



Commerce Act (Electricity Distribution Thresholds) Notice 2004

Threshold Compliance Statement

Section 2 - Quality Threshold

20 May 2009

Quality threshold assessment as at 31 March 2009

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Introduction

- 1 This threshold compliance statement ("the Statement") is submitted by Vector Limited ("Vector") pursuant to s7(1)(a) of the Commerce Act (Electricity Distribution Thresholds) Notice 2004 ("the Notice").
- 2 The Notice relates to the performance of electricity lines businesses as part of the Commerce Commission's ("the Commission") development and operation of a regulatory regime for such businesses, pursuant to Part 4A of the Commerce Act 1986.
- 3 The Notice requires lines businesses to publicly disclose information relevant to the assessment of their performance against the thresholds.
- 4 This section of the Statement pertains to the requirements of the Commission's quality threshold for the 31 March 2009 assessment date.

Reliability Criterion

- 5 Lines businesses are required to demonstrate that their system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI) for the assessment year do not exceed the five year average to 31 March 2003 for those respective reliability measures. Due to an extreme weather event in July 2008, Vector exceeds both reliability targets, as summarised in the table below.

Notice Requirement	Result for assessment year	Target ¹	Outcome	Target exceeded by	Target exceeded by (%)
6(1)(a) - SAIDI	153.4	104.0	Breach	49.5	48%
6(1)(b) - SAIFI	1.683	1.598	Breach	0.085	5%

Exclusion of Extreme Events

- 6 The Commission has made it clear that, post any breaches of the reliability criterion, it will consider the exclusion of extreme events, such as storms. The Commission confirmed the '2.5 Beta Method' of extreme event assessment in the supplementary guidelines issued on 2 November 2007.
- 7 The results (shown below) demonstrate that Vector does not comply with the SAIDI and SAIFI target when extreme events are assessed using the Beta method. The threshold is breached by a small margin which we consider to be within the bounds of statistical insignificance from meeting the targets.

¹ Note that Vector's reliability thresholds have been recalculated post divestment of the Wellington region. The new targets are the average of the five benchmark years for Vector's Auckland and Northern regions only. The previous thresholds (for Vector including the Wellington region) were 85.5 minutes and 1.313 for SAIDI and SAIFI respectively. Refer to the spreadsheet '08_09 Vector combined Beta and Target' (provided separately) for threshold calculations.

Notice Requirement	Normalised result for assessment year	Target	Outcome	Target exceeded by	Target exceeded by (%)
6(1)(a) - SAIDI	104.1	104.0	Breach	0.1	0.1%
6(1)(b) - SAIFI	1.630	1.598	Breach	0.032	2%

Extreme Event Identification using the 2.5 Beta Method

- 8 Vector's 2.5 Beta Method calculations were performed in accordance with the steps laid out in 'Appendix 1: Application of the Beta Method' from the Commerce Commission's Supplementary Guidelines document dated 2 November 2007.
- 9 Vector has comprehensive reliability data available from 1998. This has been used to calculate historical Major Event Day (MED) values and exclude them from the 5 years preceding the 2008/09 regulation year (the period 1/4/2003-31/3/2008). With the exclusion of these historic storms, regulation year T_{MED} values² were calculated to be:

	SAIDI ³	SAIFI
T_{MED}	7.51	0.163

- 10 One storm (which occurred over two consecutive days; 26-27 July 2008) was found to exceed the year's MED value of 7.51 SAIDI minutes. Details of the storm's reliability impact are provided below:

Date- Outage Commenced	Auckland Region SAIDI	Northern Region SAIDI	Daily SAIDI
26/07/2008	10.2	42.6	52.8
27/07/2008	0.1	4.0	4.0
Total SAIDI			56.9

- 11 The reliability impact of this storm is excluded and replaced by one instance of the boundary value.

	SAIDI	SAIFI
MED 26-27 July	56.88	0.216
Less T_{MED}	7.51	0.163
Net extreme event for exclusion	49.37	0.053

- 12 Excluding the extreme events identified by the 2.5 Beta method reduces the extent of Vector's breach.

