Electricity Distribution Services Default Price-Quality Path Determination 2012

Annual Compliance Statement

For the assessment period:
1 April 2014 to 31 March 2015

29 May 2015

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1. Summary of Compliance

For the assessment period 1 April 2014 – 31 March 2015, Eastland Network Limited complied with the Price path and the quality standards.

Test	Result	Result
Price path threshold	$\frac{NR_{2015}}{R_{2015}} \leq 1$	Compliant
Quality threshold - SAIDI	$\frac{SAIDI_{ASSESS,2015}}{SAIDI_{LIMIT}} \leq 1$	Compliant
Quality threshold - SAIFI	$\frac{SAIFI_{ASSESS,2015}}{SAIFI_{LIMIT}} \leq 1$	Compliant

Contact for inquiries:
Mr Brent Stewart
General Manager - Energy
Ph (06) 869 0701
Fax (06) 867 8563
email brent.stewart@eastland.co.nz

Eastland Network Limited
PO Box 1048
172 Carnarvon St
Gisborne

2. Introduction

This Threshold Compliance Statement is submitted by Eastland Network Ltd pursuant to the Electricity Distribution Services Default Price-Quality Path Determination 2012 (the Determination).

This statement provides threshold compliance information applicable to the Assessment Period of 1 April 2014 to 31 March 2015.

3. Price path

As required under clause 11 of the Determination, this Statement provides evidence in the form of

- allowable notional revenue;
- notional revenue;
- prices;
- quantities;
- units of measurement associated with all numeric data;
- Pass through costs;
- Recoverable costs; and
- other relevant data, information, and calculations, that states Eastland Network's position with respect to the price path threshold as described in clause 8 of the Determination.

3.1 Compliance with the Price Path

ENL is compliant with the 2015 price path if at any time during the Assessment Period its notional revenue (NR_{2015}) did not exceed the allowable notional revenue (R_{2015});

$$\frac{NR_{2015}}{R_{2015}} \leq 1$$

Where -

NR_{2015} – Notional revenue from 1 April 2014 to 31 March 2015

R_{2015} – Allowable notional revenue from 1 April 2014 to 31 March 2015

The Eastland Network Ltd 2015 price path was 0.998 and is therefore compliant with clause 8.4 of the Default Price-Quality Path Determination 2012.

$$\frac{21{,}423{,}107}{21{,}461{,}277} = 0.998 \leq 1$$

4 Restructuring of Prices

Eastland Network did not restructure any prices during the Assessment Period and therefore clauses 8.5 and 8.6 of the Determination do not apply.

5. Quality standards

Introduction

As required under clause 9 of the Determination, this Statement documents the assessed values and reliability limits for the Assessment Period as well as the relevant SAIDI and SAIFI statistics and calculations together with other relevant data and information.

5.1 Compliance with Quality Standards

To comply with Quality standards, Eastland Network Ltd must not exceed its SAIDI or SAIFI reliability limit for

a) the 2015 Assessment Period; or
b) the two immediately preceding extant Assessment Periods.

5.1.1 SAIDI

Eastland Network does not exceed its reliability limit if

$$\frac{SAIDI_{ASSESS,2015}}{SAIDI_{LIMIT}} \leq 1$$

The SAIDI Reliability Limit for the 2014/15 Assessment Period is:

$SAIDI_{LIMIT}$ = 302.38

In 2014/15 Assessment Period, Eastland Network's SAIDI was 255.76 and therefore fell within Quality Thresholds. As a result, Eastland Network complies with clause 9.1(a) of the Determination.

$$SAIDI_{2015} \text{ Reliability Assessment} = \frac{255.76}{302.38} = 0.85 < 1$$

The SAIDI Reliability Assessment for the two preceding periods were:

$$SAIDI_{2014} \text{ Reliability Assessment} = \frac{279.80}{302.38} = 0.93 < 1$$

$$SAIDI_{2013} \text{ Reliability Assessment} = \frac{287.17}{302.38} = 0.94 < 1$$

5.1.2 SAIFI

The SAIFI quality threshold performance is as follows:

$$\frac{SAIFI_{ASSESS,2015}}{SAIFI_{LIMIT}} \leq 1$$

The SAIFI Reliability Limit for the 2014/15 Assessment Period is:

$SAIFI_{LIMIT} = 4.26$

In 2014/15 Assessment Period, Eastland Network's SAIFI was 3.97 and therefore fell within Quality Thresholds. As a result Eastland Network complies with clause 9.1(a) of the Determination.

$$SAIFI_{2015} \text{ Reliability Assessment} = \frac{3.97}{4.26} = 0.93 < 1$$

The SAIFI Reliability Assessment for the two preceding periods were:

$$SAIFI_{2014} \text{ Reliability Assessment} = \frac{2.67}{4.26} = 0.63 < 1$$

$$SAIFI_{2013} \text{ Reliability Assessment} = \frac{3.82}{4.26} = 0.89 < 1$$

5.2 Policies and procedures for recording SAIDI and SAIFI

As required under clause 11.3(i) of the Determination, the policies and procedures used by Eastland Network for recording the SAIDI and SAIFI statistics for the assessment period are described in sections 5.2.1 and 5.2.2 below.

