Electricity Distribution Services Default Price-Quality Path Determination 2010

Annual Compliance Statement

For the assessment period:
1 April 2012 to 31 March 2013

29 May 2013

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1 Summary of Compliance

For the assessment period 1 April 2012 – 31 March 2013, Eastland Network Limited complied with the Price path and the quality standards.

Test	Result
Price path threshold	Compliant
Quality threshold	Compliant

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Eastland Network Limited
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Initialled for identification

2 Introduction

This Threshold Compliance Statement is submitted by Eastland Network Ltd pursuant to the Electricity Distribution Services Default Price-Quality Path Determination 2010 and its subsequent amendments (together the Determination):

- Decision 704 – Commerce Act (Electricity Distribution Default Price-Quality Path) Amendment Determination 2010
- Decision 722 – Commerce Act (Electricity Distribution Default Price-Quality Path) Amendment Determination 2011
- Decision NZCC 4 – Electricity Distribution Services Default Price-Quality Path Determination Amendment No.3

This statement provides threshold compliance information applicable to the Assessment Date of 31 March 2013 with the Assessment Period being 1 April 2012 to 31 March 2013.

3 Price path

3.1 Introduction

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, 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.

3.2 Compliance with the 2013 price path

ENL is considered to be compliant with the 2013 price path if at any time during the Assessment Period its notional revenue (NR_{2012}) did not exceed the allowable notional revenue (R_{2013});

$$\frac{NR_{2013}}{R_{2013}} \leq 1$$

Where -

NR_{2013} – Notional revenue from 1 April 2012 to 31 March 2013

R_{2013} – Allowable notional revenue from 1 April 2012 to 31 March 2013

The Eastland Network Ltd 2013 price path was 0.94 and is therefore compliant with clause 8.4 of the Default Price-Quality Path Determination 2010.

$$\frac{20{,}865{,}480}{22{,}149{,}841} = 0.94 < 1$$

3.3 Restructuring of Prices

Eastland Network did not restructure any prices during the Assessment Period and therefore clause 8.6 and 8.7 of the Determination does not apply.

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4 Quality standards

4.1 Introduction

As required under clause 11 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.

4.2 Compliance with quality standards

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

a) the 2013 Assessment Period; or
b) the two immediately preceding extant Assessment Periods.

4.2.1 SAIDI

Eastland Network does not exceed its reliability limit if

$$\frac{SAIDI_{ASSESS,2013}}{SAIDI_{LIMIT}} \leq 1$$

The SAIDI Reliability Limit for the 2012/13 Assessment Period is:

$SAIDI_{LIMIT}$ = 302.38

In 2012/13 Assessment Period, Eastland Network's SAIDI was 287.17 and therefore fell within Quality Thresholds. As a result, Eastland Network complies with clause 9.1(a) of the Determination.

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

The SAIDI Reliability Assessment for the two preceding periods were:

$$SAIDI_{2012} \text{ Reliability Assessment} = \frac{392.15}{302.38} = 1.30 > 1$$

$$SAIDI_{2011} \text{ Reliability Assessment} = \frac{334.00}{302.38} = 1.10 > 1$$

4.2.2 SAIFI

The SAIFI quality threshold performance is as follows:

$$\frac{SAIFI_{ASSESS,2013}}{SAIFI_{LIMIT}} \leq 1$$

The SAIFI Reliability Limit for the 2012/13 Assessment Period is:

$SAIFI_{LIMIT} = 4.26$

In 2012/13 Assessment Period, Eastland Network's SAIFI was 3.82 and therefore fell within Quality Thresholds. As a result Eastland Network complies with clause 9.1(a) of the Determination.

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

The SAIFI Reliability Assessment for the two preceding periods were:

$$SAIFI_{2012} \text{ Reliability Assessment} = \frac{3.41}{4.26} = 0.80 < 1$$

$$SAIFI_{2011} \text{ Reliability Assessment} = \frac{3.49}{4.26} = 0.82 < 1$$

4.3 Policies and procedures for recording SAIDI and SAIFI

As required under clause 11.1(b)(v) of the Determination, the following explanation is provided on the policies and procedures used by Eastland Network for recording the SAIDI and SAIFI statistics for the assessment period.