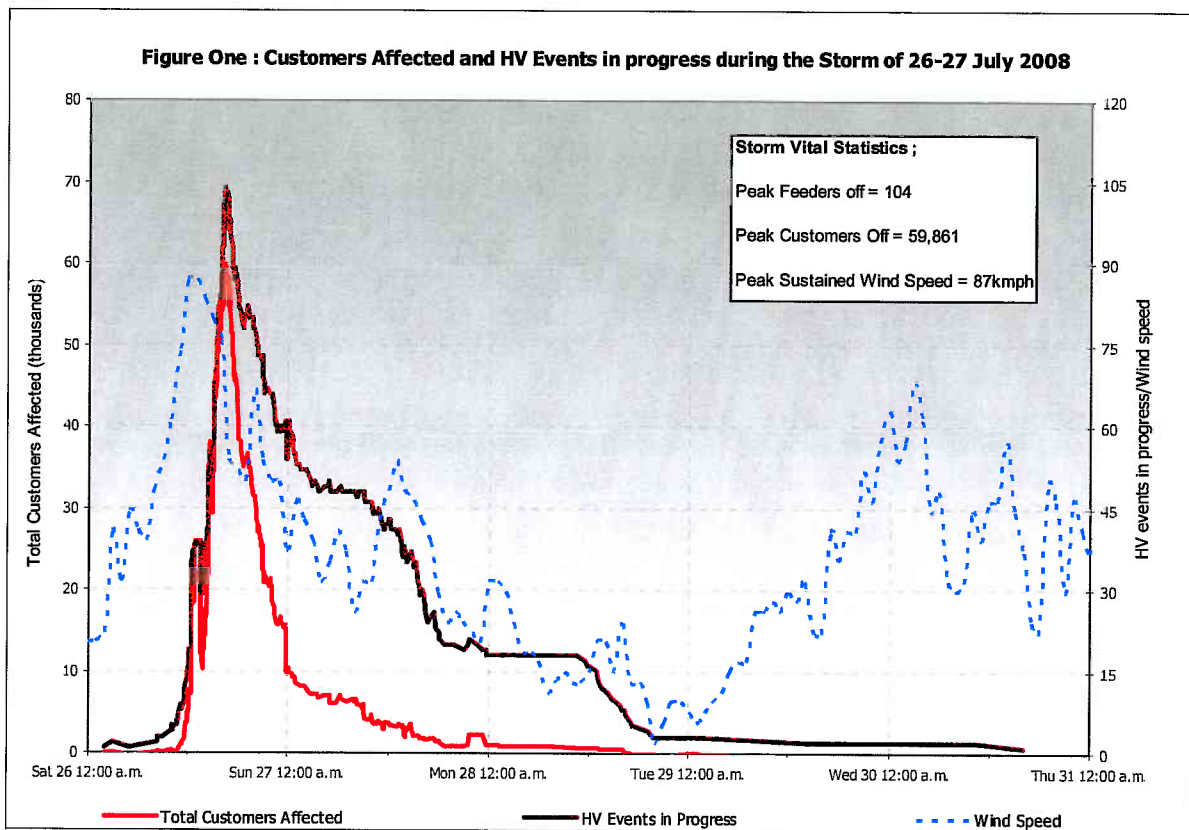
² The 2.5 Beta method works by calculating a SAIDI 'boundary' value (T_{MED}) based on statistical analysis of SAIDI over the 5 previous years. Guidelines for applying the Beta method can be found in the Commerce Commission document 'Supplementary Guidelines for investigating Breaches of the Reliability Criterion of the Quality Threshold' which was released on 2 November 2007.

³ Refer to the spreadsheet '08_09 Vector Combined Beta and Target' (provided separately).

Notice Requirement	Normalised result for assessment year	Target	Outcome	Target exceeded by	Target exceeded by (%)
6(1)(a) - SAIDI	104.1	104.0	Breach	0.1	0.1%
6(1)(b) - SAIFI	1.630	1.598	Breach	0.032	2%

Storm Supporting Evidence

- 13 The storm of July 2008 resulted in severe damage to Vector's electricity network. Winds increased in intensity throughout Saturday the 26th and reached (or exceeded) gale force between 9am and 11pm. During this period, network faults snowballed reaching a peak of 104 simultaneous HV faults and 60,000 customers without power.
- 14 Vector's 'Major Incident Team' coordinated the fault response engaging all available fault crews. This allowed the majority of customers to be restored within 24 hours. Crews worked extremely hard but some customers were not restored for several days due to the severity of damage to the network.
- 15 Figure One below follows the storm's progression plotting wind speed, customers affected and simultaneous HV faults in progress.