5.2.1 Procedures

Connection Connectivity:

- Individual network connections are linked to a specific distribution transformer via GIS and ICP Billing system data outputs.
- Connection information and network connectivity is updated in GIS and ICP Billing systems from Network Alteration Application forms and/or as built Network Alteration data returns.
- GIS connection counts per network segment are updated and reviewed against ICP Billing system data six monthly.

- The process of Outage Notification to energy retailers provides an audit of connection and connectivity data accuracy.
- **Responsibility:** Project Engineers and Information Manager.

Interruption Data Capture:

- A Supply Interruption Data Input Form is completed for all notifiable outages. Data is captured in accordance with the definitions and requirements of the Electricity Distribution Information Disclosure Determination 2012, Electricity Distribution Services Default Price-Quality Path Determination 2012 and Reliability Performance Measurement Manual 1994 (and updates).
- **Responsibility:** System Operator

Interruption Data Analysis and Reporting:

- Interruption data entered into Outage Database and used for internal and external reporting.
- **Responsibility**: GM Electricity Operations

5.2.2 Policies

- Collection and analysis of interruption data is to be completed in accordance with Electricity Distribution Information Disclosure Determination 2012, Electricity Distribution Services Default Price-Quality Path Determination 2012 and Reliability Performance Measurement Manual 1994 (and updates).
- Monthly comparison of actual interruption performance with Asset Management Plan and Statement of Corporate Intent targets reported to and reviewed by the Board of Directors.
- Annual audits are undertaken on Connectivity, Interruption data capture and reporting processes to determine the accuracy and compliance of deliverables.

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

The Auditor-General is the auditor of Eastland Network Limited (the company). The Auditor-General has appointed me, Trevor Deed, using the staff and resources of Deloitte, to provide an opinion, on her behalf, on whether the Annual Compliance Statement for the year ended on 31 March 2015 on pages 3 to 8 and 13 to 21 complies, in all material respects, with the Electricity Distribution Services Default Price-Quality Path Determination 2012 NZCC 35 (the Determination).

Directors' responsibilities for the Annual Compliance Statement

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

Auditor's responsibility for the Annual Compliance Statement

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

Basis of opinion

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

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

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

In relation to the price path set out in clause 8 of the Determination, our audit included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 3 to 8 and 13 to 21 of the Annual Compliance Statement.

In relation to the SAIDI and SAIFI statistics for the Reference Period and the Assessment Period ended on 31 March 2015, including the calculation of the Reliability Limits and the Assessed Values, which are relevant to the quality standards set out in clause 9 of the Determination, our audit included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 3 to 8 and 13 to 21 of the Annual Compliance Statement.

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

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

Use of this report

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

Scope and inherent limitations

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

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

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

Independence

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

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

Opinion

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

Our audit was completed on 27 May 2015 and our opinion is expressed as at that date.

Trevor Deed
Deloitte
On behalf of the Auditor-General
Wellington, New Zealand

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7 Directors' certificate

DIRECTORS' CERTIFICATE ON ANNUAL COMPLIANCE STATEMENT

We, Nelson Gull and John Clarke, being directors of Eastland Network Limited certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached Annual Compliance Statement of Eastland Network Limited, and the related information, prepared for the purposes of the Electricity Distribution Default Price-Quality Path Determination 2012 are true and accurate.

Director

Director

27th May 2015

Date

Note: Section 103(2) of the Commerce Act 1986 provides that no person shall attempt to deceive or knowingly mislead the Commission in relation to any matter before it. It is an offence to contravene section 103(2) and any person who does so is liable on summary conviction to a fine not exceeding $10,000 in the case of an individual or $30,000 in the case of a body corporate.

8 Price Path Threshold Supporting Calculations

8.1 Notional Revenue for the Assessment Period

Notional revenue ($NR_{2014/15}$) for the period from 1 April 2014 to 31 March 2015 is calculated in accordance with the following formula:

$$NR_{2014/15} = \Sigma P_{i,2014/15} Q_{i,2012/13} - K_{2014/15} - V_{2014/15}$$

Definitions:

$P_{i,2014/15}$ = The Eastland Network prices that applied during the Assessment Period 1 April 2014 to 31 March 2015.

$Q_{i,2012/13}$ = The Eastland Network quantities that applied for the pricing period 1 April 2012 to 31 March 2013.

$V_{2014/15}$ = The sum of all Recoverable costs and Indirect Transmission charges during the period 1 April 2014 to 31 March 2015.

$K_{2014/15}$ = The sum of all pass-through costs for the period of 1 April 2014 to 31 March 2015.

$C_{2014/15}$ = The claw-back amount to be treated as recoverable costs for the 1 April 2014 to 31 March 2015 period.

