



Commerce Act (Electricity Distribution Default  
Price-Quality Path) Determination 2010

Annual Compliance Statement

For the assessment period:  
1 April 2010 to 31 March 2011

29 June 2011

# Contents

1	Summary of Compliance .....	3
2	Introduction .....	4
3	Price path .....	5
3.1	Introduction .....	5
3.2	Compliance with price path threshold .....	5
3.3	Restructuring of Prices.....	5
4	Quality standards.....	6
4.1	Introduction .....	6
4.2	Compliance with quality standards .....	6
4.2.1	SAIDI.....	6
4.2.2	SAIFI .....	6
4.3	Annual reliability assessment.....	7
4.3.1	SAIDI.....	7
4.3.2	SAIFI .....	7
4.4	Policies and procedures for recording SAIDI and SAIFI .....	7
4.4.1	Procedures.....	7
4.4.2	Policies .....	8
5	Auditor’s Report.....	9
6	Directors’ certificate .....	11
7	Price Path Threshold .....	12
7.1	Supporting Calculations for Price Path Threshold .....	12
7.1.1	Notional Revenue for the Assessment Period .....	12
7.1.2	Allowable Notional Revenue for the Assessment Period .....	13
7.1.3	Pass through cost variation between forecast and actual.....	14
7.2	Supporting Tariffs, Volumes and Notional Revenue.....	15
8	Quality Threshold – Supporting Statistics .....	20
8.1	Compliance with Quality Standards .....	20
8.1.1	SAIDI.....	20
8.1.2	SAIFI .....	20
8.2	Reliability Limit Factors.....	21
8.2.1	Boundary Values.....	21
8.2.2	Reliability Limits .....	21

## 1 Summary of Compliance

Test	Result
Price path threshold	Compliant
Quality threshold	Compliant
Auditor's report	Compliant

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## **2 Introduction**

This Threshold Compliance Statement is submitted by Eastland Network Ltd pursuant to the Commerce Act (Electricity Distribution 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

This statement therefore provides threshold compliance information applicable to the Assessment Date of 31 March 2011 with the Assessment Period being 1 April 2010 to 31 March 2011.

### 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 price path threshold

Eastland Network complies with clause 8.4 of the Determination as its notional revenue at no time during the Assessment Period exceeded the allowable notional revenue for the Assessment Period:

Defined Calculation Methodology:	Notional revenue for the Assessment Period	At no time is to exceed	The allowable notional for the Assessment Period	Result
	NR <sub>2011</sub>		R <sub>2011</sub>	
Eastland Network’s Result	\$19,578,332	<	\$20,276,578	Compliant

- **NR<sub>2011</sub> – Notional revenue from 1 April 2010 to 31 March 2011**

Eastland Network did not change or restructure any prices during the Assessment Period, therefore the prices that applied on 1 April 2010 applied throughout the entire Assessment Period. Notional revenue for the assessment period is copied from 7.1.1 below.

- **R<sub>2011</sub> – Allowable notional revenue from 1 April 2010 to 31 March 2011**

This was calculated in accordance with the method for determining the allowable notional revenue for the First Assessment Period as described in clause 8.5 of the Determination. Allowable notional revenue is copied from 7.1.2 below.

#### 3.3 Restructuring of Prices

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

## 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

Eastland Network complied with clause 9.1 of the Determination as during the First Assessment Period it complied with those annual reliability assessments for the two immediately preceding extant Assessment Periods (clause 9.1(b)).

#### 4.2.1 SAIDI

The SAIDI quality threshold is as follows:

Assessment Period	SAIDI for the Assessment Period	Is not to exceed	The five year average SAIDI to 31 March 2003	Result
2009	243.09	<	377.59	Compliant
2010	314.94	<		

SAIDI figures for the Assessment Periods have been taken from Eastland Network's Threshold Compliance Statements for that particular Assessment Period and are shown in 8.1.1 below.