4.3.1 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 Disclosure Requirements 2004 and Reliability Performance Measurement Manual 1994.
- **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

4.3.2 Policies

- Collection and analysis of interruption data is to be completed in accordance with Electricity Disclosure Requirements 2004 and Reliability Performance Measurement Manual 1994.
- 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 READERS OF THE ANNUAL COMPLIANCE STATEMENT OF EASTLAND NETWORK LIMITED FOR THE ASSESSMENT PERIOD ENDED ON 31 MARCH 2013

The Auditor-General is the auditor of Eastland Network Limited (the company). The Auditor-General has appointed me, Graham Naylor, using the staff and resources of Deloitte, to provide an opinion, on her behalf, on the company's Annual Compliance Statement for the assessment period ended on 31 March 2013 on pages 3 to 8 and 13 to 22 regarding compliance with the Electricity Distribution Default Price-Quality Path Determination 2010.

We have audited the Annual Compliance Statement in respect of the default price-quality path prepared by the company for the assessment period ended on 31 March 2013 and dated 29 May 2013 for the purposes of clause 11 of the Electricity Distribution Default Price-Quality Path Determination 2010 (the Determination).

Directors' Responsibilities

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, whether due to fraud or error.

Auditor's Responsibilities

Our responsibility is to express an opinion on the Annual Compliance Statement based on our audit. We conducted our audit in accordance with the International Standards on Auditing, International Standards on Auditing (New Zealand) and the New Zealand Institute of Chartered Accountants Standard on Assurance Engagements 3100: *Compliance Engagements*. Those standards require that we comply with ethical and quality control requirements and plan and perform the audit to obtain reasonable assurance about whether the Annual Compliance Statement has been prepared in accordance with the Determination and is free from material misstatement.

An audit involves performing procedures to obtain audit 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. In making those risk assessments, the auditor considers internal control relevant to the entity'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 entity's internal control.

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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 5 and 13 to 20 of the Annual Compliance Statement.

In relation to the SAIDI and SAIFI statistics for the Reference Period and the Assessment Period ended on 31 March 2013, 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 4, 6 to 8 and 21 to 22 of the Annual Compliance Statement.

Our audit also included assessment of the significant estimates and judgements, if any, made by the company in the preparation of the Annual Compliance Statement and whether adequate information has been disclosed in accordance with clause 11.1(b) of the Determination.

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

Limitations and Use of this Independent Auditor's Report

This independent auditor's report has been prepared solely for the Directors of Eastland Network Limited and the Commissioners of the New Zealand Commerce Commission in accordance with the Determination. We disclaim any assumption of responsibility for any reliance on this report to any persons or users other than the Directors of Eastland Network Limited and the Commissioners, or for any purpose other than that for which it was prepared.

Because of the inherent limitations in 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 assessment period and the procedures performed in respect of the company's compliance with the Determination are undertaken on a test basis, our engagement cannot be relied on to detect all instances where the company may not have complied with the Determination. Our opinion has been formed on the above basis.

Independence

We have no relationship with, or interests in the company other than in our capacities as auditors of the Annual Financial Statements and auditors pursuant to the Electricity Distribution (Information Disclosure Requirements) 2008 on behalf of the Auditor-General.

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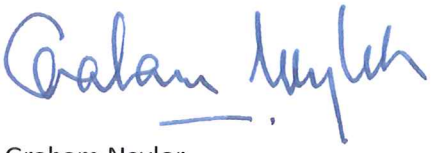
Opinion

In our opinion, the Annual Compliance Statement of Eastland Network Limited for the Assessment Period ended on 31 March 2013, has been prepared, in all material respects, in accordance with the Determination.

Our audit was completed on 29 May 2013 and our opinion is expressed as at that date.



