bunnythorpe	53			605,902	14	-	-	10,539,740	5,227,773	-	-	-	-
E300	I	Linton	30			414,282	6	-	-	6,877,695	3,856,590	-	-	-	-
E300	J	Mangamaire	2			15,000	1	-	-	289,810	103,295	-	-	-	-
SPECIAL	SPECIAL	Asset Based	8			-	2	-	-	-	-	6,989	13,919	13,919	4,881
SPECIAL	SPECIAL	By Pass	5				1		-			-	1	5,662	3,379
SPECIAL	SPECIAL	BALANCE	1			-	-		-			-	1	-	-
SPECIAL	SPECIAL	SWIFT	1			-	-		-			-			
SPECIAL	SPECIAL	Hau Nui Generation	1			-	-		-			-			
SPECIAL	SPECIAL	Tararua Generation	1			-	-		-			-			
SPECIAL	SPECIAL	Other Generation	6			-	-		-			-			

Western Network

	Tariff Group	GXP Group	GXP	Distribution Revenue (FY17 Prices) Fixed (Monthly)	Fixed (Daily)	Variable	Demand	Non-standard	Total
	Residential+Small Commercial								
E1CA	E1C	A	Brunswick	-	-	2,308,763	849,644	-	**3,158,407**
E1UCA	E1UC	A	Brunswick	-	295,340	1,918,379	705,980	-	**2,919,699**
E1CA	E1C	A	Bunnythorpe	-	-	7,903,810	2,320,271	-	**10,224,081**
E1UCA	E1UC	A	Bunnythorpe	-	878,814	7,388,212	2,168,910	-	**10,435,936**
E1CA	E1C	A	Carrington	-	-	4,058,531	1,210,497	-	**5,269,028**
E1UCA	E1UC	A	Carrington	-	634,462	5,202,789	1,551,783	-	**7,389,034**
E1CA	E1C	A	Huirangi	-	-	1,035,258	573,382	-	**1,608,640**
E1UCA	E1UC	A	Huirangi	-	174,578	898,340	497,549	-	**1,570,466**
E1CA	E1C	A	Linton	-	-	3,653,929	1,236,005	-	**4,889,934**
E1UCA	E1UC	A	Linton	-	453,660	3,723,820	1,259,647	-	**5,437,127**
E1CA	E1C	A	Moturoa / New Plymouth	-	-	1,478,263	509,663	-	**1,987,926**
E1UCA	E1UC	A	Moturoa / New Plymouth	-	235,321	1,458,960	503,008	-	**2,197,289**
E1CA	E1C	A	Stratford	-	-	2,897,736	996,064	-	**3,893,800**
E1UCA	E1UC	A	Stratford	-	207,775	2,486,506	854,708	-	**3,548,989**
E1CA	E1C	A	Wanganui	-	-	2,115,798	719,844	-	**2,835,642**
E1UCA	E1UC	A	Wanganui	-	247,507	1,837,615	625,200	-	**2,710,323**
E1CB	E1C	B	Greytown	-	-	2,367,614	714,598	-	**3,082,212**
E1UCB	E1UC	B	Greytown	-	165,764	1,994,051	601,849	-	**2,761,663**
E1CB	E1C	B	Hawera	-	-	2,236,550	712,316	-	**2,948,866**
E1UCB	E1UC	B	Hawera	-	305,438	3,516,574	1,119,990	-	**4,942,001**
E1CB	E1C	B	Mangamaire	-	-	1,367,492	412,751	-	**1,780,243**
E1UCB	E1UC	B	Mangamaire	-	111,186	1,238,268	373,747	-	**1,723,200**
E1CB	E1C	B	Marton	-	-	2,457,514	738,402	-	**3,195,916**
E1UCB	E1UC	B	Marton	-	115,259	1,325,825	398,367	-	**1,839,452**
E1CB	E1C	B	Masterton	-	-	6,141,317	1,910,817	-	**8,052,134**
E1UCB	E1UC	B	Masterton	-	356,271	3,756,785	1,168,890	-	**5,281,946**
E1CB	E1C	B	Mataroa	-	-	956,089	306,534	-	**1,262,623**
E1UCB	E1UC	B	Mataroa	-	57,732	586,364	187,996	-	**832,091**
E1CB	E1C	B	Ohakune	-	-	324,270	107,054	-	**431,324**
E1UCB	E1UC	B	Ohakune	-	30,717	291,768	96,323	-	**418,808**
E1CB	E1C	B	Opunake	-	-	1,066,496	421,764	-	**1,488,260**
E1UCB	E1UC	B	Opunake	-	95,252	1,431,653	566,171	-	**2,093,077**
E1CB	E1C	B	Waverley	-	-	-	-	-	**-**
E1UCB	E1UC	B	Waverley	-	73,236	967,041	332,904	-	**1,373,182**
Medium/Large	***Medium/Large Commercial***			-	-	-	-	-	**-**
E100A	E100	A	Carrington	139,680	-	-	637,067	-	**776,747**
E100A	E100	A	Huirangi	6,984	-	-	30,337	-	**37,321**
E100A	E100	A	Moturoa / New Plymouth	13,968	-	-	54,535	-	**68,503**
E100A	E100	A	Stratford	23,280	-	-	104,545	-	**127,825**
E100B	E100	B	Hawera	31,428	-	-	269,825	-	**301,253**
E100C	E100	C	Waverley	-	-	-	-	-	**-**
E100D	E100	D	Opunake	3,492	-	-	30,175	-	**33,667**
E100E	E100	E	Brunswick	34,920	-	-	200,447	-	**235,367**
E100E	E100	E	Wanganui	44,382	-	-	200,862	-	**245,245**
E100F	E100	F	Marton	20,952	-	-	159,984	-	**180,936**
E100G	E100	G	Mataroa	14,560	-	-	164,718	-	**179,277**
E100G	E100	G	Ohakune	-	-	-	-	-	**-**
E100H	E100	H	Masterton	79,765	-	-	617,673	-	**697,438**
E100H	E100	H	Greytown	17,760	-	-	182,641	-	**200,401**
E100I	E100	I	Bunnythorpe	224,765	2,942	-	1,144,946	-	**1,372,652**
E100I	E100	I	Linton	133,991	-	-	639,024	-	**773,015**
E100J	E100	J	Mangamaire	6,984	-	-	43,091	-	**50,075**
E300A	E300	A	Carrington	845,322	29,419	-	1,201,145	-	**2,075,886**
E300A	E300	A	Huirangi	318,740	5,884	-	662,203	-	**986,827**
E300A	E300	A	Moturoa / New Plymouth	254,357	20,593	-	305,053	-	**580,003**
E300A	E300	A	Stratford	367,456	2,942	-	510,432	-	**880,831**
E300B	E300	B	Hawera	331,890	2,942	-	849,663	-	**1,184,495**
E300C	E300	C	Waverley	35,762	-	-	248,703	-	**284,465**
E300D	E300	D	Opunake	66,600	5,884	-	240,761	-	**313,245**
E300E	E300	E	Brunswick	257,520	5,884	-	344,014	-	**607,418**
E300E	E300	E	Wanganui	482,850	17,651	-	569,118	-	**1,069,619**
E300F	E300	F	Marton	231,990	8,826	-	523,980	-	**764,796**
E300G	E300	G	Mataroa	67,494	-	-	237,910	-	**305,404**
E300G	E300	G	Ohakune	-	-	-	-	-	**-**
E300H	E300	H	Masterton	294,816	2,942	-	949,583	-	**1,247,341**
E300H	E300	H	Greytown	14,430	-	-	53,551	-	**67,981**
E300I	E300	I	Bunnythorpe	1,120,919	41,187	-	2,489,487	-	**3,651,592**
E300I	E300	I	Linton	766,422	17,651	-	1,624,512	-	**2,408,585**
E300J	E300	J	Mangamaire	27,750	2,942	-	72,568	-	**103,260**
SPECIAL	SPECIAL		Asset Based	-	5,884	-	48,925	825,154	**879,963**
SPECIAL	SPECIAL		By Pass	-	2,942	-	-	576,053	**578,994**
SPECIAL	SPECIAL		BALANCE	-	-	-	-	281,905	**281,905**
SPECIAL	SPECIAL		SWIFT	-	-	-	-	103,855	**103,855**
SPECIAL	SPECIAL		Hau Nui Generation	-	-	-	-	100,998	**100,998**
SPECIAL	SPECIAL		Tararua Generation	-	-	-	-	235,501	**235,501**
SPECIAL	SPECIAL		Other Generation	-	-	-	-	-	**-**
Western Regio	**Western Region Total**			**6,281,229**	**4,614,825**	**82,392,380**	**42,164,103**	**2,123,466**	**137,576,003**

Distribution Prices FY16 (Price Year 1 April 2015 to 31 March 2016)