#### 4.2.2 SAIFI

The SAIFI quality threshold is as follows:

Assessment Period	SAIFI for the Assessment Period	Is not to exceed	The five year average SAIFI to 31 March 2003	Result
2009	3.39	<	4.08	Compliant
2010	3.68	<		

SAIFI figures for the Assessment Periods have been taken from Eastland Network's Threshold Compliance Statements for that particular Assessment Period and are shown in 8.1.2 below.

### **4.3 Annual reliability assessment**

Other than during the First Assessment Period, the Assessed Values for an Assessment Period must not exceed the EDB's Reliability Limits for that Assessment Period. Therefore the figures shown below are included in accordance with clause 11 of the Determination and do not affect Eastland Network's compliance with the quality standards during the First Assessment Period.

The factors that are used in the determination of the Reliability Limits are shown in 8.2 below.

#### **4.3.1 SAIDI**

The SAIDI Assessment Values and Reliability Limits for the Assessment Period are as follows:

- $SAIDI_{ASSESS,2011} = 334.00$
- $SAIDI_{LIMIT} = 302.38$

#### **4.3.2 SAIFI**

The SAIFI Assessment Values and Reliability Limits for the Assessment Period are as follows:

- $SAIFI_{ASSESS,2011} = 3.49$
- $SAIFI_{LIMIT} = 4.26$

### **4.4 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.

#### **4.4.1 Procedures**

##### **Connection Conductivity:**

- Individual network connections are linked to a specific distribution transformer via GIS and ICP Billing system data outputs.
- Connection information and network conductivity 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 conductivity 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

#### **4.4.2 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 Conductivity, Interruption data capture and reporting processes to determine the accuracy and compliance of deliverables.



## INDEPENDENT AUDITOR'S REPORT

### TO THE READERS OF THE ANNUAL COMPLIANCE STATEMENT OF EASTLAND NETWORK LIMITED FOR THE ASSESSMENT PERIOD ENDED ON 31 MARCH 2011

The Auditor-General is the auditor of Eastland Network Limited (the company). The Auditor-General has appointed me, Bruno Dente, 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 2011 on pages 3 to 8 and 12 to 21 regarding compliance with the Commerce Act (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 2011 and dated 29 June 2011 for the purposes of clause 11 of the Commerce Act (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*. This standard requires 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.

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 12 to 19 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 2011, 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 20 to 21 of the Annual Compliance Statement.

Our audit also included assessment of the significant estimates and judgments, 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 capacity as auditor.

## **Opinion**

In our opinion, the Annual Compliance Statement of Eastland Network Limited for the Assessment Period ended on 31 March 2011, has been prepared, in all material respects, in accordance with the Determination.

Our audit was completed on 29 June 2011 and our opinion is expressed as at that date.



Bruno Dente  
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 Commerce Act (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 2011.

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 June 2011 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, John Mcfayden Rae and Roger Neil 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 Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010 are true and accurate.



John Mcfayden Rae



Roger Neil Taylor



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

### 7.1 Supporting Calculations for Price Path Threshold

#### 7.1.1 Notional Revenue for the Assessment Period

Notional revenue for the period from 1 April 2010 to 31 March 2011 is calculated in accordance with the following formula:

$$NR_{2011} = \sum P_{i,2011} Q_{i,2009} - K_{2011}$$

#### Definitions:

- $P_{i,2011}$  = The Eastland Network prices that applied during the Assessment Period.
- $Q_{i,2009}$  = The Eastland Network quantities that applied for the pricing period 1 April 2008 to 31 March 2009. As Eastland Network has restructured and introduced new prices since 31 March 2009, these have been allocated into the 31 March 2011 tariff format by using apportionment factors derived from actual quantities and ICPs mappings.
- $K_{2011}$  = the sum of all pass-through costs for the period of 1 April 2010 to 31 March 2011.