The calculation can be shown as follows:

$\Sigma P_{i,2014/15} Q_{i,2012/13}$	Line Charge Revenue	33,760,230
$K_{2014/15}$	Territorial Rates	(203,662)
	Commerce Act, EA Levies & EGCC Levies	(132,371)
	TOTAL	(336,033)
$V_{2014/15}$	Transpower Charges	(9,392,463)
	Avoided Transmission Costs	(2,574,251)
	TOTAL	(11,966,714)
$C_{2014/15}$		(34,377)
Notional Revenue ($NR_{2014/15}$)		21,423,107

8.2 Allowable Notional Revenue for the Assessment Period

The allowable notional revenue ($R_{2014/15}$) for the period from 1 April 2014 to 31 March 2015 is calculated in accordance with the following formula:

$$R_{2014/15} = \Sigma(P_{i,2013/14}Q_{i,2012/13} - K_{2013/14} - V_{2013/14} + (R_{2013/14} - NR_{2013/14})) *(1 + \Delta CPI_{2014/15})(1 - X))$$

Definitions:

$R_{2014/15}$	=	The Allowable Notional Revenue for the period of 1 April 2014 to 31 March 2015.
$P_{i,2013/14}$	=	The prices for the period of 1 April 2013 to 31 March 2014.
$Q_{i,2012/13}$	=	The quantities for the period of 1 April 2012 to 31 March 2013.
$K_{2013/14}$	=	The sum of all pass-through costs for the period of 1 April 2013 to 31 March 2014.
$V_{2013/14}$	=	The sum of all Recoverable Costs and Indirect Transmission Charges relating to the period from 1 April 2013 to 31 March 2014.
$R_{2013/14}$	=	The Allowable Notional Revenue for the period of 1 April 2013 to 31 March 2014.
$NR_{2013/14}$	=	The Notional Revenue for the period of 1 April 2013 to 31 March 2014.
$\Delta CPI_{2014/15}$	=	The derived change in the CPI to be applied during the period 1 April 2014 to 31 March 2015.
X	=	The rate of change for the period 1 April 2014 to 31 March 2015, as specified in in Table 2, Schedule 1B of the DPP Determination 2012.

The calculation can be shown as follows:

$Prices_{2013/14}$ $Quantities_{2012/13}$		32,607,005
$K_{2013/14}$	Territorial Rates	(188,039)
	Commerce Act, EA Levies & EGCC Levies	(108,948)
	TOTAL	(296,987)
$V_{2013/14}$	Transpower Charges	(8,548,203)
	Avoided Transmission Costs	(2,662,234)
	TOTAL	(11,210,437)
$R_{2013/14}$		21,331,355
$NR_{2013/14}$		(21,175,833)
$\Delta CPI_{2014/15}$		1.0097
X		1.0000
Allowable Notional Revenue ($R_{2014/15}$)		21,461,277

8.2.1 Pass through cost variance to forecast

As required by clause 11.1(b)(ii) of the Determination, the following discusses the differences between the forecasted pass through costs that were used when Eastland Network set prices and the actual amounts during the Assessment Period.

The forecasted and actual Pass Through costs are as follows:

Pass through cost	Forecast	Actual	Difference
Territorial Rates	224,359	203,662	20,697
Commerce Act, EA & EGCC	141,060	132,371	8,689
Total	365,419	336,033	29,386

Variance explanation:

- **Territorial rates** – The forecast rates erroneously included GST, the lower actual territorial rates and difference are reflective of no GST.
- **Commerce Act, EA & EGCC Levies** – Actual levies payable were lower than forecast, the difference is immaterial.

The forecasted and actual Recoverable costs are as follows:

Recoverable costs	Forecast	Actual	Difference
Transpower Charges	9,392,463	9,392,463	-
Avoided Transmission	2,672,110	2,574,251	97,859
Total	12,064,573	11,966,714	97,859

Variance explanation:

- **Transpower Charges** – Forecast figures used the amounts notified by Transpower in their Transmission charge notice, consequently actual figures are the same as those budgeted.
- **Avoided Transmission** – A reduction in the overall cost of supply of generation caused largely by a reduction in output during the year resulted in lower ACOT payment than forecast.

8.3 Quantities for period from 1 April 2012 to 31 March 2013

Price Category		Consumer Group	Charge Type	2012/13	
				ICPs	KWh
Domestic					
PDH0030		Domestic	Fixed Daily Charge	13,716	
PDH0030		Domestic	Consumption Uncontrolled		60,680,103
PDH0030		Domestic	Consumption Controlled		25,949,094
PDH0030		Domestic	Consumption Night		31,474
PDL0030		Domestic	Fixed Daily Charge	6,182	
PDL0030		Domestic	Consumption Uncontrolled		28,815,534
PDL0030		Domestic	Consumption Controlled		10,680,374
PDL0030		Domestic	Consumption Night		55,496