Graham Naylor
Deloitte
On behalf of the Auditor-General
Hamilton, New Zealand

This audit report relates to the electronic publication of the annual compliance statement prepared under the Electricity Distribution Default Price-Quality Path Determination 2010 (the "annual compliance statement") of Eastland Network Limited (the company) for the assessment period ended on 31 March 2013. We have not been engaged to report on the integrity of any website on which the annual compliance statement has been published. We accept no responsibility for any changes that may have occurred to the annual compliance statement since it was initially approved and published. This audit report refers only to the annual compliance statement named above. If readers of this audit report are concerned with the inherent risks arising from electronic data communication they should refer to the original published hard copy of the annual compliance statement and related audit report dated 29 May 2013 to confirm the information included in the annual compliance statement published on this website. Legislation in New Zealand governing the preparation and dissemination of financial information may differ from legislation in other jurisdictions.

6 Directors' certificate

DIRECTORS' CERTIFICATE ON ANNUAL COMPLIANCE STATEMENT

We, Nelson Cull and Roger Taylor, 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 2010 are true and accurate.

Nelson Cull

Roger Taylor

29 May 2013

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.

7 Price Path Threshold Supporting Calculations

7.1 Notional Revenue for the Assessment Period

Notional revenue (NR_{2013}) for the period from 1 April 2012 to 31 March 2013 is calculated in accordance with the following formula:

$$NR_{2013} = \Sigma P_{i,2013} Q_{i,2011} - K_{2013}$$

Definitions:

$P_{i,2013}$ = The Eastland Network prices that applied during the Assessment Period 1 April 2012 to 31 March 2013.

$Q_{i,2011}$ = The Eastland Network quantities that applied for the pricing period 1 April 2010 to 31 March 2011.

K_{2013} = the sum of all pass-through costs for the period of 1 April 2012 to 31 March 2013.

The calculation can be shown as follows:

$\Sigma P_{i,2013} Q_{i,2011}$	Line Charge Revenue	$31,656,003
	TOTAL	**$31,656,003**
K_{2013}	Transpower Charges	$7,884,769
	Avoided Transmission	$2,628,777
	Territorial Rates	$173,993
	Commerce Act and EA Levies	$102,984
	TOTAL	**$10,790,523**
Notional Revenue (NR_{2013})		$20,865,480

7.2 Allowable Notional Revenue for the Assessment Period

The allowable notional revenue (R_{2013}) for the period from 1 April 2012 to 31 March 2013 is calculated in accordance with the following formula:

$$R_{2013} = ((\Sigma P_{i,2012} Q_{i,2011} - K_{2012}) + (R_{2012} - NR_{2012})) \times ((1+\Delta CPI_{2013}) \times (1-X))$$

Definitions:

$P_{i,2012}$ = The Eastland Network prices that applied on 31 March 2012.

$Q_{i,2011}$ = The Eastland Network quantities that applied for the pricing period 1 April 2010 to 31 March 2011.

K_{2012} = The sum of all pass-through costs for the period of 1 April 2011 to 31 March 2012 and as shown in the statement for that Period.

R_{2012} = The Allowable Notional Revenue for the period of 1 April 2011 to 31 March 2012 and as shown in the statement for that Period.

NR_{2012} = The Notional Revenue for the period of 1 April 2011 to 31 March 2012 and as shown in the statement for that Period.

$$\Delta CPI_{2013} = \frac{CPI_{Dec,\ 2010} + CPI_{Mar,\ 2011} + CPI_{Jun,\ 2011} + CPI_{Sep,\ 2011}}{CPI_{Dec,\ 2009} + CPI_{Mar,\ 2010} + CPI_{Jun,\ 2010} + CPI_{Sep,\ 2010}} - 1$$

$$= \frac{(\ 1137 + 1146 + 1157 + 1162\ )}{(\ 1093 + 1097 + 1099 + 1111\ )} - 1$$

$$= 0.0459$$

X = 0%

The calculation can be shown as follows:

$\Sigma P_{i,2012}Q_{i,2011}$	Line Charge Revenue	$30,295,835
	TOTAL	**$30,295,835**
K_{2012}	Transpower Charges	$6,749,691
	Avoided Transmission	$2,814,650
	Territorial Rates	$147,286
	EA Levies	$93,578
	TOTAL	**$9,805,205**
R_{2012}-NR_{2012}	Allowable Notional Revenue (R_{2012})	$21,084,516
	Notional Revenue (NR_{2012})	$20,397,549
	TOTAL	**$686,967**
$((\Sigma P_{i,2012}Q_{i,2011} - K_{2012}+(R_{2012}-NR_{2012}))$		$21,177,597
$((1+\Delta CPI_{2013}) \times (1-X))$		**1.0459**
Allowable Notional Revenue (R_{2013})		**$22,149,841**

7.2.1 Pass through cost variation between forecast and actual

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 was as follows:

Pass through cost	Forecast	Actual	Difference
Transpower Charges	$7,902,270	$7,884,769	($17,501)
Avoided Transmission	$2,799,791	$2,628,777	($171,014)
Territorial Rates	$155,000	$173,993	$18,993
Commerce Act and EA Levies	$108,000	$102,984	($5,016)
Total	**$10,965,061**	**$10,790,523**	**($174,538)**

Variances are explained as follows:

- **Transpower Charges** – Forecast figures used the amounts notified by Transpower in their Transmission charge notice, consequently actual figures are very close to those budgeted.
- **Avoided Transmission** – Since the original forecast was prepared in 2011 ENL have reviewed their methodology to provide alignment with the 2012 Regulations and applied it retrospectively. This has resulted in slightly lower actual costs than originally forecast.

Certified for Recovery

7.3 Supporting Tariffs, Volumes and Notional Revenue

P_{2012}

				Non-TOU Metering				TOU Metering			
				Fixed	UN	CN	NT	EP	MP	OP	NR
Domestic	High Density		PDH0030	0.1500	0.1341	0.0697	0.0134	-	-	-	-
	Low Density		PDL0030	0.1500	0.1564	0.0845	0.0157	-	-	-	-
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	0.3010	0.1263	0.0822	0.0129	-	-	-	-
		Assessed Demand (2.5 to 30kVA)	PNH0030	1.8065	0.0948	0.0616	0.0129	-	-	-	-
		Assessed Demand (31 to 100kVA)	PNH0100	5.4798	0.0620	0.0403	0.0129	-	-	-	-
		Assessed Demand (101 to 300kVA)	PNH0300	10.5381	0.0505	0.0328	0.0129	-	-	-	-
		Assessed Demand (201 to 300kVA)	PTH0300	16.5598	-	-	-	0.0471	0.0447	0.0344	0.0155
		Assessed Demand (301 to 500kVA)	PNH0500	19.5706	-	-	-	0.0471	0.0447	0.0344	0.0155
		Assessed Demand (501 to 1000kVA)	PNH1000	30.1086	-	-	-	0.0471	0.0447	0.0344	0.0155
		Assessed Demand (1001 to 4500kVA)	PNH4500	69.2499	-	-	-	0.0471	0.0447	0.0344	0.0155
		Assessed Demand (4501 to 6500kVA)	PNH6500	105.3803	-	-	-	0.0471	0.0447	0.0344	0.0155
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	0.3010	0.1458	0.1020	0.0148	-	-	-	-
		Assessed Demand (2.5 to 30kVA)	PNL0030	1.8065	0.1094	0.0710	0.0148	-	-	-	-
		Assessed Demand (31 to 100kVA)	PNL0100	5.4798	0.0729	0.0437	0.0148	-	-	-	-
		Assessed Demand (101 to 300kVA)	PNL0300	10.5381	0.0583	0.0350	0.0148	-	-	-	-
		Assessed Demand (201 to 300kVA)	PTL0300	16.5598	-	-	-	0.0494	0.0469	0.0361	0.0163
		Assessed Demand (301 to 500kVA)	PNL0500	19.5706	-	-	-	0.0494	0.0469	0.0361	0.0163
		Assessed Demand (501 to 1000kVA)	PNL1000	30.1086	-	-	-	0.0494	0.0469	0.0361	0.0163
		Assessed Demand (1001 to 4500kVA)	PNL4500	69.2499	-	-	-	0.0494	0.0469	0.0361	0.0163
		Assessed Demand (4501 to 6500kVA)	PNL6500	105.3803	-	-	-	0.0494	0.0469	0.0361	0.0163
Generation		Assessed Capacity (301 to 500kVA)	PNG0500	15.1152	-	-	-	-	-	-	-
		Assessed Capacity (501 to 1000kVA)	PNG1000	23.2541	-	-	-	-	-	-	-
		Assessed Capacity (1001 to 4500kVA)	PNG4500	53.4845	-	-	-	-	-	-	-
		Assessed Capacity (4501 to 6500kVA)	PNG6500	81.3895	-	-	-	-	-	-	-