The calculation can be shown as follows:

$\sum P_{i,2011} Q_{i,2009}$	Line Charge Revenue	\$29,032,393
	Less Other Non-Contestable Revenue	\$76,967
	<b>TOTAL</b>	<b>\$28,955,426</b>
$K_{2011}$	Transpower Charges	\$6,733,846
	Avoided Transmission	\$2,397,744
	Territorial Rates	\$141,273
	Commerce Act and EA Levies	\$104,231
	<b>TOTAL</b>	<b>\$9,377,094</b>
<b>Notional Revenue (NR<sub>2011</sub>)</b>		<b>\$19,578,332</b>

The supporting tariffs and volumes are given in 7.2 Supporting Tariffs, Volumes and Notional Revenue below.

### 7.1.2 Allowable Notional Revenue for the Assessment Period

The allowable notional revenue for the period from 1 April 2010 to 31 March 2011 (being the First Assessment Period) is calculated in accordance with the following formula:

$$R_{2011} = (\sum P_{i,2010} Q_{i,2009} - K_{2010}) \times ((1 + \Delta CPI_{2011}) \times (1 - X))$$

#### Definitions:

$P_{i,2010}$  = The Eastland Network prices that applied on 31 March 2010.

$Q_{i,2009}$  = The Eastland Network quantities that applied for the pricing period 1 April 2008 to 31 March 2009. As Eastland Network has restructured and introduced new prices since 31 March 2009, these have been allocated into the 31 March 2011 tariff format by using apportionment factors derived from actual quantities and ICPs mappings.

$K_{2010}$  = the sum of all pass-through costs for the period of 1 April 2009 to 31 March 2010 and as shown in the statement for that Period.

$$\begin{aligned} \Delta CPI_{2010} &= \frac{CPI_{Dec, 2008} + CPI_{Mar, 2009} + CPI_{Jun, 2009} + CPI_{Sep, 2009}}{CPI_{Dec, 2007} + CPI_{Mar, 2008} + CPI_{Jun, 2008} + CPI_{Sep, 2008}} - 1 \\ &= \frac{(1072+1075+1081+1095)}{(1037+1044+1061+1077)} - 1 \\ &= 0.0247 \end{aligned}$$

$X$  = X factor assigned to Eastland Network, which is 0%

The calculation can be shown as follows:

$\sum P_{i,2010} Q_{i,2009}$	Line Charge Revenue	\$29,032,393
	Less Other Non-Contestable Revenue	\$76,967
	<b>TOTAL</b>	<b>\$28,955,426</b>
$K_{2010}$	Transpower Charges	\$6,646,423
	Avoided Transmission	\$2,370,991
	Territorial Rates	\$108,516
	EA Levies	\$40,719
	<b>TOTAL</b>	<b>\$9,166,649</b>
$\sum P_{i,2010} Q_{i,2009} - K_{2010}$		<b>\$19,788,777</b>
$((1 + \Delta CPI_{2011}) \times (1 - X))$		<b>1.0247</b>
<b>Allowable Notional Revenue (<math>R_{2011}</math>)</b>		<b>\$20,276,578</b>

### 7.1.3 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 forecast pass through costs that were used when Eastland Network set prices and the actual amounts during the Assessment Period.

The forecast and actual pass through costs were as follows:

<b>Pass through cost</b>	<b>Forecast</b>	<b>Actual</b>	<b>Difference</b>
Transpower Charges	\$6,374,036	\$6,733,846	\$359,810
Avoided Transmission	\$2,374,031	\$2,397,744	\$23,713
Territorial Rates	\$83,820	\$141,273	\$57,453
Commerce Act and EA Levies	\$44,541	\$104,231	\$59,690
<b>Total</b>	<b>\$8,876,428</b>	<b>\$9,377,094</b>	<b>\$500,666</b>

Variances are explained as follows:

- **Transpower Charges** – Forecast figures used the amounts notified by Transpower in their Transmission charge notice of 1 December 2009. Due to an oversight, the new investment charge stated in this notification of \$341,356 was omitted from the pricing design.
- **Avoided Transmission** – When pricing design and budgeting was undertaken in November 2009, an estimate of Avoided Transmission charges was made using the forecast position for the 2010 financial year with a CPI uplift applied. Subsequently actual figures are very close to those budgeted.
- **Territorial Rates** – When pricing design and budgeting was undertaken in November 2009, an estimate of the Rates for the Assessment period was made using the forecast rates position for the 2010 financial year with a CPI uplift applied. No better rating information was available from Council bodies at the time. Subsequent rating revaluations and changes to Council rating policy have led to an increase in the overall rates pass through cost.
- **Commerce Act and EA Levies** – When pricing design and budgeting was undertaken in November 2009, uncertainty remained over the treatment of EA and Commerce Act levies and their inclusion in the Pass Through Costs. Therefore a conservative position was adopted using the 2010 forecast position with a CPI uplift applied.

## 7.2 Supporting Tariffs, Volumes and Notional Revenue

P<sub>2010</sub>

Note:

1. All prices exclude GST

2. Prices are those which applied 31 March 2010

		Tariff Code	Daily Charge \$/day	Non-TOU Metering			TOU Metering				
				Uncontrolled \$/kWh	Controlled \$/kWh	Night \$/kWh	Evening Peak \$/kWh	Morning Peak \$/kWh	Off Peak \$/kWh	Night \$/kWh	
Domestic	High Density	PDH0030	0.1500	0.1315	0.0684	0.0132					
	Low Density	PDL0030	0.1500	0.1534	0.0829	0.0153					
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	0.2596	0.1285	0.0836	0.0131				
		Assessed Demand (2.5 to 30kVA)	PNH0030	1.5573	0.0964	0.0627	0.0131				
		Assessed Demand (31 to 100kVA)	PNH0100	4.7239	0.0630	0.0409	0.0131				
		Assessed Demand (101 to 300kVA)	PNH0300	9.0845	0.0514	0.0334	0.0131				
		Assessed Demand (301 to 500kVA)	PNH0500	16.8712				0.0479	0.0455	0.0350	0.0158
		Assessed Demand (501 to 1000kVA)	PNH1000	25.9558				0.0479	0.0455	0.0350	0.0158
		Assessed Demand (1001 to 4500kVA)	PNH4500	59.6982				0.0479	0.0455	0.0350	0.0158
	Assessed Demand (4501 to 6500kVA)	PNH6500	90.8451				0.0479	0.0455	0.0350	0.0158	
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	0.2596	0.1483	0.1038	0.0151				
		Assessed Demand (2.5 to 30kVA)	PNL0030	1.5573	0.1113	0.0723	0.0151				
		Assessed Demand (31 to 100kVA)	PNL0100	4.7239	0.0742	0.0445	0.0151				
		Assessed Demand (101 to 300kVA)	PNL0300	9.0845	0.0593	0.0356	0.0151				
		Assessed Demand (301 to 500kVA)	PNL0500	16.8712				0.0503	0.0478	0.0367	0.0166
		Assessed Demand (501 to 1000kVA)	PNL1000	25.9558				0.0503	0.0478	0.0367	0.0166
Assessed Demand (1001 to 4500kVA)		PNL4500	59.6982				0.0503	0.0478	0.0367	0.0166	
Assessed Demand (4501 to 6500kVA)	PNL6500	90.8451				0.0503	0.0478	0.0367	0.0166		
Generation	Assessed Capacity (301 to 500kVA)	PNG0500	13.0303								
	Assessed Capacity (501 to 1000kVA)	PNG1000	20.0467								
	Assessed Capacity (1001 to 4500kVA)	PNG4500	46.1074								
	Assessed Capacity (4501 to 6500kVA)	PNG6500	70.1634								

Note:

1. All prices exclude GST

		Tariff Code	Daily Charge \$/day	Non-TOU Metering			TOU Metering				
				Uncontrolled \$/kWh	Controlled \$/kWh	Night \$/kWh	Evening Peak \$/kWh	Morning Peak \$/kWh	Off Peak \$/kWh	Night \$/kWh	
Domestic	High Density	PDH0030	0.1500	0.1315	0.0684	0.0132					
	Low Density	PDL0030	0.1500	0.1534	0.0829	0.0153					
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	0.2596	0.1285	0.0836	0.0131				
		Assessed Demand (2.5 to 30kVA)	PNH0030	1.5573	0.0964	0.0627	0.0131				
		Assessed Demand (31 to 100kVA)	PNH0100	4.7239	0.0630	0.0409	0.0131				
		Assessed Demand (101 to 300kVA)	PNH0300	9.0845	0.0514	0.0334	0.0131				
		Assessed Demand (301 to 500kVA)	PNH0500	16.8712				0.0479	0.0455	0.0350	0.0158
		Assessed Demand (501 to 1000kVA)	PNH1000	25.9558				0.0479	0.0455	0.0350	0.0158
		Assessed Demand (1001 to 4500kVA)	PNH4500	59.6982				0.0479	0.0455	0.0350	0.0158
		Assessed Demand (4501 to 6500kVA)	PNH6500	90.8451				0.0479	0.0455	0.0350	0.0158
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	0.2596	0.1483	0.1038	0.0151				
		Assessed Demand (2.5 to 30kVA)	PNL0030	1.5573	0.1113	0.0723	0.0151				
		Assessed Demand (31 to 100kVA)	PNL0100	4.7239	0.0742	0.0445	0.0151				
		Assessed Demand (101 to 300kVA)	PNL0300	9.0845	0.0593	0.0356	0.0151				
		Assessed Demand (301 to 500kVA)	PNL0500	16.8712				0.0503	0.0478	0.0367	0.0166
		Assessed Demand (501 to 1000kVA)	PNL1000	25.9558				0.0503	0.0478	0.0367	0.0166
Assessed Demand (1001 to 4500kVA)		PNL4500	59.6982				0.0503	0.0478	0.0367	0.0166	
Assessed Demand (4501 to 6500kVA)		PNL6500	90.8451				0.0503	0.0478	0.0367	0.0166	
Generation	Assessed Capacity (301 to 500kVA)	PNG0500	13.0303								
	Assessed Capacity (501 to 1000kVA)	PNG1000	20.0467								
	Assessed Capacity (1001 to 4500kVA)	PNG4500	46.1074								
	Assessed Capacity (4501 to 6500kVA)	PNG6500	70.1634								