Price Category		Consumer Group	Charge Type	2012/13 ICPs	2012/13 KWh
Non-Domestic - High Density					
PNH0003		Low Capacity (0 to 3kVA)	Fixed Daily Charge	130	
PNH0003		Low Capacity (0 to 3kVA)	Capacity Charge		
PNH0003		Low Capacity (0 to 3kVA)	Demand Charge		
PNH0003		Low Capacity (0 to 3kVA)	Consumption Uncontrolled		670,069
PNH0003		Low Capacity (0 to 3kVA)	Consumption Controlled		
PNH0003		Low Capacity (0 to 3kVA)	Consumption Night		
PNH0030	H	Demand (0 to 30kVA)	Fixed Daily Charge	1,637	
PNH0030	oli	Demand (0 to 30kVA)	Capacity Charge		
PNH0030	da	Demand (0 to 30kVA)	Demand Charge		
PNH0030	y	Demand (0 to 30kVA)	Consumption Uncontrolled		21,437,471
PNH0030	ho	Demand (0 to 30kVA)	Consumption Controlled		939,294
PNH0030	m	Demand (0 to 30kVA)	Consumption Night		19,086
	es				
PNH0100		Demand (31 to 100kVA)	Fixed Daily Charge	265	
PNH0100		Demand (31 to 100kVA)	Capacity Charge		
PNH0100		Demand (31 to 100kVA)	Demand Charge		
PNH0100		Demand (31 to 100kVA)	Consumption Uncontrolled		20,442,021
PNH0100		Demand (31 to 100kVA)	Consumption Controlled		414,520
PNH0100		Demand (31 to 100kVA)	Consumption Night		26,888
PNH0300		Demand (101 to 300kVA)	Fixed Daily Charge	62	
PNH0300		Demand (101 to 300kVA)	Capacity Charge		
PNH0300		Demand (101 to 300kVA)	Demand Charge		
PNH0300		Demand (101 to 300kVA)	Consumption Uncontrolled		13,474,119
PNH0300		Demand (101 to 300kVA)	Consumption Controlled		15,161
PNH0300		Demand (101 to 300kVA)	Consumption Night		
PTH0300		TOU - Demand (201-300kVA)	Fixed Daily Charge	3	
PTH0300		TOU - Demand (201-300kVA)	Consumption Uncontrolled		
PTH0300		TOU - Demand (201-300kVA)			
PTH0300		TOU - Demand (201-300kVA)	Consumption Evening Peak		212,735
PTH0300		TOU - Demand (201-300kVA)	Consumption Morning Peak		271,026
PTH0300		TOU - Demand (201-300kVA)	Consumption Off Peak		364,303
PTH0300		TOU - Demand (201-300kVA)	Consumption Night		194,923
PNH0500		TOU - Demand (301-500kVA)	Fixed Daily Charge	16	
PNH0500		TOU - Demand (301-500kVA)	Capacity Charge		
PNH0500		TOU - Demand (301-500kVA)	Demand Charge		
PNH0500		TOU - Demand (301-500kVA)	Consumption Evening Peak		1,254,700
PNH0500		TOU - Demand (301-500kVA)	Consumption Morning Peak		2,025,620
PNH0500		TOU - Demand (301-500kVA)	Consumption Off Peak		2,607,021
PNH0500		TOU - Demand (301-500kVA)	Consumption Night		1,904,646
PNH1000		TOU - Demand (501-1000kVA)	Fixed Daily Charge	21	
PNH1000		TOU - Demand (501-1000kVA)	Capacity Charge		
PNH1000		TOU - Demand (501-1000kVA)	Demand Charge		
PNH1000		TOU - Demand (501-1000kVA)	Consumption Evening Peak		4,232,665
PNH1000		TOU - Demand (501-1000kVA)	Consumption Morning Peak		6,064,252
PNH1000		TOU - Demand (501-1000kVA)	Consumption Off Peak		8,122,793
PNH1000		TOU - Demand (501-1000kVA)	Consumption Night		6,903,979
PNH4500		TOU - Demand (1001-4500kVA)	Fixed Daily Charge	1	
PNH4500		TOU - Demand (1001-4500kVA)	Capacity Charge		
PNH4500		TOU - Demand (1001-4500kVA)	Demand Charge		
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Evening Peak		842,512
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Morning Peak		1,028,575
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Off Peak		1,498,387
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Night		1,638,246
PNH6500		TOU - Demand (4501-6500kVA)	Fixed Daily Charge	1	
PNH6500		TOU - Demand (4501-6500kVA)	Capacity Charge		
PNH6500		TOU - Demand (4501-6500kVA)	Demand Charge		
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Evening Peak		3,855,711
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Morning Peak		5,095,201
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Off Peak		7,029,757
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Night		7,329,676