Eastern Network

Tariff Group	Network Group	Tariff Description	Fixed				Variable												Individually Priced (Not published in Pricing Policy)		
			Network Asset Charge				Volume Charge									Demand Charge					
			ICP $/Month	ICP cents/day	Installed Capacity $/kVA/Month	CT/VT Charge ($/day)	Uncontrolled c/kWh	All Inclusive c/kWh	Controlled c/kWh	Night Only c/kWh	Summer Day c/kWh	Summer Night c/kWh	Winter Day c/kWh	Winter Night c/kWh	Winter AM Peak c/kWh	Winter PM Peak c/kWh	$/kW /Month	$/kVA /Month	$/kVAr /Month	ABP ($/AMD, value)	Indirect Fixed ($/ICP)	Indirect Variable ($/OPD)
							24UC	AICO	CTRL	NITE	-	-	-	-	-	-						
Residential+Small Commercial																						
V05C	Valley	Low Usage - Controlled		15.0000			7.6800	6.7300	5.3100	5.3600									7.0000			
V05U	Valley	Low Usage - Uncontrolled		15.0000			7.6800			5.3600									7.0000			
V06C	Valley	Residential - Standard Con		87.2800			5.4800	4.5300	3.1100	2.0700									7.0000			
V06U	Valley	Residential - Standard Unc		87.2800			5.4800			2.0700									7.0000			
T05C	Tauranga	Low Usage - Controlled		15.0000			6.9400	6.2800	5.0200	4.5100									7.0000			
T05U	Tauranga	Low Usage - Uncontrolled		15.0000			6.9400			4.5100									7.0000			
T06C	Tauranga	Standard Residential & Cor		68.6400			5.0900	4.4200	3.1700	2.0700									7.0000			
T06U	Tauranga	Standard Residential & Cor		68.6400			5.0900			2.0700									7.0000			
Unmetered Supply																						
V01	Valley	Unmetered/Streetlighting					7.4400												7.0000			
V02	Valley	Unmetered/Streetlighting		10.4200															7.0000			
V03	Valley	Unmetered/Streetlighting																	7.0000			
T01	Tauranga	Unmetered/Streetlighting					7.0400												7.0000			
T02	Tauranga	Unmetered/Streetlighting		10.5000															7.0000			
T03	Tauranga	Unmetered/Streetlighting																	7.0000			
Medium/Large Commercial																						
V24	Valley	Commercial three phase 10		1,106.0000			2.9700	2.9700											7.0000			
V28	Valley	> 200 Amp up to 299 kVA		5,464.0000			2.9200	2.9200	2.9500										7.0000			
V40	Valley	Individual ICP prices																	7.0000	112.59	2,171.05	8.32
V60	Valley	Individual ICP prices																	7.0000	48	11,642.00	10.16
V601	Kinleith																		7.0000	0.30	8,839.92	
T22	Tauranga	Capacity 100 – 199kVA		955.0000			4.6300		2.1400	2.2300									7.0000			
T24	Tauranga	Capacity 200 -299kVA		3,106.0000			4.2800		1.9700										7.0000			
T41	Tauranga	capacity 200 kVA unitised		1,357.0000							2.3700	1.0100	4.1600	1.3400	8.8000	15.1600			7.0000			
T43	Tauranga	capacity 300 kVA - 1,500 k			1.8500						2.3700	1.0100	4.1600	1.3400	8.8000	15.1600			7.0000			
T50	Tauranga	Individual ICP prices				5.7300													7.0000	89.81	2,171.05	8.32
T60	Tauranga	Individual ICP prices																	7.0000	68	11,642.00	10.16

Eastern Network

Distribution Prices FY17 (Prices 1 April 2016 to 31 March 2017)

Tariff Group	Network Group	Tariff Description	Fixed: Network Asset Charge: ICP $/Month	ICP cents/day	Transformer $/day	Installed Capacity $/kVA/Month	Transformer charge ($/day)	Variable: Volume Charge: Uncontrolled c/kWh	All Inclusive c/kWh	Controlled c/kWh	Night Only c/kWh	Summer Day c/kWh	Summer Night c/kWh	Winter Day c/kWh	Winter Night c/kWh	Winter AM Peak c/kWh	Winter PM Peak c/kWh	Demand Charge: $/kW /Month	$/kVA /Month	$/kVAr /Month	Individually Priced: ABP ($/AMD, value)	Indirect Fixed ($/ICP)	Indirect Variable ($/OPD)	Interconnection charge ($/OPD)
								24UC	AICO	CTRL	NITE	TS/1	TS/2	TW/1/3/5	TW/6	TW/2	TW/4							
Residential+Small Commercial																								
V05C	Valley	Low Usage - Controlled		15.0000				7.6400	6.6900	5.2500	5.3500													
V05U	Valley	Low Usage - Uncontrolled		15.0000				7.6400			5.3500													
V06C	Valley	Residential - Standard Controlled		86.6100				5.5400	4.5800	3.1400	2.0900													
V06U	Valley	Residential - Standard Uncontrolle		86.6100				5.5400			2.0900													
T05C	Tauranga	Low Usage - Controlled		15.0000				6.9900	6.3100	5.0400	4.5600													
T05U	Tauranga	Low Usage - Uncontrolled		15.0000				6.9900			4.5600													
T06C	Tauranga	Standard Residential & Commerci		69.3300				5.1400	4.4600	3.2000	2.0900													
T06U	Tauranga	Standard Residential & Commerci		69.3300				5.1400			2.0900													
Unmetered Supply																								
V01	Valley	Unmetered/Streetlighting						7.5100																
V02	Valley	Unmetered/Streetlighting		10.5200																				
V03	Valley	Unmetered/Streetlighting																						
T01	Tauranga	Unmetered/Streetlighting						7.1100																
T02	Tauranga	Unmetered/Streetlighting		10.6100																				
T03	Tauranga	Unmetered/Streetlighting																						
Medium/Large Commercial																								
V24	Valley	Commercial three phase 100A par		992.0000				3.3200	3.3200											7.0000				
V28	Valley	> 200 Amp up to 299 kVA merged		4,519.0000				3.3000	3.3000	2.9800										7.0000				
V40	Valley	Individual ICP prices																		7.0000	113.0696	2,181.9100	8.3595	
V60	Valley	Individual ICP prices																		7.0000	50.6332	11,525.5800	10.0584	
V601	Kinleith																			7.0000	0.2981	8,839.92		
T22	Tauranga	Capacity 100 – 199kVA		965.0000				4.6800		2.1600	2.2500									7.0000				
T24	Tauranga	Capacity 200 -299kVA		3,137.0000				4.3200		1.9900										7.0000				
T41	Tauranga	capacity 200 kVA unitised		1,371.0000								2.3900	1.0200	4.2000	1.3500	8.8900	15.3100			7.0000				
T43	Tauranga	capacity 300 kVA - 1,500 kVA un				1.9700						2.3900	1.0200	4.2000	1.3500	8.8900	15.3100			7.0000				
T50	Tauranga	Individual ICP prices					5.7300													7.0000	90.0018	2,181.9100	8.3595	
T60	Tauranga	Individual ICP prices																		7.0000	67.7883	11,525.5800	10.0584	

Eastern Network

Quantities FY15 (1 April 2014 to 31 March 2015)

Tariff Group	Network Group	Tariff Description	ICP No.'s (Average)	ICP Days	ICP Months	kVA Installed	CT/VTs	kWh Uncontrolled	kWh All Inclusive	kWh Controlled	kWh Nite Only	kWh Summer Day	kWh Summer Night	kWh Winter Day	kWh Winter Night	kWh Winter AM Peak	kWh Winter PM Peak	kW Demand pa	kVA Demand pa	kVAr Demand pa	Individually Priced		
																					Asset Value / AMD	AMD	OPD
								24UC	AICO	CTRL	NITE	TS/1	TS/2	TW/1/3/5	TW/6	TW/2	TW/4						
Residential+Small Commercial																							
V05C	Valley	Low Usage - Controlled	23,708	8,437,674		-	-	67,983,712	8,182,427	27,707,528	571,478	-	-	-	-	-	-	-	-	-	-	-	-
V05U	Valley	Low Usage - Uncontrolled	8,122	2,798,008		-	-	27,400,967	-	-	187,884	-	-	-	-	-	-	-	-	-	-	-	-
V06C	Valley	Residential - Standard Contro	25,358	9,451,313		-	-	165,678,541	62,289,465	44,527,423	1,663,908	-	-	-	-	-	-	-	-	-	-	-	-
V06U	Valley	Residential - Standard Uncon	10,910	4,208,617		-	-	133,007,381	-	-	303,184	-	-	-	-	-	-	-	-	-	-	-	-
			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T05C	Tauranga	Low Usage - Controlled	11,644	3,839,638		-	-	27,081,129	12,014,326	12,954,247	1,563,871	-	-	-	-	-	-	-	-	-	-	-	-
T05U	Tauranga	Low Usage - Uncontrolled	3,997	1,384,199		-	-	13,402,159	-	-	1,541,972	-	-	-	-	-	-	-	-	-	-	-	-
T06C	Tauranga	Standard Residential & Comn	44,444	##########		-	-	204,595,044	64,647,722	86,158,191	5,062,603	-	-	-	-	-	-	-	-	-	-	-	-
T06U	Tauranga	Standard Residential & Comn	16,270	6,225,304		-	-	156,488,741	-	-	4,588,074	-	-	-	-	-	-	-	-	-	-	-	-
			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unmetered Supply			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V01	Valley	Unmetered/Streetlighting	160	-		-	-	707,129	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V02	Valley	Unmetered/Streetlighting	5	4,242,290		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V03	Valley	Unmetered/Streetlighting	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T01	Tauranga	Unmetered/Streetlighting	192	-		-	-	2,550,821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T02	Tauranga	Unmetered/Streetlighting	5	4,542,446		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T03	Tauranga	Unmetered/Streetlighting	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Medium/Large Commercial			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V24	Valley	Commercial three phase 100	412	151,501		-	-	581,613	56,453,711	-	-	-	-	-	-	-	-	-	-	-	-	-	-
V28	Valley	> 200 Amp up to 299 kVA m	92	11,580		-	-	6,653,260	631,689	23,498	-	-	-	-	-	-	-	-	-	1,116	-	-	-
V40	Valley	Individual ICP prices	70	-		-	-	48,254,496	-	-	-	-	-	-	-	-	-	-	-	17,244	16,861	16,861	6,780
V60	Valley	Individual ICP prices	21	-		-	-	302,584,321	-	-	-	-	-	-	-	-	-	-	-	42,567	60,403	60,403	26,356
V601	Kinleith		1	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8,876,811	1	35,794
			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T22	Tauranga	Capacity 100 – 199kVA	385	139,034		-	-	39,392,179	-	317,117	399,856	-	-	-	-	-	-	-	-	-	-	-	-
T24	Tauranga	Capacity 200 -299kVA	48	16,859		-	-	5,437,311	-	-	-	-	-	-	-	-	-	-	-	865	-	-	-
T41	Tauranga	capacity 200 kVA unitised	91	32,683		-	-	-	-	-	-	13,923,827	4,343,512	4,499,370	2,313,633	1,578,195	1,226,638	-	-	14,332	-	-	-
T43	Tauranga	capacity 300 kVA - 1,500 kV	10	-		59,400	-	-	-	-	-	1,559,948	414,579	694,360	292,924	308,521	146,076	-	-	4,889	-	-	-
T50	Tauranga	Individual ICP prices	186	-		-	1	161,080,533	-	-	-	-	-	-	-	-	-	-	-	42,335	50,362	50,362	22,309
T60	Tauranga	Individual ICP prices	21	-		-	-	108,679,156	-	-	-	-	-	-	-	-	-	-	-	26,074	29,217	29,217	14,280
			-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Eastern Region Total			146,078			59,400		1,471,558,493	204,219,339	171,687,943	15,882,830	15,483,775	4,758,091	5,193,730	2,606,557	1,886,716	1,372,714	-	-		9,033,654	156,844	105,519