Note: 2009 quantities are shown in 2010 price codes

			Non-TOU Metering				TOU Metering				Total kWh	
	Tariff	ICPs	Uncontrolled	Controlled	Night	Evening Peak	Morning Peak	Off Peak	Night			
Domestic	High Density	PDH0030	13,505	56,454,189	25,895,268	27,008	0	0	0	0	82,376,465	
	Low Density	PDL0030	6,097	28,522,511	10,993,677	35,185	0	0	0	0	39,551,373	
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	85	422,944	0	0	0	0	0	422,944	
		Assessed Demand (2.5 to 30kVA)	PNH0030	1,662	22,662,487	930,047	0	0	0	0	23,592,534	
		Assessed Demand (31 to 100kVA)	PNH0100	246	21,511,289	410,840	0	0	0	0	21,922,129	
		Assessed Demand (101 to 300kVA)	PNH0300	48	12,850,052	21,871	0	0	0	0	12,871,923	
		Assessed Demand (301 to 500kVA)	PNH0500	20	0	0	0	1,520,266	2,251,502	2,963,918	2,076,594	8,812,280
		Assessed Demand (501 to 1000kVA)	PNH1000	18	0	0	0	4,071,893	6,296,225	8,064,065	7,016,345	25,448,528
		Assessed Demand (1001 to 4500kVA)	PNH4500	1	0	0	0	1,124,818	1,344,236	1,969,179	2,106,035	6,544,268
		Assessed Demand (4501 to 6500kVA)	PNH6500	1	0	0	0	3,080,460	4,319,740	5,723,318	5,982,158	19,105,676
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	100	249,884	0	0	0	0	0	0	249,884
		Assessed Demand (2.5 to 30kVA)	PNL0030	3,421	16,751,564	1,380,051	77,177	0	0	0	0	18,208,792
		Assessed Demand (31 to 100kVA)	PNL0100	74	4,214,214	168,750	0	0	0	0	0	4,382,964
		Assessed Demand (101 to 300kVA)	PNL0300	10	1,548,491	4,544	0	0	0	0	0	1,553,035
		Assessed Demand (301 to 500kVA)	PNL0500	3	0	0	0	253,949	390,373	510,345	380,855	1,535,522
		Assessed Demand (501 to 1000kVA)	PNL1000	1	0	0	0	84,406	163,583	198,147	181,428	627,564
	Assessed Demand (1001 to 4500kVA)	PNL4500	1	0	0	0	2,218,194	3,387,834	4,270,608	3,655,022	13,531,658	
	Assessed Demand (4501 to 6500kVA)	PNL6500	0	0	0	0	0	0	0	0	0	
Generation	Assessed Capacity (301 to 500kVA)	PNG0500	0	0	0	0	0	0	0	0	0	
	Assessed Capacity (501 to 1000kVA)	PNG1000	6	0	0	0	0	0	0	0	0	
	Assessed Capacity (1001 to 4500kVA)	PNG4500	0	0	0	0	0	0	0	0	0	
	Assessed Capacity (4501 to 6500kVA)	PNG6500	1	0	0	0	0	0	0	0	0	
			25,300	165,187,625	39,805,048	139,370	12,353,986	18,153,493	23,699,580	21,398,437	280,737,539	

		Tariff Code	Daily Charge \$	Non-TOU Metering			TOU Metering				Total	
				Uncontrolled \$	Controlled \$	Night \$	Evening Peak \$	Morning Peak \$	Off Peak \$	Night \$		
Domestic	High Density	PDH0030	739,399	7,424,387	1,770,876	355	0	0	0	0	9,935,017	
	Low Density	PDL0030	333,811	4,376,494	910,910	540	0	0	0	0	5,621,754	
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	8,053	54,365	0	0	0	0	0	0	62,418
		Assessed Demand (2.5 to 30kVA)	PNH0030	944,732	2,184,769	58,280	0	0	0	0	0	3,187,780
		Assessed Demand (31 to 100kVA)	PNH0100	424,163	1,354,875	16,820	0	0	0	0	0	1,795,858
		Assessed Demand (101 to 300kVA)	PNH0300	159,161	660,696	731	0	0	0	0	0	820,587
		Assessed Demand (301 to 500kVA)	PNH0500	123,160	0	0	0	72,828	102,465	103,650	32,811	434,914
		Assessed Demand (501 to 1000kVA)	PNH1000	170,529	0	0	0	195,063	286,538	282,004	110,862	1,044,996
		Assessed Demand (1001 to 4500kVA)	PNH4500	21,790	0	0	0	53,884	61,176	68,863	33,276	238,989
		Assessed Demand (4501 to 6500kVA)	PNH6500	33,158	0	0	0	147,569	196,589	200,147	94,521	671,985
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	9,474	37,067	0	0	0	0	0	0	46,541
		Assessed Demand (2.5 to 30kVA)	PNL0030	1,944,602	1,863,670	99,798	1,163	0	0	0	0	3,909,234
		Assessed Demand (31 to 100kVA)	PNL0100	127,594	312,564	7,510	0	0	0	0	0	447,667
		Assessed Demand (101 to 300kVA)	PNL0300	33,158	91,880	162	0	0	0	0	0	125,200
		Assessed Demand (301 to 500kVA)	PNL0500	18,474	0	0	0	12,783	18,668	18,753	6,326	75,004
		Assessed Demand (501 to 1000kVA)	PNL1000	9,474	0	0	0	4,249	7,823	7,281	3,014	31,840
Assessed Demand (1001 to 4500kVA)		PNL4500	21,790	0	0	0	111,657	162,007	156,928	60,714	513,096	
Assessed Demand (4501 to 6500kVA)		PNL6500	0	0	0	0	0	0	0	0	0	
Generation	Assessed Capacity (301 to 500kVA)	PNG0500	0	0	0	0	0	0	0	0	0	
	Assessed Capacity (501 to 1000kVA)	PNG1000	43,902	0	0	0	0	0	0	0	43,902	
	Assessed Capacity (1001 to 4500kVA)	PNG4500	0	0	0	0	0	0	0	0	0	
	Assessed Capacity (4501 to 6500kVA)	PNG6500	25,610	0	0	0	0	0	0	0	25,610	
			5,192,034	18,360,767	2,865,085	2,059	598,033	835,265	837,626	341,525	29,032,393	