Price Category		Consumer Group	Charge Type	2012/13 ICPs	2012/13 KWh
Non-Domestic - Low Density					
PNL0003	Mainly street	Low Capacity (0 to 3kVA)	Fixed Daily Charge	108	
PNL0003		Low Capacity (0 to 3kVA)	Capacity Charge		
PNL0003		Low Capacity (0 to 3kVA)	Demand Charge		
PNL0003		Low Capacity (0 to 3kVA)	Consumption Uncontrolled		278,575
PNL0003		Low Capacity (0 to 3kVA)	Consumption Controlled		
PNL0003		Low Capacity (0 to 3kVA)	Consumption Night		
PNL0030	Holiday homes	Demand (0 to 30kVA)	Fixed Daily Charge	3,309	
PNL0030		Demand (0 to 30kVA)	Capacity Charge		
PNL0030		Demand (0 to 30kVA)	Demand Charge		
PNL0030		Demand (0 to 30kVA)	Consumption Uncontrolled		16,135,755
PNL0030		Demand (0 to 30kVA)	Consumption Controlled		1,198,532
PNL0030		Demand (0 to 30kVA)	Consumption Night		95,576
PNL0100		Demand (31 to 100kVA)	Fixed Daily Charge	80	
PNL0100		Demand (31 to 100kVA)	Capacity Charge		
PNL0100		Demand (31 to 100kVA)	Demand Charge		
PNL0100		Demand (31 to 100kVA)	Consumption Uncontrolled		4,635,206
PNL0100		Demand (31 to 100kVA)	Consumption Controlled		131,183
PNL0100		Demand (31 to 100kVA)	Consumption Night		
PNL0300		Demand (101 to 300kVA)	Fixed Daily Charge	11	
PNL0300		Demand (101 to 300kVA)	Capacity Charge		
PNL0300		Demand (101 to 300kVA)	Demand Charge		
PNL0300		Demand (101 to 300kVA)	Consumption Uncontrolled		1,135,857
PNL0300		Demand (101 to 300kVA)	Consumption Controlled		1,087
PNL0300		Demand (101 to 300kVA)	Consumption Night		
PTL0300		TOU - Demand (201-300kVA)	Fixed Daily Charge	1	
PTL0300		TOU - Demand (201-300kVA)	Capacity Charge		
PTL0300		TOU - Demand (201-300kVA)	Demand Charge		
PTL0300		TOU - Demand (201-300kVA)	Consumption Evening Peak		340
PTL0300		TOU - Demand (201-300kVA)	Consumption Morning Peak		23,310
PTL0300		TOU - Demand (201-300kVA)	Consumption Off Peak		25,879
PTL0300		TOU - Demand (201-300kVA)	Consumption Night		479
PNL0500		TOU - Demand (301-500kVA)	Fixed Daily Charge	3	
PNL0500		TOU - Demand (301-500kVA)	Capacity Charge		
PNL0500		TOU - Demand (301-500kVA)	Demand Charge		
PNL0500		TOU - Demand (301-500kVA)	Consumption Evening Peak		261,277
PNL0500		TOU - Demand (301-500kVA)	Consumption Morning Peak		355,506
PNL0500		TOU - Demand (301-500kVA)	Consumption Off Peak		480,963
PNL0500		TOU - Demand (301-500kVA)	Consumption Night		362,811
PNL1000		TOU - Demand (501-1000kVA)	Fixed Daily Charge	1	
PNL1000		TOU - Demand (501-1000kVA)	Capacity Charge		
PNL1000		TOU - Demand (501-1000kVA)	Demand Charge		
PNL1000		TOU - Demand (501-1000kVA)	Consumption Evening Peak		124,799
PNL1000		TOU - Demand (501-1000kVA)	Consumption Morning Peak		231,570
PNL1000		TOU - Demand (501-1000kVA)	Consumption Off Peak		293,471
PNL1000		TOU - Demand (501-1000kVA)	Consumption Night		130,576
PNL4500		TOU - Demand (1001-4500kVA)	Fixed Daily Charge	1	
PNL4500		TOU - Demand (1001-4500kVA)	Capacity Charge		
PNL4500		TOU - Demand (1001-4500kVA)	Demand Charge		
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Evening Peak		2,087,011
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Morning Peak		3,346,926
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Off Peak		4,197,545
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Night		3,537,546
PNL6500		TOU - Demand (4501-6500kVA)	Fixed Daily Charge		
PNL6500		TOU - Demand (4501-6500kVA)	Capacity Charge		
PNL6500		TOU - Demand (4501-6500kVA)	Demand Charge		
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Evening Peak		
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Morning Peak		
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Off Peak		
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Night		

Price Category		Consumer Group	Charge Type	2012/13	
				ICPs	KWh
PNG0500		Assessed Capacity (301 to 500kVA)	Fixed Daily Charge	0	
PNG1000		Assessed Capacity (501 to 1000kVA)	Fixed Daily Charge	6	
PNG4500		Assessed Capacity (1001 to 4500kVA)	Fixed Daily Charge	1	
PNG6500		Assessed Capacity (4501 to 6500kVA)	Fixed Daily Charge	1	
		Total Generation			
				25,556	285,199,212

Prices for the period 1 April 2014 to 31 March 2015 and $P_{2014/15}$ x $Q_{2012/13}$

Price Category	Consumer Group	Charge Type	2014/15 Distribution Charge	2014/15 Transmission Charge	2014/15 Total Charge	Prices 2014/15 X Quantities 2012/13
Domestic						
PDH0030	Domestic	Fixed Daily Charge	0.1125	0.0375	0.1500	750,951
PDH0030	Domestic	Consumption Uncontrolled	0.1108	0.0400	0.1508	9,150,992
PDH0030	Domestic	Consumption Controlled	0.0576	0.0208	0.0784	2,033,302
PDH0030	Domestic	Consumption Night	0.0144	0.0052	0.0196	617
PDL0030	Domestic	Fixed Daily Charge	0.1125	0.0375	0.1500	338,455
PDL0030	Domestic	Consumption Uncontrolled	0.1291	0.0472	0.1763	5,080,262
PDL0030	Domestic	Consumption Controlled	0.0697	0.0255	0.0952	1,016,933
PDL0030	Domestic	Consumption Night	0.0168	0.0061	0.0229	1,273