Eastern Network

Tariff Group	Network Group	Tariff Description	Distribution Revenue (FY17 Prices)					
			Fixed (Monthly)	Fixed (Daily)	Variable	Demand	Non-standard	**Total**
Residential+Small Commercial								
V05C	Valley	Low Usage - Controlled	-	1,265,651	7,226,579	-	-	**8,492,230**
V05U	Valley	Low Usage - Uncontrolled	-	419,701	2,103,486	-	-	**2,523,187**
V06C	Valley	Residential - Standard Contro	-	8,185,782	13,464,385	-	-	**21,650,168**
V06U	Valley	Residential - Standard Uncon	-	3,645,083	7,374,945	-	-	**11,020,029**
T05C	Tauranga	Low Usage - Controlled	-	575,946	3,375,281	-	-	**3,951,227**
T05U	Tauranga	Low Usage - Uncontrolled	-	207,630	1,007,125	-	-	**1,214,755**
T06C	Tauranga	Standard Residential & Comr	-	11,424,554	16,262,344	-	-	**27,686,898**
T06U	Tauranga	Standard Residential & Comr	-	4,316,003	8,139,412	-	-	**12,455,415**
Unmetered Supply								
V01	Valley	Unmetered/Streetlighting	-	-	53,105	-	-	**53,105**
V02	Valley	Unmetered/Streetlighting	-	446,289	-	-	-	**446,289**
V03	Valley	Unmetered/Streetlighting	-	-	-	-	-	**-**
T01	Tauranga	Unmetered/Streetlighting	-	-	181,363	-	-	**181,363**
T02	Tauranga	Unmetered/Streetlighting	-	481,954	-	-	-	**481,954**
T03	Tauranga	Unmetered/Streetlighting	-	-	-	-	-	**-**
Medium/Large Commercial								
V24	Valley	Commercial three phase 100/	-	1,502,890	1,893,573	-	-	**3,396,463**
V28	Valley	> 200 Amp up to 299 kVA me	-	523,300	241,102	7,814	-	**772,216**
V40	Valley	Individual ICP prices	-	-	-	120,710	2,115,877	**2,236,587**
V60	Valley	Individual ICP prices	-	-	-	297,971	3,565,535	**3,863,507**
V601	Kinleith		-	-	-	-	2,655,254	**2,655,254**
T22	Tauranga	Capacity 100 – 199kVA	-	1,341,678	1,859,400	-	-	**3,201,079**
T24	Tauranga	Capacity 200 -299kVA	-	528,867	234,892	6,056	-	**769,814**
T41	Tauranga	capacity 200 kVA unitised	-	448,084	925,391	100,326	-	**1,473,800**
T43	Tauranga	capacity 300 kVA - 1,500 kV/	117,018	-	124,421	34,223	-	**275,662**
T50	Tauranga	Individual ICP prices	-	2,091	-	296,348	5,124,997	**5,423,437**
T60	Tauranga	Individual ICP prices	-	-	-	182,517	2,366,241	**2,548,757**
Eastern Region Total			**117,018**	**35,315,503**	**64,466,805**	**1,045,964**	**15,827,905**	**116,773,195**

9 Attachment B – Portion of Pass-through Prices and Distribution Prices

In the information below, pass-through prices are referred to as the "Transmission component."

Western Network

Residential & small commercial (E1UC & E1C)

	Delivery charges effective: 1 April 2017						Previous delivery charges					
	Volume charges (c/kWh)						Volume charges (c/kWh)					
Pricing zone	Day	Night	Total demand charge[2] $/kW/month	Transmission component[4] demand charge $/kW/month	ICP fixed charge (c/day)	Estimated number of consumers	Day	Night	Total demand charge[2] $/kW/month	Transmission component[4] demand charge $/kW/month	ICP fixed charge (c/day)	
A[1]	5.96	1.20	17.82	11.43	Controlled 0.00	117,283	5.94	1.20	16.99	10.62	Controlled 0.00	
					Uncontrolled 15.00						Uncontrolled 15.00	
B[2]	8.11	1.61	22.38	13.20	Controlled 0.00	52,124	8.08	1.60	21.41	12.26	Controlled 0.00	
					Uncontrolled 15.00						Uncontrolled 15.00	

Commercial (E100) – Greater than 100kVA

		Delivery charges effective: 1 April 2017					Previous delivery charges				
Consumer's point of connection	Pricing zone	Network assets charge $/ICP/month	Distribution demand charge[3] (c/kW/day)	Transmission[4] demand charge (c/kW/day)	Power factor charge[7] ($/kVAr/month)	Estimated number of consumers	Network assets charge $/ICP/month	Distribution demand charge[3] (c/kW/day)	Transmission[4] demand charge (c/kW/day)	Power factor charge[7] ($/kVAr/month)	
Carrington, New Plymouth, Stratford, & Huirangi	A	291	32.27	45.54	1.00	54	291	32.34	42.31	0.00	
Hawera	B		65.27	62.92	1.00	9		65.42	58.46	0.00	
Waverley	C		57.45	47.11	1.00	0		57.58	43.77	0.00	
Opunake	D		58.91	85.33	1.00	1		59.05	79.28	0.00	
Brunswick & Whanganui	E		37.81	38.29	1.00	19		37.90	35.58	0.00	
Marton	F		45.51	32.42	1.00	5		45.61	30.12	0.00	
Mataroa & Ohakune	G		62.02	52.19	1.00	4		62.16	48.49	0.00	
Masterton & Greytown	H		55.80	50.74	1.00	28		55.93	47.14	0.00	
Bunnythorpe & Linton	I		34.15	37.66	1.00	98		34.23	34.99	0.00	
Mangamaire	J		40.76	67.51	1.00	2		40.85	62.72	0.00	

Large commercial (E300 & E300R) – Greater than 300kVA

		Delivery charges effective: 1 April 2017					Previous delivery charges				
Consumer's point of connection	Pricing zone	Network assets charge $/kVA/month	Distribution demand charge[3] (c/kW/day)	Transmission[4] demand charge (c/kW/day)	Power factor charge[7] ($/kVAr/month)	Estimated number of consumers	Network assets charge $/kVA/month	Distribution demand charge[3] (c/kW/day)	Transmission[4] demand charge (c/kW/day)	Power factor charge[7] ($/kVAr/month)	
Carrington, New Plymouth, Stratford, & Huirangi	A	1.85	14.09	45.54	1.00	78	1.85	14.12	42.31	0.00	
Hawera	B		26.45	62.92	1.00	9		26.51	58.46	0.00	
Waverley	C		52.70	47.11	1.00	1		52.82	43.77	0.00	
Opunake	D		29.75	85.33	1.00	2		29.82	79.28	0.00	
Brunswick & Whanganui	E		14.99	38.29	1.00	32		15.02	35.58	0.00	
Marton	F		23.89	32.42	1.00	11		23.95	30.12	0.00	
Mataroa & Ohakune	G		40.17	52.19	1.00	2		40.26	48.49	0.00	
Masterton & Greytown	H		34.36	50.74	1.00	20		34.44	47.14	0.00	
Bunnythorpe & Linton	I		23.57	37.66	1.00	81		23.62	34.99	0.00	
Mangamaire	J		24.98	67.51	1.00	1		25.04	62.72	0.00	

Large commercial and industrial – greater than 1,500 kVA

	Distribution charges effective 1 April 2017			Transmission charges[5] effective 1 April 2017			Previous distribution charges			Previous transmission charges[5]	
Consumer group	Network asset and maintenance charge – $/RMD (kW)	Network indirect demand charge – $/OPD (kW)	Network indirect fixed charge – $/annum	Anytime demand – $/kW	On-peak demand – $/kW	Estimated number of consumers	Network asset and maintenance charge – $/RMD (kW)	Network indirect demand charge – $/OPD (kW)	Network indirect fixed charge – $/annum	Anytime demand – $/kW	On-peak demand – $/kW
SPECIAL[6]: Greater than 1,500 kVA[8]	49.76	10.26	11,138	22.27	127.91	18	48.15	10.21	11,700	22.00	118.31
SPECIAL[6]: Waingawa group	-	-	116,685	24.61	123.98	5	-	-	115,211	21.84	114.64

Tauranga Network

Points of Supply: Kaitimako, Mt Maunganui, Tauranga, Te Matai

Residential

	Delivery charges[1] effective 1 April 2017						Transmission component[2]				
Consumer Group	Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)	Estimated number of consumers	Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)
T05U/T05C: Low Fixed Charge Option	15.00	11.37	10.04	7.31	4.58	22,283	0.00	4.36	3.72	2.25	0.00
T06U/T06C: Standard Option	69.53	8.89	7.56	4.83	2.10	49,436	0.00	3.74	3.09	1.62	0.00
	Previous delivery charges						Previous transmission charges				
T05U/T05C: Low Fixed Charge Option	15.00	11.34	10.02	7.29	4.56	19,568	0.00	4.35	3.71	2.25	0.00
T06U/T06C: Standard Option	69.33	8.87	7.55	4.82	2.09	50,066	0.00	3.73	3.09	1.62	0.00

	Delivery charges[1] effective 1 April 2017						Transmission component[2]				
Time of Use (TOU) Trial[3]	Fixed rate (c/day)	Peak (c/kWh)	Off Peak (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)	Estimated number of consumers	Fixed rate (c/day)	Peak (c/kWh)	Off Peak (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)
T05S: Low Fixed Charge Option	15.00	20.72	6.95	7.31	4.58	0.00	0.00	13.77	0.00	2.25	0.00
T06S: Standard Option	69.53	18.24	4.47	4.83	2.10	0.00	0.00	13.77	0.00	1.62	0.00