		Tariff Code	Daily Charge \$	Non-TOU Metering			TOU Metering				Total	
				Uncontrolled \$	Controlled \$	Night \$	Evening Peak \$	Morning Peak \$	Off Peak \$	Night \$		
Domestic	High Density	PDH0030	739,399	7,424,387	1,770,876	355	0	0	0	0	9,935,017	
	Low Density	PDL0030	333,811	4,376,494	910,910	540	0	0	0	0	5,621,754	
Non-Domestic	High Density	Low Capacity (0 to 2.5kVA)	PNH0003	8,053	54,365	0	0	0	0	0	0	62,418
		Assessed Demand (2.5 to 30kVA)	PNH0030	944,732	2,184,769	58,280	0	0	0	0	0	3,187,780
		Assessed Demand (31 to 100kVA)	PNH0100	424,163	1,354,875	16,820	0	0	0	0	0	1,795,858
		Assessed Demand (101 to 300kVA)	PNH0300	159,161	660,696	731	0	0	0	0	0	820,587
		Assessed Demand (301 to 500kVA)	PNH0500	123,160	0	0	0	72,828	102,465	103,650	32,811	434,914
		Assessed Demand (501 to 1000kVA)	PNH1000	170,529	0	0	0	195,063	286,538	282,004	110,862	1,044,996
		Assessed Demand (1001 to 4500kVA)	PNH4500	21,790	0	0	0	53,884	61,176	68,863	33,276	238,989
		Assessed Demand (4501 to 6500kVA)	PNH6500	33,158	0	0	0	147,569	196,589	200,147	94,521	671,985
	Low Density	Low Capacity (0 to 2.5kVA)	PNL0003	9,474	37,067	0	0	0	0	0	0	46,541
		Assessed Demand (2.5 to 30kVA)	PNL0030	1,944,602	1,863,670	99,798	1,163	0	0	0	0	3,909,234
		Assessed Demand (31 to 100kVA)	PNL0100	127,594	312,564	7,510	0	0	0	0	0	447,667
		Assessed Demand (101 to 300kVA)	PNL0300	33,158	91,880	162	0	0	0	0	0	125,200
		Assessed Demand (301 to 500kVA)	PNL0500	18,474	0	0	0	12,783	18,668	18,753	6,326	75,004
		Assessed Demand (501 to 1000kVA)	PNL1000	9,474	0	0	0	4,249	7,823	7,281	3,014	31,840
Assessed Demand (1001 to 4500kVA)		PNL4500	21,790	0	0	0	111,657	162,007	156,928	60,714	513,096	
Assessed Demand (4501 to 6500kVA)		PNL6500	0	0	0	0	0	0	0	0	0	
Generation	Assessed Capacity (301 to 500kVA)	PNG0500	0	0	0	0	0	0	0	0	0	
	Assessed Capacity (501 to 1000kVA)	PNG1000	43,902	0	0	0	0	0	0	0	43,902	
	Assessed Capacity (1001 to 4500kVA)	PNG4500	0	0	0	0	0	0	0	0	0	
	Assessed Capacity (4501 to 6500kVA)	PNG6500	25,610	0	0	0	0	0	0	0	25,610	
			5,192,034	18,360,767	2,865,085	2,059	598,033	835,265	837,626	341,525	29,032,393	