Consumer engagement criterion

- 16 Vector has chosen, as provided for by the Notice, not to demonstrate compliance with the consumer engagement criterion for the 31 March 2009 assessment date. Instead, Vector will demonstrate compliance as at the next assessment date (31 March 2010). However, Vector continues to engage with customers at all levels.

APPENDICES

Appendix 2-1 Calculation of SAIDI and SAIFI figures for the purposes of S6(1)(A) and 6(1)(B)

Regulation Year	Customer Minutes Lost ⁴		
	Auckland	Northern	Vector
98/99	20,767,399	36,432,001	57,199,400
99/00	14,944,839	19,358,545	34,303,384
00/01	13,070,935	25,576,088	38,647,023
01/02	14,018,579	26,774,194	40,792,773
02/03	20,035,471	41,183,159	61,218,630
03/04	18,367,487	36,229,702	54,597,189
04/05	18,032,523	29,006,503	47,039,026
05/06	26,509,816	45,946,317	72,456,133
06/07	30,555,224	40,852,313	71,407,537
07/08	28,417,145	101,216,412	129,633,557
08/09	25,319,881	54,425,302	79,745,183

Regulation Year	Customers Impacted ⁴		
	Auckland	Northern	Vector
98/99	301,286	444,551	745,837
99/00	263,198	356,996	620,194
00/01	261,112	380,456	641,568
01/02	216,586	437,458	654,044
02/03	326,203	582,197	908,400
03/04	271,271	548,151	819,422
04/05	247,404	433,458	680,862
05/06	380,685	533,317	914,002
06/07	351,821	490,829	842,650
07/08	299,682	625,583	925,265
08/09	298,153	576,644	874,797

Regulation Year	SAIDI ⁴		
	Auckland	Northern	Vector
98/99	48.4	85.0	133.4
99/00	34.2	44.2	78.4
00/01	29.5	57.7	87.2
01/02	31.0	59.2	90.2
02/03	42.8	87.9	130.6
03/04	38.2	75.4	113.7
04/05	36.9	59.4	96.3
05/06	53.3	92.4	145.7
06/07	60.3	80.7	141.0
07/08	55.3	196.9	252.1
08/09	48.7	104.7	153.4

⁴ Note that these figures differ slightly from values presented in previous year's compliance statements. The discrepancies primarily span the threshold years and are a result of changes to Vector's reliability reporting database in 2006. The magnitude of this variance is less than 0.2% so does not materially impact the accuracy of previous compliance statements.

Regulation Year	SAFT		
	Auckland	Northern	Vector
98/99	0.703	1.037	1.740
99/00	0.601	0.816	1.417
00/01	0.589	0.858	1.447
01/02	0.479	0.968	1.447
02/03	0.696	1.242	1.939
03/04	0.565	1.141	1.706
04/05	0.506	0.887	1.393
05/06	0.766	1.073	1.838
06/07	0.695	0.969	1.664
07/08	0.583	1.217	1.800
08/09	0.574	1.110	1.683

Customer Numbers

YEAR	NORTHERN	AUCKLAND	VECTOR	Regulation Year	Regulation Customers
1-Apr-94	157,978	242,066	400,044		
1-Apr-95	157,978	243,104	401,082	94/95	400,563
1-Apr-96	160,313	249,622	409,935	95/96	405,509
1-Apr-97	164,587	251,490	416,077	96/97	413,006
1-Apr-98	173,802	252,361	426,163	97/98	421,120
1-Apr-99	173,802	257,478	431,280	98/99	428,722
1-Apr-00	175,285	268,621	443,906	99/00	437,593
1-Apr-01	181,266	261,500	442,766	00/01	443,336
1-Apr-02	185,918	275,329	461,247	01/02	452,007
1-Apr-03	190,074	285,850	475,924	02/03	468,586
1-Apr-04	192,075	292,739	484,814	03/04	480,369
1-Apr-05	196,828	295,763	492,591	04/05	488,703
1-Apr-06	198,309	303,391	501,700	05/06	497,146
1-Apr-07	201,334	309,742	511,076	06/07	506,388
1-Apr-08	204,268	312,996	517,264	07/08	514,170
1-Apr-09	205,796	316,350	522,146	08/09	519,705





To the readers of the threshold compliance statement of Vector Limited for the assessment year ended on 31 March 2009.