Commercial

	Delivery charges[1] effective 1 April 2017						Transmission component[2]				
Consumer Group	Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)	Estimated number of consumers	Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)
T01: Unmetered supply other than Streetlighting		11.60				220		4.47			
T02: Unmetered Streetlighting (per light)	17.30					8	6.66				
T06U/T06C: 1, 2 & 3 phase up to and including 60 amp	69.53	8.89	7.56	4.83	2.10	8,724	0.00	3.74	3.09	1.62	0.00
T22: Three phase 61 – 250 amp	968	7.23		3.34	2.26	511	0.00	2.54		1.17	0.00
T24: 200 – 299 kVA	3,146	6.68		3.08		53	0.00	2.35		1.08	
	Previous delivery charges						Previous transmission charges				
T01: Unmetered supply other than Streetlighting		11.57				222		4.46			
T02: Unmetered Streetlighting (per light)	17.26					5	6.65				
T06U/T06C: 1, 2 & 3 phases up to and including 60 amp	69.33	8.87	7.55	4.82	2.09	8,835	0.00	3.73	3.09	1.62	0.00
T22: Three phase 61 – 250 amp	965	7.22		3.33	2.25	488	0.00	2.54		1.17	0.00
T24: 200 – 299 kVA	3,137	6.67		3.07		48	0.00	2.35		1.08	

Commercial – T41 / T43 connections

	Delivery charges[1] effective 1 April 2017								Transmission component[2]						
Consumer Group	Fixed rate	Summer day 0700-2300 (c/kWh)	Summer night 2300-0700 (c/kWh)	Winter day 0700-2300 excl peak times (c/kWh)	Winter morning peak 0800-1100 (c/kWh)	Winter evening peak 1700-2000 (c/kWh)	Winter night 2300-0700 (c/kWh)	Estimated number of consumers	Fixed rate	Summer day 0700-2300 (c/kWh)	Summer night 2300-0700 (c/kWh)	Winter day 0700-2300 excl peak times (c/kWh)	Winter morning peak 0800-1100 (c/kWh)	Winter evening peak 1700-2000 (c/kWh)	Winter night 2300-0700 (c/kWh)
T41: 200 – 299 kVA	$13.75/day	4.33	1.16	5.50	11.58	20.13	1.12	92	0.00	1.59	0.00	2.02	4.25	7.39	0.00
T43: 300 – 1,499 kVA	$2.18/kVA/month	4.33	1.16	5.50	11.58	20.13	1.12	7	0.00	1.59	0.00	2.02	4.25	7.39	0.00
	Previous delivery charges								Previous transmission charges						
T41: 200 – 299 kVA	$13.71/day	3.69	1.02	6.49	13.71	23.63	1.35	194	0.00	1.30	0.00	2.29	4.82	8.32	0.00
T43: 300 – 1,499 kVA	$1.97/kVA/month	3.69	1.02	6.49	13.71	23.63	1.35	10	0.00	1.30	0.00	2.29	4.82	8.32	0.00

Large commercial / industrial

	Distribution charges effective 1 April 2017			Transmission charges effective 1 April 2017			Previous distribution charges			Previous transmission charges	
Consumer Group	Network asset and maintenance charge – $/AMD (kW)	Network indirect network charges – $/OPD (kW)	Network indirect fixed charge – $/annum	Anytime demand – $/AMD (kW)	On-peak demand – $/OPD (kW)	Estimated number of consumers	Network asset and maintenance charge – $/AMD (kW)	Network indirect network charges – $/OPD (kW)	Network indirect fixed charge – $/annum	Anytime demand – $/AMD (kW)	On-peak demand – $/OPD (kW)
T50[4]: 300 – 1,499 kVA capacity	90.31	8.40	2,193	20.12	129.21	191	90.00	8.36	2,182	21.13	120.04
T60[4]: Greater than or equal to 1,500 kVA capacity	69.34	10.26	11,759	20.88	128.18	29	67.79	10.06	11,526	21.75	118.58

Valley Network

Points of Supply: Hinuera, Kinleith, Kopu, Piako, Waihou, Waikino

Residential

Consumer Group	Delivery charges[1] effective 1 April 2017					Estimated number of consumers	Transmission component[2]				
	Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)		Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)
V05U/V05C: Low Fixed Charge Option	15.00	12.11	10.80	8.53	5.37	34,153	0.00	4.45	4.10	3.26	0.00
V06U/V06C: Standard Option	86.86	8.84	7.53	5.26	2.10	24,898	0.00	3.28	2.94	2.11	0.00
	Previous delivery charges						Previous transmission component				
V05U/V05C: Low Fixed Charge Option	15.00	12.08	10.78	8.51	5.35	34,190	0.00	4.44	4.09	3.26	0.00
V06U/V06C: Standard Option	86.61	8.82	7.52	5.25	2.09	24,333	0.00	3.28	2.94	2.11	0.00

Time of Use (TOU) TriaP	Delivery charges[1] effective 1 April 2017					Estimated number of consumers	Transmission component[2]				
	Fixed rate (c/day)	Peak (c/kWh)	Off peak (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)		Fixed rate (c/day)	Peak (c/kWh)	Off peak (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)
V05S: Low Fixed Charge Option	15.00	18.74	7.86	8.53	5.37	0.00	0.00	10.88	0.00	3.26	0.00
V06S: Standard Option	86.86	15.47	4.59	5.26	2.10	0.00	0.00	10.88	0.00	2.11	0.00

Commercial

Consumer Group	Delivery charges[1] effective 1 April 2017					Estimated number of consumers	Transmission component[2]				
	Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)		Fixed rate (c/day)	24 hour supply (c/kWh)	Single controllable supply (c/kWh)	Controlled (c/kWh)	Night only supply (c/kWh)
V01: Unmetered Supply – other than streetlighting		12.00				186		4.47			
V02: Unmetered Streetlighting (per light)	16.81					5	6.26				
V06: 1, 2 & 3 phase up to and including 60 amp	86.86	8.84	7.53	5.26	2.10	10,671	0.00	3.28	2.94	2.11	0.00
V24: Three phase 61 – 250 amp	980	6.21	6.21			444	0.00	2.63	2.63		
V28: Greater than 250 amp up to and including 299 kVA	4,032	6.03	6.03	4.75		38	0.00	2.47	2.47	1.76	
	Previous delivery charges						Previous transmission component				
V01: Unmetered Supply – other than streetlighting		11.97				191		4.46			
V02: Unmetered Streetlighting (per light)	16.77					5	6.25				
V06: 1, 2 & 3 phase up to and including 60 amp	86.61	8.82	7.52	5.25	2.09	10,429	0.00	3.28	2.94	2.11	0.00
V24: Three phase 61 – 250 amp	992	5.95	5.95			427	0.00	2.63	2.63		
V28: Greater than 250 amp up to and including 299 kVA	4,519	5.77	5.77	4.74		34	0.00	2.47	2.47	1.76	

Large commercial / industrial

Consumer Group	Distribution charges effective 1 April 2017			Transmission charges effective 1 April 2017		Estimated number of consumers	Previous distribution charges			Previous transmission charges	
	Network asset and maintenance charge – $/AMD (kW)	Network indirect network charges – $/DPD (kW)	Network indirect fixed charge – $/annum	Anytime demand – $/AMD (kW)	On-peak demand – $/DPD (kW)		Network asset and maintenance charge – $/AMD (kW)	Network indirect network charges – $/DPD (kW)	Network indirect fixed charge – $/annum	Anytime demand – $/AMD (kW)	On-peak demand – $/DPD (kW)
V40[4]: 300 – 1,499 kVA capacity	113.01	8.40	2,193	38.30	129.86	78	113.07	8.36	2,182	39.35	119.95
V60[4]: Greater than or equal to 1,500 kVA capacity	50.57	10.26	11,759	38.30	127.06	29	50.63	10.06	11,526	35.91	117.52

10 Attachment C – Pass-through Prices and Quantities

Western Network					Pass Through Prices 2017 (Period 1 April 2016 to 31 March 2017)								
					Variable			Individually Priced					
					Demand Charge								
Tariff Group	GXP Group	GXP			$/kW /Month	$/kW /Month	$/kVAr /Month	ABP ($/AMD, value)	Indirect Fixed ($/ICP)	Indirect Variable ($/OPD)	Connection charge ($/AMD)	Interconnection charge ($/OPD)
Residential+Small Commercial												
E1C	A	Brunswick	BRK	14	10.6200							
E1UC	A	Brunswick	BRK	15	10.6200							
E1C	A	Bunnythorp	BPE	16	10.6200							
E1UC	A	Bunnythorp	BPE	17	10.6200							
E1C	A	Carrington	CST	18	10.6200							
E1UC	A	Carrington	CST	19	10.6200							
E1C	A	Huirangi	HUI	20	10.6200							
E1UC	A	Huirangi	HUI	21	10.6200							
E1C	A	Linton	LTN	22	10.6200							
E1UC	A	Linton	LTN	23	10.6200							
E1C	A	Moturoa /	NPL	24	10.6200							
E1UC	A	Moturoa /	NPL	25	10.6200							
E1C	A	Stratford	SFD	26	10.6200							
E1UC	A	Stratford	SFD	27	10.6200							
E1C	A	Wanganui	WGN	28	10.6200							
E1UC	A	Wanganui	WGN	29	10.6200							
E1C	B	Greytown	GYT	31	12.2600							
E1UC	B	Greytown	GYT	32	12.2600							
E1C	B	Hawera	HWA	33	12.2600							
E1UC	B	Hawera	HWA	34	12.2600							
E1C	B	Mangamai	MGM	35	12.2600							
E1UC	B	Mangamai	MGM	36	12.2600							
E1C	B	Marton	MTN	37	12.2600							
E1UC	B	Marton	MTN	38	12.2600							
E1C	B	Masterton	MST	39	12.2600							
E1UC	B	Masterton	MST	40	12.2600							
E1C	B	Mataroa	MTR	41	12.2600							
E1UC	B	Mataroa	MTR	42	12.2600							
E1C	B	Ohakune	OKN	43	12.2600							
E1UC	B	Ohakune	OKN	44	12.2600							
E1C	B	Opunake	OPK	45	12.2600							
E1UC	B	Opunake	OPK	46	12.2600							
E1C	B	Waverley	WVY	47	12.2600							
E1UC	B	Waverley	WVY	48	12.2600							
Medium/Large Commercial												
E100	A	Carrington	CST	51		0.4231						
E100	A	Huirangi	HUI	52		0.4231						
E100	A	Moturoa /	NPL	53		0.4231						
E100	A	Stratford	SFD	54		0.4231						
E100	B	Hawera	HWA	55		0.5846						
E100	C	Waverley	WVY	56		0.4377						
E100	D	Opunake	OPK	57		0.7928						
E100	E	Brunswick	BRK	58		0.3558						
E100	E	Wanganui	WGN	59		0.3558						
E100	F	Marton	MTN	60		0.3012						
E100	G	Mataroa	MTR	61		0.4849						
E100	G	Ohakune	OKN	62		0.4849						
E100	H	Masterton	MST	63		0.4714						
E100	H	Greytown	GYT	64		0.4714						
E100	I	Bunnythorp	BPE	65		0.3499						
E100	I	Linton	LTN	66		0.3499						
E100	J	Mangamai	MGM	67		0.6272						
E300	A	Carrington	CST	69		0.4231						
E300	A	Huirangi	HUI	70		0.4231						
E300	A	Moturoa /	NPL	71		0.4231						
E300	A	Stratford	SFD	72		0.4231						
E300	B	Hawera	HWA	73		0.5846						
E300	C	Waverley	WVY	74		0.4377						
E300	D	Opunake	OPK	75		0.7928						
E300	E	Brunswick	BRK	76		0.3558						
E300	E	Wanganui	WGN	77		0.3558						
E300	F	Marton	MTN	78		0.3012						
E300	G	Mataroa	MTR	79		0.4849						
E300	G	Ohakune	OKN	80		0.4849						
E300	H	Masterton	MST	81		0.4714						
E300	H	Greytown	GYT	82		0.4714						
E300	I	Bunnythorp	BPE	83		0.3499						
E300	I	Linton	LTN	84		0.3499						
E300	J	Mangamai	MGM	85		0.6272						
SPECIAL		Asset Based									23.5181	118.0825
SPECIAL		By Pass									21.8370	114.6400
SPECIAL		BALANCE							618.780			
SPECIAL		SWIFT							7,330.0000			
SPECIAL		Hau Nui Generation							2,499.7800			
SPECIAL		Tararua Generation										
SPECIAL		Other Generation										