## 8 Quality Threshold – Supporting Statistics

### 8.1 Compliance with Quality Standards

On 1 September 2008, Eastland Network wrote to the Commerce Commission regarding alterations to Network Reliability Performance Information, advising of errors in the calculation of quality threshold data. This letter explained the cause of the errors and the affect that corrected data had on the quality SAIDI and SAIFI quality thresholds. No reply has been received to this letter, and Eastland Network, in the absence of notice to the contrary from the Commerce Commission is adopting the corrected as its SAIDI and SAIFI quality thresholds.

#### 8.1.1 SAIDI

The five year average SAIDI to 31 March 2003:

	<b>Class B</b>	<b>Class C</b>	<b>Total (B+C)</b>
SAIDI <sub>1999</sub>	164.23	268.87	433.1
SAIDI <sub>2000</sub>	61.26	194.31	255.57
SAIDI <sub>2001</sub>	23.94	643.05	666.99
SAIDI <sub>2002</sub>	78.44	112.31	190.75
SAIDI <sub>2003</sub>	57.79	283.79	341.58
Total	385.66	1502.33	1,887.99
<b>Divide by 5</b>	<b>77.13</b>	<b>300.47</b>	<b>377.59</b>

The SAIDI for the period of 1 April 2008 to 31 March 2010:

	<b>Class B</b>	<b>Class C</b>	<b>Total (B+C)</b>
SAIDI <sub>2009</sub>	53.25	189.84	243.09
SAIDI <sub>2010</sub>	73.61	241.33	314.94

#### 8.1.2 SAIFI

The five year average SAIFI to 31 March 2003:

	<b>Class B</b>	<b>Class C</b>	<b>Total (B+C)</b>
SAIFI <sub>1999</sub>	1.21	3.08	4.29
SAIFI <sub>2000</sub>	0.56	2.65	3.21
SAIFI <sub>2001</sub>	0.50	4.81	5.31
SAIFI <sub>2002</sub>	0.41	3.07	3.48
SAIFI <sub>2003</sub>	0.53	3.60	4.13
Total	3.21	17.21	20.42
<b>Divide by 5</b>	<b>0.64</b>	<b>3.44</b>	<b>4.08</b>

The SAIFI for the period of 1 April 2008 to 31 March 2010:

	<b>Class B</b>	<b>Class C</b>	<b>Total (B+C)</b>
SAIFI <sub>2009</sub>	0.38	3.02	3.39
SAIFI <sub>2010</sub>	0.51	3.17	3.68

## 8.2 Reliability Limit Factors

These factors were determined in accordance with Schedule 3 of the Determination.

### 8.2.1 Boundary Values

The SAIDI boundary value was determined as follows:

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

where:

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

$$\beta_{SAIDI} = 1.60$$

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

The SAIFI boundary value was determined as follows:

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

where:

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

$$\beta_{SAIFI} = 1.66$$

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

### 8.2.2 Reliability Limits

The SAIDI Reliability Limit was determined as follows:

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

where:

$$\mu_{SAIDI} = 250.29$$

$$\delta_{SAIDI} = 52.09$$

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

The SAIFI Reliability Limit was determined as follows:

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

where:

$$\mu_{SAIFI} = 3.50$$

$$\delta_{SAIFI} = 0.76$$

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