We have examined the attached statement in section 2, being a threshold compliance statement in respect of the quality threshold prepared by Vector Limited for assessment as at 31 March 2009 and dated 20 May 2009 for the purposes of information requirements set out in clause 7 of the Commerce Act (Electricity Distribution Thresholds) Notice 2004 ("the Notice"). In this report the attached statement is called "the threshold compliance statement".

Directors' Responsibilities

Directors of Vector Limited are responsible for the certification of the threshold compliance statement in accordance with the Notice.

Auditor's Responsibilities

It is our responsibility to express an independent opinion on the threshold compliance statement and report our opinion to you.

We conducted our audit in accordance with the Auditing Standards issued by the Institute of Chartered Accountants of New Zealand.

Basis of Opinion – Quality Threshold: SAIDI and SAIFI Statistics for the Assessment Year ended 31 March 2009

Our audit included examination, on a test basis, of evidence relevant to the amounts and disclosures contained in Section 2 pages 3 to 8 of the threshold compliance statement and which relate to the SAIDI and SAIFI statistics for the assessment year ended on 31 March 2009 which are relevant to those parts of the quality threshold that are set out in clauses 6(1)(a) and 6(1)(b) of the Notice.

It also included assessment of the significant estimates and judgments, if any, made by Vector Limited in the preparation of the threshold compliance statement and assessment of whether the basis of preparation has been adequately disclosed.

We planned and performed our audit of the threshold compliance statement so as to obtain all the information and explanations which we considered necessary, including for the purpose of obtaining sufficient evidence to give reasonable assurance that the threshold compliance statement is free from material misstatements. In forming our opinion we also evaluated the overall adequacy of the presentation of information in the threshold compliance statement.



Basis of Opinion – Quality Threshold: SAIDI and SAIFI Statistics for the Years Ended 31 March 1999, 2000, 2001, 2002 and 2003

In relation to the SAIDI and SAIFI statistics for the years ended 31 March 1999, 2000, 2001, 2002 and 2003 which are relevant to those parts of the quality threshold that are set out in clauses 6(1)(a) and 6(1)(b) of the Notice, we have undertaken procedures to provide reasonable assurance that:

- the amounts and disclosures in the threshold compliance statement relating to those statistics have been correctly taken from the information disclosed by Vector Limited in accordance with the Electricity (Information Disclosure) Regulations 1999; and
- those statistics have been calculated based on the source data provided to us. We have not performed audit procedures on the source data.

Relationship and Interests

Partners and employees of our firm may deal with Vector Limited on normal terms within the ordinary course of trading activities of the business of the Company or Group. This has not impaired our independence as auditors. The firm has no other relationship with or interests in Vector Limited or any of its subsidiaries.

Opinions

We have obtained all the information and explanations we have required.

Quality Threshold: SAIDI and SAIFI Statistics

In our opinion, having made all reasonable enquiry, to the best of our knowledge:

- the SAIDI and SAIFI statistics for the assessment year ended on 31 March 2009 which are relevant to those parts of the quality threshold that are set out in clauses 6(1)(a) and 6(1)(b) of the Notice and related information have been calculated or prepared in accordance with the Notice and in accordance with Vector Limited's policies and procedures for recording SAIDI and SAIFI statistics as disclosed in the threshold compliance statement, and fairly represent the performance of Vector Limited for the assessment year ended on 31 March 2009;
- the SAIDI and SAIFI statistics for the years ended 31 March 1999, 2000, 2001, 2002 and 2003, which are relevant to those parts of the quality threshold that are set out in clauses 6(1)(a) and 6(1)(b) of the Notice, have been correctly taken from the information disclosed by Vector Limited in accordance with the Electricity (Information Disclosure) Regulations 1999. Those statistics have been properly calculated based on the unaudited source data provided to us by Vector Limited; and



- the SAIDI and SAIFI statistics for the assessment year ended on 31 March 2009, together with the SAIDI and SAIFI statistics for the years ended 31 March 1999, 2000, 2001, 2002 and 2003, give a true and fair view of the performance of Vector Limited against those parts of the quality threshold that are set out in clauses 6(1)(a) and 6(1)(b) of the Notice for the assessment year ended on 31 March 2009.

Our audit was completed on 20 May 2009 and our opinion is expressed as at that date.

KPMG

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