Western Network					Actual Quantities (1 April 2015 to 31 March 2016)						Actual Pass-Through Revenue - Western		
Tariff Group	GXP Group	GXP			ICP No.'s (Average)	icp Days / ICP Months	ICP Months	kW Demand (AMD for E100/E300)	OPD (kW)	$/kVAr /Month	Demand	Non-standard	**Total**
Residential+Small Commercial													
E1C	A	Brunswick	BRK	14		2,369,604		125,965			1,337,745	-	**1,337,745**
E1UC	A	Brunswick	BRK	15		1,968,933		104,666			1,111,549	-	**1,111,549**
E1C	A	Bunnythor	BPE	16		6,267,622		377,713			4,011,315	-	**4,011,315**
E1UC	A	Bunnythor	BPE	17		5,858,759		353,073			3,749,640	-	**3,749,640**
E1C	A	Carrington	CST	18		3,299,489		169,498			1,800,068	-	**1,800,068**
E1UC	A	Carrington	CST	19		4,229,744		217,286			2,307,577	-	**2,307,577**
E1C	A	Huirangi	HUI	20		1,341,238		94,624			1,004,911	-	**1,004,911**
E1UC	A	Huirangi	HUI	21		1,163,852		82,110			872,006	-	**872,006**
E1C	A	Linton	LTN	22		2,967,633		185,260			1,967,457	-	**1,967,457**
E1UC	A	Linton	LTN	23		3,024,397		188,803			2,005,090	-	**2,005,090**
E1C	A	Moturoa /	NPL	24		1,589,564		76,707			814,629	-	**814,629**
E1UC	A	Moturoa /	NPL	25		1,568,807		75,705			803,992	-	**803,992**
E1C	A	Stratford	SFD	26		1,614,255		142,252			1,510,712	-	**1,510,712**
E1UC	A	Stratford	SFD	27		1,385,169		122,064			1,296,320	-	**1,296,320**
E1C	A	Wanganui	WGN	28		1,899,837		133,508			1,417,852	-	**1,417,852**
E1UC	A	Wanganui	WGN	29		1,650,049		115,954			1,231,434	-	**1,231,434**
											-		**-**
E1C	B	Greytown	GYT	31		1,312,120		78,457			961,881	-	**961,881**
E1UC	B	Greytown	GYT	32		1,105,093		66,078			810,115	-	**810,115**
E1C	B	Hawera	HWA	33		1,295,061		76,754			941,003	-	**941,003**
E1UC	B	Hawera	HWA	34		2,036,251		120,682			1,479,558	-	**1,479,558**
E1C	B	Mangamai	MGM	35		818,594		45,127			553,260	-	**553,260**
E1UC	B	Mangamai	MGM	36		741,239		40,863			500,979	-	**500,979**
E1C	B	Marton	MTN	37		1,424,278		81,356			997,424	-	**997,424**
E1UC	B	Marton	MTN	38		768,396		43,891			538,109	-	**538,109**
E1C	B	Masterton	MST	39		3,882,707		205,635			2,521,084	-	**2,521,084**
E1UC	B	Masterton	MST	40		2,375,141		125,792			1,542,205	-	**1,542,205**
E1C	B	Mataroa	MTR	41		627,557		32,056			393,002	-	**393,002**
E1UC	B	Mataroa	MTR	42		384,877		19,660			241,026	-	**241,026**
E1C	B	Ohakune	OKN	43		227,592		12,244			150,106	-	**150,106**
E1UC	B	Ohakune	OKN	44		204,780		11,016			135,061	-	**135,061**
E1C	B	Opunake	OPK	45		473,049		46,028			564,308	-	**564,308**
E1UC	B	Opunake	OPK	46		635,016		61,788			757,522	-	**757,522**
E1C	B	Waverley	WVY	47		-		-			-	-	**-**
E1UC	B	Waverley	WVY	48		488,239		36,408			446,360	-	**446,360**
Medium/Large Commercial											-	-	**-**
E100	A	Carrington	CST	51				1,650,650	823,330		348,351	-	**348,351**
E100	A	Huirangi	HUI	52				486,180	148,555		62,854	-	**62,854**
E100	A	Moturoa /	NPL	53				160,965	54,385		23,010	-	**23,010**
E100	A	Stratford	SFD	54				477,785	190,530		80,613	-	**80,613**
E100	B	Hawera	HWA	55				423,035	223,015		130,375	-	**130,375**
E100	C	Waverley	WVY	56				-	-		-	-	**-**
E100	D	Opunake	OPK	57				52,925	10,950		8,681	-	**8,681**
E100	E	Brunswick	BRK	58				549,325	260,975		92,855	-	**92,855**
E100	E	Wanganui	WGN	59				387,600	184,170		65,528	-	**65,528**
E100	F	Marton	MTN	60				315,092	150,340		45,282	-	**45,282**
E100	G	Mataroa	MTR	61				254,405	141,255		68,495	-	**68,495**
E100	G	Ohakune	OKN	62				-	-		-	-	**-**
E100	H	Masterton	MST	63				1,205,230	611,740		288,374	-	**288,374**
E100	H	Greytown	GYT	64				210,240	114,245		53,855	-	**53,855**
E100	I	Bunnythor	BPE	65				3,353,120	1,651,597		577,894	-	**577,894**
E100	I	Linton	LTN	66				1,718,315	716,025		250,537	-	**250,537**
E100	J	Mangamai	MGM	67				106,215	35,040		21,977	-	**21,977**
E300	A	Carrington	CST	69				4,780,340	2,119,655		896,826	-	**896,826**
E300	A	Huirangi	HUI	70				7,213,318	3,629,855		1,535,792	-	**1,535,792**
E300	A	Moturoa /	NPL	71				2,075,025	810,300		342,838	-	**342,838**
E300	A	Stratford	SFD	72				3,052,932	1,383,295		585,272	-	**585,272**
E300	B	Hawera	HWA	73				3,137,300	1,306,255		763,637	-	**763,637**
E300	C	Waverley	WVY	74				419,020	169,360		74,129	-	**74,129**
E300	D	Opunake	OPK	75				713,575	396,390		314,258	-	**314,258**
E300	E	Brunswick	BRK	76				2,019,910	1,055,945		375,705	-	**375,705**
E300	E	Wanganui	WGN	77				4,132,000	2,049,072		729,060	-	**729,060**
E300	F	Marton	MTN	78				2,211,571	1,143,435		344,402	-	**344,402**
E300	G	Mataroa	MTR	79				554,070	392,010		190,086	-	**190,086**
E300	G	Ohakune	OKN	80				-	-		-	-	**-**
E300	H	Masterton	MST	81				2,810,500	1,479,345		697,363	-	**697,363**
E300	H	Greytown	GYT	82				157,645	38,800		18,290	-	**18,290**
E300	I	Bunnythor	BPE	83				11,088,286	5,578,035		1,951,754	-	**1,951,754**
E300	I	Linton	LTN	84				4,888,290	2,654,350		928,757	-	**928,757**
E300	J	Mangamai	MGM	85				178,485	64,970		40,749	-	**40,749**
SPECIAL		Asset Based			12							3,674,691	**3,674,691**
SPECIAL		By Pass			5								
SPECIAL		BALANCE			1								
SPECIAL		SWIFT			1								
SPECIAL		Hau Nui Generation			1								
SPECIAL		Tararua Generation			1								
SPECIAL		Other Generation			6								
					-								
					27	**60,998,942**	**-**	**64,452,374**	**29,587,223**	**-**	**52,682,899**	**3,674,691**	**56,357,590**

Eastern Network — Pass Through Prices 2017 (Period 1 April 2016 to 31 March 2017)