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P_{2013}

				Non-TOU Metering				TOU Metering			
				Fixed	UN	CN	NT	EP	MP	OP	NR
Domestic	High Density		PDH0030	0.1500	0.1402	0.0729	0.0183	-	-	-	-
	Low Density		PDL0030	0.1500	0.1639	0.0886	0.0213	-	-	-	-
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	0.3600	0.1281	0.0833	0.0160	-	-	-	-
		Assessed Demand (2.5 to 30kVA)	PNH0030	2.1595	0.0923	0.0600	0.0160	-	-	-	-
		Assessed Demand (31 to 100kVA)	PNH0100	6.2985	0.0628	0.0408	0.0160	-	-	-	-
		Assessed Demand (101 to 300kVA)	PNH0300	11.8772	0.0513	0.0333	0.0160	-	-	-	-
		Assessed Demand (201 to 300kVA)	PTH0300	19.7952	-	-	-	0.0476	0.0445	0.0350	0.0157
		Assessed Demand (301 to 500kVA)	PNH0500	22.3146	-	-	-	0.0476	0.0445	0.0350	0.0157
		Assessed Demand (501 to 1000kVA)	PNH1000	34.5516	-	-	-	0.0476	0.0445	0.0350	0.0157
		Assessed Demand (1001 to 4500kVA)	PNH4500	86.3790	-	-	-	0.0476	0.0445	0.0350	0.0157
		Assessed Demand (4501 to 6500kVA)	PNH6500	131.4580	-	-	-	0.0476	0.0445	0.0350	0.0157
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	0.3600	0.1479	0.0961	0.0185	-	-	-	-
		Assessed Demand (2.5 to 30kVA)	PNL0030	2.1595	0.0961	0.0625	0.0185	-	-	-	-
		Assessed Demand (31 to 100kVA)	PNL0100	6.2985	0.0732	0.0476	0.0185	-	-	-	-
		Assessed Demand (101 to 300kVA)	PNL0300	11.8772	0.0584	0.0380	0.0185	-	-	-	-
		Assessed Demand (201 to 300kVA)	PTL0300	19.7952	-	-	-	0.0499	0.0467	0.0367	0.0165
		Assessed Demand (301 to 500kVA)	PNL0500	22.3146	-	-	-	0.0499	0.0467	0.0367	0.0165
		Assessed Demand (501 to 1000kVA)	PNL1000	34.5516	-	-	-	0.0499	0.0467	0.0367	0.0165
		Assessed Demand (1001 to 4500kVA)	PNL4500	86.3790	-	-	-	0.0499	0.0467	0.0367	0.0165
		Assessed Demand (4501 to 6500kVA)	PNL6500	131.4580	-	-	-	0.0499	0.0467	0.0367	0.0165
Generation		Assessed Capacity (301 to 500kVA)	PNG0500	16.7935	-	-	-	-	-	-	-
		Assessed Capacity (501 to 1000kVA)	PNG1000	26.0028	-	-	-	-	-	-	-
		Assessed Capacity (1001 to 4500kVA)	PNG4500	65.0070	-	-	-	-	-	-	-
		Assessed Capacity (4501 to 6500kVA)	PNG6500	98.9325	-	-	-	-	-	-	-