Price Category		Consumer Group	Charge Type	2014/15 Distribution Charge	2014/15 Transmission Charge	2014/15 Total Charge	Prices 2014/15 X Quantities 2012/13
Non-Domestic - High Density							
PNH0003		Low Capacity (0 to 3kVA)	Fixed Daily Charge	0.2804	0.1115	0.3919	18,596
PNH0003		Low Capacity (0 to 3kVA)	Capacity Charge				
PNH0003		Low Capacity (0 to 3kVA)	Demand Charge				
PNH0003		Low Capacity (0 to 3kVA)	Consumption Uncontrolled	0.0899	0.0479	0.1378	92,336
PNH0003		Low Capacity (0 to 3kVA)	Consumption Controlled	0.0584	0.0311	0.0895	-
PNH0003		Low Capacity (0 to 3kVA)	Consumption Night	0.0112	0.0060	0.0172	-
PNH0030	H	Demand (0 to 30kVA)	Fixed Daily Charge	1.5766	0.5774	2.1540	1,287,026
PNH0030	oli	Demand (0 to 30kVA)	Capacity Charge				
PNH0030	da	Demand (0 to 30kVA)	Demand Charge				
PNH0030	y	Demand (0 to 30kVA)	Consumption Uncontrolled	0.0647	0.0344	0.0991	2,124,453
PNH0030	ho	Demand (0 to 30kVA)	Consumption Controlled	0.0421	0.0224	0.0645	60,584
PNH0030	m	Demand (0 to 30kVA)	Consumption Night	0.0112	0.0060	0.0172	328
	es						
PNH0100		Demand (31 to 100kVA)	Fixed Daily Charge	4.9067	1.9533	6.8600	663,534
PNH0100		Demand (31 to 100kVA)	Capacity Charge				
PNH0100		Demand (31 to 100kVA)	Demand Charge				
PNH0100		Demand (31 to 100kVA)	Consumption Uncontrolled	0.0441	0.0234	0.0675	1,379,836
PNH0100		Demand (31 to 100kVA)	Consumption Controlled	0.0286	0.0152	0.0438	18,156
PNH0100		Demand (31 to 100kVA)	Consumption Night	0.0112	0.0060	0.0172	462
PNH0300		Demand (101 to 300kVA)	Fixed Daily Charge	9.2526	3.6833	12.9359	292,739
PNH0300		Demand (101 to 300kVA)	Capacity Charge				
PNH0300		Demand (101 to 300kVA)	Demand Charge				
PNH0300		Demand (101 to 300kVA)	Consumption Uncontrolled	0.0360	0.0191	0.0551	742,424
PNH0300		Demand (101 to 300kVA)	Consumption Controlled	0.0234	0.0124	0.0358	543
PNH0300		Demand (101 to 300kVA)	Consumption Night	0.0112	0.0060	0.0172	-
PTH0300		TOU - Demand (201-300kVA)	Fixed Daily Charge	15.4210	6.1388	21.5598	23,608
PTH0300		TOU - Demand (201-300kVA)	Consumption Uncontrolled				
PTH0300		TOU - Demand (201-300kVA)					
PTH0300		TOU - Demand (201-300kVA)	Consumption Evening Peak	0.0340	0.0170	0.0510	10,849
PTH0300		TOU - Demand (201-300kVA)	Consumption Morning Peak	0.0318	0.0159	0.0477	12,928
PTH0300		TOU - Demand (201-300kVA)	Consumption Off Peak	0.0250	0.0125	0.0375	13,661
PTH0300		TOU - Demand (201-300kVA)	Consumption Night	0.0112	0.0056	0.0168	3,275
PNH0500		TOU - Demand (301-500kVA)	Fixed Daily Charge	17.3837	6.9201	24.3038	141,934
PNH0500		TOU - Demand (301-500kVA)	Capacity Charge				
PNH0500		TOU - Demand (301-500kVA)	Demand Charge				
PNH0500		TOU - Demand (301-500kVA)	Consumption Evening Peak	0.0340	0.0170	0.0510	63,990
PNH0500		TOU - Demand (301-500kVA)	Consumption Morning Peak	0.0318	0.0159	0.0477	96,622
PNH0500		TOU - Demand (301-500kVA)	Consumption Off Peak	0.0250	0.0125	0.0375	97,763
PNH0500		TOU - Demand (301-500kVA)	Consumption Night	0.0112	0.0056	0.0168	31,998
PNH1000		TOU - Demand (501-1000kVA)	Fixed Daily Charge	26.9166	10.7150	37.6316	288,446
PNH1000		TOU - Demand (501-1000kVA)	Capacity Charge				
PNH1000		TOU - Demand (501-1000kVA)	Demand Charge				
PNH1000		TOU - Demand (501-1000kVA)	Consumption Evening Peak	0.0340	0.0170	0.0510	215,866
PNH1000		TOU - Demand (501-1000kVA)	Consumption Morning Peak	0.0318	0.0159	0.0477	289,265
PNH1000		TOU - Demand (501-1000kVA)	Consumption Off Peak	0.0250	0.0125	0.0375	304,605
PNH1000		TOU - Demand (501-1000kVA)	Consumption Night	0.0112	0.0056	0.0168	115,987
PNH4500		TOU - Demand (1001-4500kVA)	Fixed Daily Charge	67.2916	26.7875	94.0791	34,339
PNH4500		TOU - Demand (1001-4500kVA)	Capacity Charge				
PNH4500		TOU - Demand (1001-4500kVA)	Demand Charge				
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Evening Peak	0.0340	0.0170	0.0510	42,968
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Morning Peak	0.0318	0.0159	0.0477	49,063
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Off Peak	0.0250	0.0125	0.0375	56,190
PNH4500		TOU - Demand (1001-4500kVA)	Consumption Night	0.0112	0.0056	0.0168	27,523
PNH6500		TOU - Demand (4501-6500kVA)	Fixed Daily Charge	102.4093	40.7674	143.1767	52,259
PNH6500		TOU - Demand (4501-6500kVA)	Capacity Charge				
PNH6500		TOU - Demand (4501-6500kVA)	Demand Charge				
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Evening Peak	0.0340	0.0170	0.0510	196,641
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Morning Peak	0.0318	0.0159	0.0477	243,041
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Off Peak	0.0250	0.0125	0.0375	263,616
PNH6500		TOU - Demand (4501-6500kVA)	Consumption Night	0.0112	0.0056	0.0168	123,139