				Fixed			Variable										Individually Priced	
				Network Asset Charge			Volume Charge								Demand Charge			
				ICP $/Month	ICP cents/day	CT/VT Charge ($/day)	Uncontrolled c/kWh	All Inclusive c/kWh	Controlled c/kWh	Summer Day c/kWh	Summer Night c/kWh	Winter Day c/kWh	Winter Night c/kWh	Winter AM Peak c/kWh	Winter PM Peak c/kWh	$/kW /Month	$/kVAr /Month	Connection charge ($/AMD)	Interconnection charge ($/OPD)
Tariff Group	Network	Groiff	Description				24UC	AICO	CTRL	TS/1	TS/2	TW/1/3/5	TW/6	TW/2	TW/4				
Residential+Small Commercial																			
V05C	Valley		Low Usage - Controlle	13				4.4400	4.0900	3.2600									
V05U	Valley		Low Usage - Uncontrc	14				4.4400											
V06C	Valley		Residential - Standarc	15				3.2800	2.9400	2.1100									
V06U	Valley		Residential - Standarc	16				3.2800											
T05C	Tauranga		Low Usage - Controlle	18				4.3500	3.7100	2.2500									
T05U	Tauranga		Low Usage - Uncontrc	19				4.3500											
T06C	Tauranga		Standard Residential	20				3.7300	3.0900	1.6200									
T06U	Tauranga		Standard Residential	21				3.7300											
Unmetered Supply																			
V01	Valley		Unmetered/Streetlight	24				4.4600											
V02	Valley		Unmetered/Streetlight	25		6.2500													
V03	Valley		Unmetered/Streetlight	26															
T01	Tauranga		Unmetered/Streetlight	28				4.4600											
T02	Tauranga		Unmetered/Streetlight	29		6.6500													
T03	Tauranga		Unmetered/Streetlight	30															
Medium/Large Commercial																			
V24	Valley		Commercial three phase 100A part of V25 b					2.6300	2.6300										
V28	Valley		> 200 Amp up to 299 kVA merged with V27					2.4700	2.4700	1.7600									
V40	Valley		Individual ICP prices															39.3460	119.9544
V60	Valley		Individual ICP prices															35.9119	117.5228
V601	Kinleith		Individual ICP prices															1,139.181	114.64
T22	Tauranga		Capacity 100 – 199kVA					2.5400		1.1700									
T24	Tauranga		Capacity 200 -299kVA					2.3500		1.0800									
T41	Tauranga		capacity 200 kVA unitised								1.3000	0.00	2.2900	0.00	4.8200	8.3200			
T43	Tauranga		capacity 300 kVA - 1,500 kVA unitised (Clo								1.3000		2.2900		4.8200	8.3200			
T50	Tauranga		Individual ICP prices															21.1329	120.0410
T60	Tauranga		Individual ICP prices															21.7500	118.5808

Eastern Network — Actual Quantities (1 April 2016 to 31 March 2017)

				ICP Days	ICP Months	kVA Installed	CT/VTs	kWh Uncontrolled	kWh All Inclusive	kWh Controlled	kWh Nite Only	kWh Summer Day	kWh Summer Night	kWh Winter Day	kWh Winter Night	kWh Winter AM Peak	kWh Winter PM Peak
Tariff Group	Network	Groiff	Description					24UC	AICO	CTRL	NITE	TS/1	TS/2	TW/1/3/5	TW/6	TW/2	TW/4
Residential+Small Commercial																	
V05C	Valley		Low Usage - Controlle	13				79,990,484	7,637,213	33,200,152	433,380						
V05U	Valley		Low Usage - Uncontrc	14				33,281,896	-	-	152,750						
V06C	Valley		Residential - Standarc	15				146,427,585	43,270,933	39,975,146	1,502,430						
V06U	Valley		Residential - Standarc	16				160,959,656	-	-	747,598						
T05C	Tauranga		Low Usage - Controlle	18				38,363,064	20,263,119	21,284,245	348,599						
T05U	Tauranga		Low Usage - Uncontrc	19				25,168,722	-	-	3,268,915						
T06C	Tauranga		Standard Residential	20				172,735,536	62,925,960	78,392,816	1,033,604						
T06U	Tauranga		Standard Residential	21				174,639,496			7,346,892						
Unmetered Supply																	
V01	Valley		Unmetered/Streetlight	24				649,023	-	-	-						
V02	Valley		Unmetered/Streetlight	25	4,267,871			1,128,289	-	-	-						
V03	Valley		Unmetered/Streetlight	26													
T01	Tauranga		Unmetered/Streetlight	28				2,361,838	-	-	-						
T02	Tauranga		Unmetered/Streetlight	29	4,870,868			1,125,899	-	-	-						
T03	Tauranga		Unmetered/Streetlight	30													
Medium/Large Commercial																	
V24	Valley		Commercial three phase 100A part of V25 but with rebate					18,125,882	39,996,495	-	-						
V28	Valley		> 200 Amp up to 299 kVA merged with V27 & V29					9,235,151	264,338	-	-						
V40	Valley		Individual ICP prices					54,348,735	-	-	-						
V60	Valley		Individual ICP prices					584,862,601	-	-	-						
V601	Kinleith		Individual ICP prices														
T22	Tauranga		Capacity 100 – 199kVA					47,702,988	-	363,084	385,748						
T24	Tauranga		Capacity 200 -299kVA					6,875,759	-	-	-						
T41	Tauranga		capacity 200 kVA unitised								-	14,244,333	4,568,703	4,875,886	2,668,230	1,674,478	1,394,605
T43	Tauranga		capacity 300 kVA - 1,500 kVA unitised (Closed to new connections)								-	1,429,590	389,257	724,533	321,900	322,855	149,543
T50	Tauranga		Individual ICP prices					179,514,241	-	-	-						
T60	Tauranga		Individual ICP prices					134,171,146	-	-	-						
				9,138,739	-	-	-	1,871,667,990	174,358,057	173,215,444	15,219,916	15,673,923	4,957,960	5,600,419	2,990,130	1,997,333	1,534,148

Eastern Network			Actual Pass-through Revenue - Eastern					
			Fixed (Monthly)	Fixed (Daily)	Variable	Demand	Non-standard	**Total**
Tariff Group	Network Group	Tarriff Description						
Residential+Small Commercial								
V05C	Valley	Low Usage - Controlled	-	-	4,946,264	-	-	**4,946,264**
V05U	Valley	Low Usage - Uncontrolled	-	-	1,477,716	-	-	**1,477,716**
V06C	Valley	Residential - Standard Controlled	-	-	6,918,466	-	-	**6,918,466**
V06U	Valley	Residential - Standard Uncontrol	-	-	5,279,477	-	-	**5,279,477**
			-	-	-	-	-	**-**
T05C	Tauranga	Low Usage - Controlled	-	-	2,899,451	-	-	**2,899,451**
T05U	Tauranga	Low Usage - Uncontrolled	-	-	1,094,839	-	-	**1,094,839**
T06C	Tauranga	Standard Residential & Commer	-	-	9,657,411	-	-	**9,657,411**
T06U	Tauranga	Standard Residential & Commer	-	-	6,514,053	-	-	**6,514,053**
			-	-	-	-	-	**-**
Unmetered Supply			-	-	-	-	-	**-**
V01	Valley	Unmetered/Streetlighting	-	-	28,946	-	-	**28,946**
V02	Valley	Unmetered/Streetlighting	-	266,742	-	-	-	**266,742**
V03	Valley	Unmetered/Streetlighting	-	-	-	-	-	**-**
			-	-	-	-	-	**-**
T01	Tauranga	Unmetered/Streetlighting	-	-	105,338	-	-	**105,338**
T02	Tauranga	Unmetered/Streetlighting	-	323,913	-	-	-	**323,913**
T03	Tauranga	Unmetered/Streetlighting	-	-	-	-	-	**-**
			-	-	-	-	-	**-**
Medium/Large Commercial			-	-	-	-	-	**-**
V24	Valley	Commercial three phase 100A p	-	-	1,528,619	-	-	**1,528,619**
V28	Valley	> 200 Amp up to 299 kVA merge	-	-	234,637	-	-	**234,637**
V40	Valley	Individual ICP prices	-	-	-	-	1,574,171	**1,574,171**
V60	Valley	Individual ICP prices	-	-	-	-	5,473,481	**5,473,481**
V601	Kinleith	Individual ICP prices	-	-	-	-	5,055,650	**5,055,650**
T22	Tauranga	Capacity 100 – 199kVA	-	-	1,215,904	-	-	**1,215,904**
T24	Tauranga	Capacity 200 -299kVA	-	-	161,580	-	-	**161,580**
T41	Tauranga	capacity 200 kVA unitised	-	-	492,743	-	-	**492,743**
T43	Tauranga	capacity 300 kVA - 1,500 kVA u	-	-	63,180	-	-	**63,180**
T50	Tauranga	Individual ICP prices	-	-	-	-	4,071,273	**4,071,273**
T60	Tauranga	Individual ICP prices	-	-	-	-	3,104,732	**3,104,732**
			-	**590,655**	**42,618,625**	**-**	**19,279,306**	**62,488,586**
			Total Pass through revenue					**118,846,176**

11 Attachment D – Transpower New Investment Contracts

The Determination requires Powerco to provide evidence of the amount of charge relating to any investment contract entered into in the Assessment Period consistent with clause 3.1.3(c) of the IM Determination.

Powerco has 19 New Investment Contracts in the 2017 Assessment Period as detailed in table 13 below.

Table 13: New Investment Contracts

Contract	2017 Assessment Period ($000)	New or existing contract this period	Refer
Carrington St Substation supply upgrade	572	Existing	Transpower Appendix 4
Transpower RTU connection	17	Existing	Letter from Transpower
Mt Maunganui 110 kV Transformer upgrade	934	Existing	Transpower Appendix 4
Neutral Earthing Resistor Project	15	Existing	Transpower Appendix 4
Tauranga 33 kV Indoor conversion	561	Existing	Transpower Appendix 4
Te Matai 110/33 kV transformer	249	Existing	Transpower Appendix 4
Upgrade of supply capacity	201	Existing	Transpower Appendix 4
Kaitimako GXP	387	Existing	Transpower Appendix 4
Kopu 66kV distance feeder protection	45	Existing	Transpower invoice
Masterton 33kV feeder panels indoor protection	111	Existing	Transpower invoice
Piako grid connection	1,251	Existing	Transpower invoice
Tauranga T4 Supply Transformer	513	Existing	Transpower Invoice
Masterton 110kV supply transformer upgrade	542	Existing	Transpower Invoice
Bunnythorpe indoor conversion-3 additional feeders	80	Existing	Transpower Invoice
ICCP link at New Plymouth	46	Existing and new	Transpower Invoice
Patea embedded connection	251	Existing	Transpower Invoice
Huirangi Supply transformer upgrade and 33kV additional circuits	877	New	Transpower Appendix 5
Kopu additional 66kV feeder	118	New	Letter from Transpower
Piako 110kV Bus Split	134	New	Transpower Appendix 5
Total New Investment Contracts	**6,904**		

Appendix 4: Schedule of updates to your new investment charges

This appendix sets out updates to your charges under the Customer Investment Contracts (CIC) and New Investment Contracts (NIC) you hold with Transpower. The updated charges are effective from 1 April 2016.