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Q2011 (Quantities for Year Ended 31 March 2011)

					Non-TOU Metering			TOU Metering				
				ICPs	UN	CN	NT	EP	MP	OP	NR	Total kWh
Domestic	High Density		PDH0030	13,592	59,524,408	25,818,622	39,793	-	-	-	-	85,382,823
	Low Density		PDL0030	6,159	28,870,063	10,964,368	52,545	-	-	-	-	39,886,976
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	103	511,942	-	-	-	-	-	-	511,942
		Assessed Demand (2.5 to 30kVA)	PNH0030	1,708	22,335,663	923,295	-	-	-	-	-	23,258,958
		Assessed Demand (31 to 100kVA)	PNH0100	259	21,260,111	464,144	27,768	-	-	-	-	21,752,023
		Assessed Demand (101 to 300kVA)	PNH0300	54	13,039,650	15,963	6,399	-	-	-	-	13,062,012
		Assessed Demand (201 to 300kVA)	PTH0300	-	-	-	-	-	-	-	-	-
		Assessed Demand (301 to 500kVA)	PNH0500	19	-	-	-	1,469,176	2,212,197	2,922,736	1,972,041	8,576,150
		Assessed Demand (501 to 1000kVA)	PNH1000	21	-	-	-	4,377,368	6,470,587	8,449,658	7,304,318	26,601,931
		Assessed Demand (1001 to 4500kVA)	PNH4500	1	-	-	-	851,437	1,065,424	1,513,548	1,634,762	5,065,171
		Assessed Demand (4501 to 6500kVA)	PNH6500	1	-	-	-	3,584,340	4,834,517	6,633,847	6,785,040	21,837,744
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	105	259,510	-	-	-	-	-	-	259,510
		Assessed Demand (2.5 to 30kVA)	PNL0030	3,391	16,614,241	1,375,961	109,660	-	-	-	-	18,099,862
		Assessed Demand (31 to 100kVA)	PNL0100	77	4,257,363	156,860	-	-	-	-	-	4,414,223
		Assessed Demand (101 to 300kVA)	PNL0300	11	1,255,533	454	-	-	-	-	-	1,255,987
		Assessed Demand (201 to 300kVA)	PTL0300	-	-	-	-	-	-	-	-	-
		Assessed Demand (301 to 500kVA)	PNL0500	3	-	-	-	209,568	355,307	464,011	342,057	1,370,943
		Assessed Demand (501 to 1000kVA)	PNL1000	1	-	-	-	114,350	175,962	218,407	143,380	652,099
		Assessed Demand (1001 to 4500kVA)	PNL4500	1	-	-	-	1,605,374	2,550,361	3,186,423	2,739,361	10,081,519
		Assessed Demand (4501 to 6500kVA)	PNL6500	-	-	-	-	-	-	-	-	-
Generation		Assessed Capacity (301 to 500kVA)	PNG0500	-	-	-	-	-	-	-	-	-
		Assessed Capacity (501 to 1000kVA)	PNG1000	6	-	-	-	-	-	-	-	-
		Assessed Capacity (1001 to 4500kVA)	PNG4500	1	-	-	-	-	-	-	-	-
		Assessed Capacity (4501 to 6500kVA)	PNG6500	1	-	-	-	-	-	-	-	-
				25,514	167,928,484	39,719,667	236,165	12,211,613	17,664,355	23,388,630	20,920,959	282,069,873