Price Category		Consumer Group	Charge Type	2014/15 Distribution Charge	2014/15 Transmission Charge	2014/15 Total Charge	Prices 2014/15 X Quantities 2012/13
Non-Domestic - Low Density							
PNL0003	M	Low Capacity (0 to 3kVA)	Fixed Daily Charge	0.2804	0.1115	0.3919	15,449
PNL0003	ai	Low Capacity (0 to 3kVA)	Capacity Charge				-
PNL0003	nl	Low Capacity (0 to 3kVA)	Demand Charge				-
PNL0003	y	Low Capacity (0 to 3kVA)	Consumption Uncontrolled	0.1039	0.0551	0.1590	44,293
PNL0003	str	Low Capacity (0 to 3kVA)	Consumption Controlled	0.0675	0.0358	0.1033	-
PNL0003	ee	Low Capacity (0 to 3kVA)	Consumption Night	0.0130	0.0068	0.0198	-
	t						
PNL0030	H	Demand (0 to 30kVA)	Fixed Daily Charge	1.5766	0.5774	2.1540	2,601,569
PNL0030	oli	Demand (0 to 30kVA)	Capacity Charge				
PNL0030	da	Demand (0 to 30kVA)	Demand Charge				
PNL0030	y	Demand (0 to 30kVA)	Consumption Uncontrolled	0.0675	0.0358	0.1033	1,666,823
PNL0030	ho	Demand (0 to 30kVA)	Consumption Controlled	0.0439	0.0233	0.0672	80,541
PNL0030	m	Demand (0 to 30kVA)	Consumption Night	0.0130	0.0068	0.0198	1,892
	es						
PNL0100		Demand (31 to 100kVA)	Fixed Daily Charge	4.9067	1.9533	6.8600	200,312
PNL0100		Demand (31 to 100kVA)	Capacity Charge				
PNL0100		Demand (31 to 100kVA)	Demand Charge				
PNL0100		Demand (31 to 100kVA)	Consumption Uncontrolled	0.0514	0.0273	0.0787	364,791
PNL0100		Demand (31 to 100kVA)	Consumption Controlled	0.0334	0.0177	0.0511	6,703
PNL0100		Demand (31 to 100kVA)	Consumption Night	0.0130	0.0068	0.0198	-
PNL0300		Demand (101 to 300kVA)	Fixed Daily Charge	9.2526	3.6833	12.9359	51,938
PNL0300		Demand (101 to 300kVA)	Capacity Charge				
PNL0300		Demand (101 to 300kVA)	Demand Charge				
PNL0300		Demand (101 to 300kVA)	Consumption Uncontrolled	0.0410	0.0218	0.0628	71,332
PNL0300		Demand (101 to 300kVA)	Consumption Controlled	0.0267	0.0141	0.0408	44
PNL0300		Demand (101 to 300kVA)	Consumption Night	0.0130	0.0068	0.0198	-
PTL0300		TOU - Demand (201-300kVA)	Fixed Daily Charge	15.4210	6.1388	21.5598	7,869
PTL0300		TOU - Demand (201-300kVA)	Capacity Charge				
PTL0300		TOU - Demand (201-300kVA)	Demand Charge				
PTL0300		TOU - Demand (201-300kVA)	Consumption Evening Peak	0.0357	0.0177	0.0534	18
PTL0300		TOU - Demand (201-300kVA)	Consumption Morning Peak	0.0334	0.0166	0.0500	1,166
PTL0300		TOU - Demand (201-300kVA)	Consumption Off Peak	0.0262	0.0131	0.0393	1,017
PTL0300		TOU - Demand (201-300kVA)	Consumption Night	0.0118	0.0059	0.0177	8
PNL0500		TOU - Demand (301-500kVA)	Fixed Daily Charge	17.3837	6.9201	24.3038	26,613
PNL0500		TOU - Demand (301-500kVA)	Capacity Charge				
PNL0500		TOU - Demand (301-500kVA)	Demand Charge				
PNL0500		TOU - Demand (301-500kVA)	Consumption Evening Peak	0.0357	0.0177	0.0534	13,952
PNL0500		TOU - Demand (301-500kVA)	Consumption Morning Peak	0.0334	0.0166	0.0500	17,775
PNL0500		TOU - Demand (301-500kVA)	Consumption Off Peak	0.0262	0.0131	0.0393	18,902
PNL0500		TOU - Demand (301-500kVA)	Consumption Night	0.0118	0.0059	0.0177	6,422
PNL1000		TOU - Demand (501-1000kVA)	Fixed Daily Charge	26.9166	10.7150	37.6316	13,736
PNL1000		TOU - Demand (501-1000kVA)	Capacity Charge				
PNL1000		TOU - Demand (501-1000kVA)	Demand Charge				
PNL1000		TOU - Demand (501-1000kVA)	Consumption Evening Peak	0.0357	0.0177	0.0534	6,664
PNL1000		TOU - Demand (501-1000kVA)	Consumption Morning Peak	0.0334	0.0166	0.0500	11,579
PNL1000		TOU - Demand (501-1000kVA)	Consumption Off Peak	0.0262	0.0131	0.0393	11,533
PNL1000		TOU - Demand (501-1000kVA)	Consumption Night	0.0118	0.0059	0.0177	2,311
PNL4500		TOU - Demand (1001-4500kVA)	Fixed Daily Charge	67.2916	26.7875	94.0791	34,339
PNL4500		TOU - Demand (1001-4500kVA)	Capacity Charge				
PNL4500		TOU - Demand (1001-4500kVA)	Demand Charge				
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Evening Peak	0.0357	0.0177	0.0534	111,446
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Morning Peak	0.0334	0.0166	0.0500	167,346
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Off Peak	0.0262	0.0131	0.0393	164,964
PNL4500		TOU - Demand (1001-4500kVA)	Consumption Night	0.0118	0.0059	0.0177	62,615
PNL6500		TOU - Demand (4501-6500kVA)	Fixed Daily Charge	102.4093	40.7674	143.1767	-
PNL6500		TOU - Demand (4501-6500kVA)	Capacity Charge				
PNL6500		TOU - Demand (4501-6500kVA)	Demand Charge				
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Evening Peak	0.0357	0.0177	0.0534	-
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Morning Peak	0.0334	0.0166	0.0500	-
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Off Peak	0.0262	0.0131	0.0393	-
PNL6500		TOU - Demand (4501-6500kVA)	Consumption Night	0.0118	0.0059	0.0177	-
		Total Low Density					
PNG0500		Assessed Capacity (301 to 500kVA)	Fixed Daily Charge	17.3837	-	17.3837	-
PNG1000		Assessed Capacity (501 to 1000kVA)	Fixed Daily Charge	26.9166	-	26.9166	58,947
PNG4500		Assessed Capacity (1001 to 4500kVA)	Fixed Daily Charge	67.2916	-	67.2916	24,561
PNG6500		Assessed Capacity (4501 to 6500kVA)	Fixed Daily Charge	102.4093	-	102.4093	37,379
		Total Generation					
							33,760,230