As per your contract, we have updated CIC charges from provisional to final using the final project costs that have been closed out for the following CICs (and applying the RCP2 pre-tax WACC rate). These final charges are effective from 1 April 2016 and will be subject to the adjustments outlined in Schedule 3 of the CIC.

Tauranga 33 kV Indoor Conversion
- Project budget cost[1]: $6,843,576.00
- Final project cost: $5,873,846.79
- Change from $57,734.67 to $46,714.00 per month

Carrington Street Additional 33 kV Feeder
- Project budget cost[2]: $882,913.00
- Final project cost: $743,982.33
- Change from $12,165.58 to $10,514.00 per month

As per your contract, we have updated NIC charges based on our annual review of the applicable risk-free rate. With effect from 1 April 2016, the risk-free rate applied to NIC charges will be 3.42%[3]. The revised risk-free rate means that the pre-tax finance rate (equal to the risk-free rate plus the margin of 2.5%) will be 5.92%. This is a decrease of 0.61 percentage points from the year to 1 April 2016.

The total effect on your monthly charges under each of your NICs with Transpower is set out below.

Carrington St Substation Supply Upgrade
- Change from $38,286.73 to $37,153.11 per month

Kaitamako GXP
- Change from $33,719.34 to $32,233.51 per month

Neutral Earth Resistor Project at Linton
- Change from $1,281.13 to $1,264.99 per month

Mt Maunganui 110kV Transformer Upgrade
- Change from $79,829.51 to $77,856.08 per month

Tauranga 110/33 kV Supply Transformer (T4)
- Change from $43,935.60 to $42,831.86 per month

Upgrade of Supply Capacity at Tauranga
- Change from $17,187.83 to $16,718.43 per month

Te Matai 110/33 kV Transformer
- Change from $21,689.33 to $20,735.84 per month

Appendix 5: Schedule of new provisional new investment charges

This appendix sets out new provisional charges under the Customer Investment Contracts (CIC) you hold with Transpower. These new charges will commence from 1 April 2016, and reflect the commissioning of assets in 2015.

As per your contract, we have calculated CIC charges based on the Commerce Commission's determination of the WACC rate to apply during Transpower's Regulatory Control Period (RCP2, from 1 April 2015 to 31 March 2020). With effect from 1 April 2015, the pre-tax WACC rate applied to CIC charges was 8.94%[1].

The new provisional charges that apply are as follows. Please note that provisional charges are based on the project budget contained in Schedule 2 of each CIC, and will be subject to the adjustments outlined in Schedule 3 of the CIC.

Piako 110 kV Bus Split

- Commissioning date: 24 April 2015
- Project budget: $505,192.00
- $11,159.00 per month

Huirangi supply transformer upgrade and 33 kV additional circuits

- Commissioning date: 5 August 2015
- Project budget: $7,754,447.00
- $73,054.00 per month

The new provisional charges will appear in your April invoice, sent in May. Please note the charges above are excluding GST.

This notice is in accordance with Schedule 3 of your Customer Investment Contract.

Should you require more information on how these charges are built up, please contact your relationship manager.

assigned 1/4/02
from UNET

TRANSPOWER

Bill Heaps
Tel: 4 495 6973
Fax: 4 495 7100
5876086

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Unisys House, 86 The Terrace
PO Box 1021, Wellington
New Zealand
Telephone: 64-4-495 7000
Facsimile: 64-4-495 7100
www.transpower.co.nz

25 October 2002

Mr John van Brink
UnitedNetworks Limited
44 Taharoto Road
Takapuna
Private Bag 1029777
North Shore Mail Centre
Auckland

Dear John

Connection to Transpower RTUs

We refer to the agreement between us (evidenced by the exchange of letters dated 9 and 29 July 1996) for the service of providing connection of your SCADA to our RTU and allowing you to read any existing inputs and by further agreement control any of the circuit breakers already connected to the RTU at a charge per site of $3,500.00 per annum (the sites being at the Wellsford, Albany, Henderson, Hepburn Road, Waihou, Waikino, Kopu, Hinuera, and Kinleith substations).

In view of the sale of certain assets to Powerco Limited and Hawke's Bay Network Limited, this letter records a new agreement in respect of these services but only in respect of sites and substations where Powerco will take over UNL's network should the sale proceed.

The service is to continue under this new agreement at $3,500.00 (plus GST) per annum per site until reasonable notice of termination (of not less than 3 months) is provided by either party but only in respect of the sites at Waihou, Waikino, Kopu, Hineura and Kinleith substations. This new agreement can, subject to Transpower's consent (not to be unreasonably withheld), be assigned to Powerco.

Naturally, this new agreement is in addition to and independent of the other new agreement in respect of the sites at the Wellsford, Albany, Henderson, and Hepburn Road substations.

Could you please acknowledge your acceptance of this as set out below, and return a signed copy to me.

TRANSPOWER
Keeping the energy flowing

PO Box 1021
Wellington 6140
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www.transpower.co.nz

Carolyn McArthur
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7 January 2016

Mike Smith
Transmission Analyst
Powerco Limited
84 Liardet Street
New Plymouth 4310

Dear Mike

Commissioning of CIC for Kopu Additional 66 kV Feeder

The equipment relating to the additional 66 kV feeder at Kopu, provided under the Customer Investment Contract between Transpower and Powerco Limited dated 7 August 2014 (**CIC**) was commissioned (for connection charging purposes) on 2 December 2015. The Commissioning Certificate is attached.

The provisional monthly **New Investment Charge** of $9,812.00 will commence from 1 April 2016 and will be subject to the adjustments outlined in Schedule 3 of the CIC.

The monthly **Connection Charges** for Kopu under your default Transmission Agreement with Transpower are revised from 2 December 2015. The Connection Charges for December were $200,370.65 which includes one day at the pre-commissioning rate and 30 days at the revised rate. Your monthly charge from 1 January 2016 is $200,407.42.

A revised Grid Charges Schedule is attached for inclusion in your default Transmission Agreement, effective from 2 December 2015.

Please contact me if you have any queries.

Yours sincerely

CRMcArthur

Carolyn McArthur
Contracts Specialist

TRANSPOWER Transpower New Zealand Ltd The National Grid

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Keeping the energy flowing

Powerco Limited
PRIVATE BAG 2061
NEW PLYMOUTH 4342

Tax Invoice	**0001102410**
GST No:	50-038-057
Invoice Date:	28/03/2017
Customer ID:	POCO
Account Manager:	Matt Fanning
Due Date:	**20/04/2017**
Page:	1

Reference	Description	Amount	
	Connection to Transpower RTUs for Mar 2017	1,458.33	
	Sub-Total		**1,458.33**
Bunnythorpe	Provisional CIC Charge for Bunnythorpe Indoor Conversion - Three Additional Feeders for Mar 2017	6,641.00	
	Sub-Total Bunnythorpe		**6,641.00**
Carrington St	Carrington St Substation Supply Upgrade for Mar 2017	10,514.00	
Carrington St	Carrington St Substation Supply Upgrade for Mar 2017	37,153.11	
	Sub-Total Carrington St		**47,667.11**
Hawera	Notional Embedding Contract for Mar 2017	20,938.00	
	Sub-Total Hawera		**20,938.00**
Huirangi	Provisional New Investment Charge for Huirangi Supply Transformer Upgrade and 33 kV Additional Circuits for Mar 2017	73,054.00	
	Sub-Total Huirangi		**73,054.00**
Kaitimako	New Investment Charge Kaitimako GXP for Mar 2017	32,233.51	
	Sub-Total Kaitimako		**32,233.51**
Kopu	New Investment Charges for Kopu 66 kV Distance Feeder Protection for Mar 2017	3,731.41	
Kopu	Provisional New Investment Charge for Kopu Additional 66 kV Feeder for Mar 2017	9,812.00	

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Reference	Description	Amount	
	Sub-Total Kopu		**13,543.41**
Linton	New Investment charge for Neutral Earthing Resistor Project for Mar 2017	1,264.99	
	Sub-Total Linton		**1,264.99**
Masterton	Provisional New Investment Charges for Masterton 110kV Supply Transformer Upgrade for Mar 2017	45,190.00	
Masterton	New Investment Charges for Masterton 33kV Feeder Panels Indoor Conversion for Mar 2017	9,269.58	
	Sub-Total Masterton		**54,459.58**
Mt Maunganui	New Investment Charge for Mt Maunganui 110 kV Transformer Upgrade for Mar 2017	77,856.08	
	Sub-Total Mt Maunganui		**77,856.08**
New Plymouth	ICCP link at New Plymouth for Mar 2017	2,500.00	
	Sub-Total New Plymouth		**2,500.00**
Piako	Provisional New Investment Charge for Piako 110 kV Bus Split for Mar 2017	11,159.00	
Piako	New Investment Charges for Piako Grid Connection for Mar 2017	104,246.00	
	Sub-Total Piako		**115,405.00**
Tauranga	New Investment charge for Upgrade of Supply Capacity for Mar 2017	16,718.43	

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Page:	3 of 3

Reference	Description	Amount	
Tauranga	Provisional New Investment Charge for Tauranga T4 Supply Transformer for Mar 2017	42,831.86	
Tauranga	New Investment Charge for Tauranga 33kV Indoor Conversion for Mar 2017	46,714.00	
	Sub-Total Tauranga		**106,264.29**
Te Matai	New Investment Charge for Te Matai 110/33 kV Transformer for Mar 2017	20,735.84	
	Sub-Total Te Matai		**20,735.84**
		Net Total:	**$574,021.14**
		GST:	**$86,103.17**
		Total:	**$660,124.31**

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NEW PLYMOUTH 4342

Tax Invoice	**0001098609**
GST No:	50-038-057
Invoice Date:	28/04/2016
Customer ID:	POCO
Account Manager:	Matt Fanning
Due Date:	**20/05/2016**
Page:	2

Reference	Description	Amount	
	Sub-Total Kopu		13,543.41
Linton	New Investment charge for Neutral Earthing Resistor Project for Apr 2016	1,264.99	
	Sub-Total Linton		1,264.99
Masterton	Provisional New Investment Charges for Masterton 110kV Supply Transformer Upgrade for Apr 2016	45,190.00	
Masterton	New Investment Charges for Masterton 33kV Feeder Panels Indoor Conversion for Apr 2016	9,269.58	
	Sub-Total Masterton		54,459.58
Mt Maunganui	New Investment Charge for Mt Maunganui 110 kV Transformer Upgrade for Apr 2016	77,856.08	
	Sub-Total Mt Maunganui		77,856.08
New Plymouth	ICCP link at New Plymouth for Apr 2016	2,500.00	
New Plymouth	ICCP link at New Plymouth for the period 15/09/2015 to 31/03/2016 for Apr 2016	16,273.97	
	Sub-Total New Plymouth		18,773.97
Piako	Provisional New Investment Charge for Piako 110 kV Bus Split for Apr 2016	11,159.00	
Piako	New Investment Charges for Piako Grid Connection for Apr 2016	104,246.00	

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12 Attachment E – Reliability limits and boundary values, caps, collars and targets

The reliability limits and unplanned boundary values for SAIDI and SAIFI listed below are from Schedule 4a of the Determination. The target, collar and cap for SAIDI and SAIFI listed below are from Schedule 5b of the Determination.