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P2012Q2011

					Non-TOU Metering			TOU Metering				
				Fixed	UN	CN	NT	EP	MP	OP	NR	Total
Domestic	High Density Low Density		PDH0030	744,162	7,982,223	1,799,558	533	-	-	-	-	10,526,476
			PDL0030	337,205	4,515,278	926,489	825	-	-	-	-	5,779,797
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	11,316	64,658	-	-	-	-	-	-	75,974
		Assessed Demand (2.5 to 30kVA)	PNH0030	1,126,208	2,117,421	56,875	-	-	-	-	-	3,300,504
		Assessed Demand (31 to 100kVA)	PNH0100	518,033	1,318,127	18,705	358	-	-	-	-	1,855,223
		Assessed Demand (101 to 300kVA)	PNH0300	207,706	658,502	524	83	-	-	-	-	866,815
		Assessed Demand (201 to 300kVA)	PTH0300	-	-	-	-	-	-	-	-	-
		Assessed Demand (301 to 500kVA)	PNH0500	135,722	-	-	-	69,198	98,885	100,542	30,567	434,914
		Assessed Demand (501 to 1000kVA)	PNH1000	230,782	-	-	-	206,174	289,235	290,668	113,217	1,130,076
		Assessed Demand (1001 to 4500kVA)	PNH4500	25,276	-	-	-	40,103	47,624	52,066	25,339	190,408
		Assessed Demand (4501 to 6500kVA)	PNH6500	38,464	-	-	-	168,822	216,103	228,204	105,168	756,761
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	11,536	37,837	-	-	-	-	-	-	49,373
		Assessed Demand (2.5 to 30kVA)	PNL0030	2,235,932	1,817,598	97,693	1,623	-	-	-	-	4,152,846
		Assessed Demand (31 to 100kVA)	PNL0100	154,010	310,362	6,855	-	-	-	-	-	471,227
		Assessed Demand (101 to 300kVA)	PNL0300	42,310	73,198	16	-	-	-	-	-	115,524
		Assessed Demand (201 to 300kVA)	PTL0300	-	-	-	-	-	-	-	-	-
		Assessed Demand (301 to 500kVA)	PNL0500	21,430	-	-	-	10,353	16,664	16,751	5,576	70,774
		Assessed Demand (501 to 1000kVA)	PNL1000	10,990	-	-	-	5,649	8,253	7,884	2,337	35,113
		Assessed Demand (1001 to 4500kVA)	PNL4500	25,276	-	-	-	79,305	119,612	115,030	44,652	383,875
		Assessed Demand (4501 to 6500kVA)	PNL6500	-	-	-	-	-	-	-	-	-
Generation		Assessed Capacity (301 to 500kVA)	PNG0500	-	-	-	-	-	-	-	-	-
		Assessed Capacity (501 to 1000kVA)	PNG1000	50,926	-	-	-	-	-	-	-	50,926
		Assessed Capacity (1001 to 4500kVA)	PNG4500	19,522	-	-	-	-	-	-	-	19,522
		Assessed Capacity (4501 to 6500kVA)	PNG6500	29,707	-	-	-	-	-	-	-	29,707
				5,976,513	18,895,204	2,906,715	3,422	579,604	796,376	811,145	326,856	30,295,835