8.4 Supporting Statistics for Quality Threshold

The Assessment Period Quality Thresholds have been calculated in accordance with the Commerce Act (Electricity Thresholds Notice) 2004 and the Electricity Distribution Services Default Price-Quality Path Determination 2012.

8.4.1 SAIDI

The SAIDI Reliability Limits were determined as follows:

$$SAIDI_{LIMIT} = \mu_{SAIDI} + \delta_{SAIDI}$$

where:

μ_{SAIDI} = 250.29

δ_{SAIDI} = 52.09

$SAIDI_{LIMIT}$ = 302.38

8.4.2 SAIFI

The SAIFI Reliability Limits were determined as follows:

$$SAIFI_{LIMIT} = \mu_{SAIFI} + \delta_{SAIFI}$$

where:

μ_{SAIFI} = 3.50

δ_{SAIFI} = 0.76

***$SAIFI_{LIMIT}$* = 4.26**

8.5 Reliability Limit Boundary Values

These boundary values were determined in accordance with Schedule 2 of the Electricity Distribution Services Default Price-Quality Path Determination 2012 and were used to calculate the 2015 Reliability Limits.

8.5.1 Boundary Values

The SAIDI boundary value was determined as follows:

$$B_{SAIDI} = e^{(\alpha_{SAIDI} + \beta_{SAIDI})}$$

where:

α_{SAIDI} = -0.86

β_{SAIDI} = 1.60

$\boldsymbol{B_{SAIDI}}$ = **22.86**

The SAIFI boundary value was determined as follows:

$$B_{SAIFI} = e^{(\alpha_{SAIFI} + \beta_{SAIFI})}$$

where:

α_{SAIFI} = -5.31

β_{SAIFI} = 1.66

$\boldsymbol{B_{SAIFI}}$ = **0.32**