Table 14 Powerco's Reliability limits, boundary values, target, collar and cap

	Limit	Unplanned Boundary Value	Target	Collar	Cap
SAIDI	210.629	11.214	188.8628	167.0966	210.6290
SAIFI	2.520	0.064	2.3406	2.1615	2.5197

There have been no recalculations of the SAIDI and SAIFI limits, unplanned boundary values, targets, caps or collars in this assessment period.

13 Attachment F – Reliability in the 2017 Assessment Period

This section provides detail on Powerco's reliability in the 2017 Assessment Period and comments on the cause of the Major Event Days in this period.

Powerco's SAIDI and SAIFI result is below the corresponding limits in this Assessment Period. However the regulatory targets for both SAIDI and SAIFI were exceeded.

As signalled in Powerco's 2016 Asset Management Plan[10], underlying reliability performance at specific locations across our networks is deteriorating due to a combination of declining asset condition and reducing security headroom. This is one of the drivers for our increasing investment in asset renewal and security upgrades described in the Asset Management Plan, and one of the reasons why Powerco intends to submit a CPP application in June 2017.

What is notable about this result was that the weather was not atypically worse than normal, demonstrated by there being only two major event days. This supports Powerco's analysis in its CPP application of underlying deterioration in the network. Worsening of SAIDI and SAIFI in the second half of the year required significant management action to minimise the impact of outages on our customers. These actions included:

- Powerco and Downer reviewing the response effectiveness of every HV fault
- Control Room escalation to Powerco senior management if HV faults were not acknowledged within 10 minutes
- A daily technical review of subtransmission faults to identify and remedy underlying issues
- Weekly reports on progress to the CEO and Board.

A careful balance was struck in continuing the capital work programme. Work continued, given the importance of maintaining safety and reliability and continuing to invest in the network and the benefits of this to consumers in the long run. Management however, continued to minimise SAIDI and SAIFI where possible

[10] Powerco's full Asset Management Plan is available from our website www.powerco.co.nz.

by making strategic decisions on where to reduce work as appropriate, and safety and risk management were given a priority.

11.1 Commentary on Major Event Days

A major event day occurs when the Unplanned Boundary Value is exceeded. During the Assessment Period Powerco experienced two major event days. On 13 November 2016 the Unplanned Boundary Value for SAIFI was exceeded. On the following day the Unplanned Boundary Values for both SAIDI and SAIFI were exceeded.

Trip of Circuit breaker at the Tauranga GXP – 13 November 2016

On 13 November two circuit breakers tripped at the Tauranga GXP. This was a result of a flashover of unknown cause on an insulator just outside the Greerton substation. The circuit breakers at Greerton had a sticky mechanism that failed to open. The back-up protection at Greerton had to operate to clear the fault. This resulted in over 21,000 consumers experiencing a loss of supply. The high number of consumers affected resulted in the daily unplanned SAIFI exceeding the Boundary Value. As highlighted in Powerco's 2016 AMP, the circuit breakers at Greerton are aged and are planned for renewal.

Severe weather event and Kaikoura earthquake – 14 November 2016

At 12.02am on 14 November a magnitude 7.8 earthquake occurred near Culvenden. This was followed by a 6.2 magnitude earthquake centered north of Kaikoura. These events caused interruptions to supply across much of the Western region. The clashing of 33kV lines during the prolonged period of shaking resulted in interruptions to supply to approximately 30,000 customers.

The disrupted supply was exacerbated with a severe storm crossing across the Taranaki region from late that same evening. Supply was interrupted to approximately 3,150 customers.

14 Attachment G – Compliance References

The following tables reference the Determination requirements and provide guidance on the section of this Statement that meets the specified requirements.

Table 15: Price Path Summary

Determination clause	Requirement	Section of this document
8.3	Notional Revenue in an assessment period must not exceed the Allowable Notional Revenue for the assessment period	2.1
8.6	Demonstrate the recovery of pass-through costs and recoverable costs by calculating the pass-through balance	2.5

Table 16: Quality Path Summary

Determination clause	Requirement	Section of this document

9.1(a)	Comply with the annual reliability assessment where assessed values for SAIDI and SAIFI for the Assessment Period must not exceed the reliability limits for SAIDI and SAIFI	3.1
9.1(b)	Comply with the annual reliability assessments for each of the two immediately preceding assessment periods	3.4

Table 17: Annual compliance statement

Determination clause	Requirement	Section of this document
An annual Compliance Statement must be provided to the Commission consisting of:		
11.2(a)	A statement regarding compliance with the price path and quality standards	1
11.2(b)	Information required to evidence price path compliance, being:	
11.4(a)	Any reasons for non-compliance with the price path	N/A
11.4(b)	Actions taken to mitigate any non-compliance and to prevent similar non-compliance in future periods	N/A
11.4(c)	The amount of allowable notional revenue, notional revenue, distribution prices, quantity, along with all numeric data, other relevant data, information and calculations	2.2, 2.3 and Attachment A
11.4(d)	In relation to each price during any part of the assessment period, the price and the portion of that price that are pass-through prices and the portion that are distribution prices	2.4.2 and Attachment B
11.4(e)	The methodology used to calculate distribution and pass-through prices, along with information clearly identifying the portion of pass-through prices attributable to: (i) pass-through costs and recoverable costs for the assessment period in question; and (ii) Any under or over-recovery of pass-through costs and recoverable costs from a prior assessment period, as reflected by the pass-through balance	2.4
11.4(f)	The pass-through balance, pass-through prices, and quantities for the Assessment Period and the preceding Assessment Period, along with the units of measurement associated with all numeric data, and other relevant data, information and calculations	2.5 and Attachment C
11.4(g)	The amount of pass-through costs and recoverable costs included in the calculation of the pass-through balance for the Assessment Period and supporting data, information and calculations used to	2.4.3

Determination clause	Requirement	Section of this document
	determine those amounts	
11.4(h)	Evidence of the amount of charge relating to any investment contract entered into in the Assessment Period consistent with clause 3.1.3(c) of the IM Determination, which need not be disclosed under 11.1(c)	Attachment D
11.4(i)	The amount of any pass-through costs and recoverable Costs (actual or forecast) used to set pass-through prices for the Assessment Period	2.4.3
11.4(j)	An explanation as to the cause, or likely cause, of any differences between the amounts of pass-through or recoverable costs used to set prices and actual amounts of those pass-through costs and recoverable costs	2.4
11.4(k)	A reconciliation between the pass-through balance for the Assessment period with the pass-through balance for the preceding Assessment Period	2.5.2
11.2(c)	Information required to evidence compliance with the quality standards, being:	
11.5(a)	Any reasons for non-compliance with the annual reliability assessment	N/A
11.5(b)	Actions taken to mitigate any non-compliance and to prevent similar non-compliance in future periods	N/A
11.5(c)	SAIDI and SAIFI assessed values, limits, unplanned boundary values, caps, collars and targets for the assessment period and any supporting calculations (including those in schedule 4A) and the annual reliability assessments for the two previous assessment periods	3.1-3.4 and Attachment E
11.5(d)	Any recalculations of the SAIDI and SAIFI limits, unplanned boundary values, targets, caps and collars following a major transaction or transfer of transmission assets from Transpower that become system fixed assets, or a transfer of system fixed assets to Transpower including any supporting information, calculations, or data used to determine the historic SAIDI and SAIFI values of the newly acquired or transferred assets	N/A (refer 5,6 and Attachment E)
11.5(e)	A descriptions of the policies and procedures which Powerco has used for capturing and recording interruptions and for calculating SAIDI and SAIFI assessed values for the assessment period	3.5
11.5(f)	The cause of each Major Event Day within the assessment period	Attachment F

Determination clause	Requirement	Section of this document
11.2(d)	State whether or not— (i) Powerco has undertaken a restructure of prices during the assessment period; (ii) Powerco has received a transfer of transmission assets from Transpower that become system fixed assets, or transferred system fixed assets to Transpower; (iii) Any amalgamation or merger has occurred in the assessment period; and (iv) Any major transaction has occurred in the period	4-6
11.2(e)	If there has been an amalgamation, merger or major transaction, the annual compliance statement for the assessment period must— i) State whether Powerco has complied with clauses 10.1 to 10.4 of the Determination; and ii) Include any information or calculations required to be made under clauses 10.1 to 10.4 of the Determination	NA
11.2(f)	If there has been a restructure of prices in the assessment period or the previous assessment period include any additional information in accordance with clauses 11.7 and 11.8 of the Determination as below	
11.7	If Powerco has undertaken a restructure of prices that first applied during the current or preceding assessment period, the annual compliance statement must state the nature of the restructure of the prices and identify the consumer groups impacted by the restructure of prices	2.6
11.8	If Powerco has undertaken a restructure of prices that first applied during the current or preceding assessment period, and Powerco has derived quantities for the purposes of calculating ANR or NR as provided for under clause 8.10 of the Determination (where quantities for the period two years prior are not available, the annual compliance statement must include— i) The methodology used to determine the quantities that corresponds to each restructured price; ii) The forecast of the quantities corresponding to each restructured price prepared by Powerco for that assessment period and the actual quantities; and iii) An explanation for any differences between the actual and forecast quantities	NA – quantities were available
11.2(g)	State the date on which the statement was certified	Cover
11.3(a)	Include a certificate in the form set out in Schedule 6 signed by at least one Director of Powerco	Page 3
11.3(b)	Include an assurance report, meeting the requirements specified in Schedule 7, in respect of all information contained in the annual	7

Determination clause	Requirement	Section of this document
	compliance statement.	