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P2013Q2011

					Non-TOU Metering			TOU Metering				
				Fixed	UN	CN	NT	EP	MP	OP	NR	Total
Domestic	High Density		PDH0030	744,162	8,345,322	1,882,178	728	-	-	-	-	10,972,390
	Low Density		PDL0030	337,205	4,731,803	971,443	1,119	-	-	-	-	6,041,570
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	13,534	65,580	-	-	-	-	-	-	79,114
		Assessed Demand (2.5 to 30kVA)	PNH0030	1,346,275	2,061,582	55,398	-	-	-	-	-	3,463,255
		Assessed Demand (31 to 100kVA)	PNH0100	595,429	1,335,135	18,937	444	-	-	-	-	1,949,945
		Assessed Demand (101 to 300kVA)	PNH0300	234,100	668,934	532	102	-	-	-	-	903,668
		Assessed Demand (201 to 300kVA)	PTH0300	-	-	-	-	-	-	-	-	-
		Assessed Demand (301 to 500kVA)	PNH0500	154,752	-	-	-	69,933	98,443	102,296	30,961	456,385
		Assessed Demand (501 to 1000kVA)	PNH1000	264,838	-	-	-	208,363	287,941	295,738	114,678	1,171,558
		Assessed Demand (1001 to 4500kVA)	PNH4500	31,528	-	-	-	40,528	47,411	52,974	25,666	198,107
		Assessed Demand (4501 to 6500kVA)	PNH6500	47,982	-	-	-	170,615	215,136	232,185	106,525	772,443
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	13,797	38,382	-	-	-	-	-	-	52,179
		Assessed Demand (2.5 to 30kVA)	PNL0030	2,672,846	1,596,629	85,998	2,029	-	-	-	-	4,357,502
		Assessed Demand (31 to 100kVA)	PNL0100	177,019	311,639	7,467	-	-	-	-	-	496,125
		Assessed Demand (101 to 300kVA)	PNL0300	47,687	73,323	17	-	-	-	-	-	121,027
		Assessed Demand (201 to 300kVA)	PTL0300	-	-	-	-	-	-	-	-	-
		Assessed Demand (301 to 500kVA)	PNL0500	24,434	-	-	-	10,457	16,593	17,029	5,644	74,157
		Assessed Demand (501 to 1000kVA)	PNL1000	12,611	-	-	-	5,706	8,217	8,016	2,366	36,916
		Assessed Demand (1001 to 4500kVA)	PNL4500	31,528	-	-	-	80,108	119,102	116,942	45,199	392,879
		Assessed Demand (4501 to 6500kVA)	PNL6500	-	-	-	-	-	-	-	-	-
Generation		Assessed Capacity (301 to 500kVA)	PNG0500	-	-	-	-	-	-	-	-	-
		Assessed Capacity (501 to 1000kVA)	PNG1000	56,946	-	-	-	-	-	-	-	56,946
		Assessed Capacity (1001 to 4500kVA)	PNG4500	23,728	-	-	-	-	-	-	-	23,728
		Assessed Capacity (4501 to 6500kVA)	PNG6500	36,110	-	-	-	-	-	-	-	36,110
				6,866,511	19,228,329	3,021,970	4,422	585,710	792,843	825,180	331,039	31,656,004

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8 Quality Threshold – Supporting Statistics

8.1 Compliance with Quality Standards

The Assessment Period Quality Thresholds have been calculated in accordance with

The Commerce Act (Electricity Thresholds Notice) 2004 and Schedule 3 of the Electricity Distribution Services Default Price-Quality Path Determination 2010.

8.1.1 SAIDI

The 2011 and 2012 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

8.1.2 SAIFI

The 2011 and 2012 SAIFI Reliability Limits were determined as follows:

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

where:

μ_{SAIFI} = 3.50

δ_{SAIFI} = 0.76

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

8.2 Reliability Limit Factors

These factors were determined in accordance with Schedule 3 of the Determination and were used to calculate the 2013 Reliability Limits.

8.2.1 Boundary Values

The SAIDI boundary value was determined as follows:

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

where:

$$\alpha_{SAIDI} = -0.86$$
$$\beta_{SAIDI} = 1.60$$

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

The SAIFI boundary value was determined as follows:

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

where:

$$\alpha_{SAIFI} = -5.31$$
$$\beta_{SAIFI} = 1.66$$

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

8.2.2 Reliability Limits

The SAIDI Reliability Limit was determined as follows:

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

where:

$$\mu_{SAIDI} = 250.29$$
$$\delta_{SAIDI} = 52.09$$

$$\boldsymbol{SAIDI_{LIMIT}} = \mathbf{302.38}$$

The SAIFI Reliability Limit was determined as follows:

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

where:

$$\mu_{SAIFI} = 3.50$$
$$\delta_{SAIFI} = 0.76$$

$$\boldsymbol{SAIFI_{LIMIT}} = \mathbf{4.26}$$