# **OtagoNet Joint Venture**

# DEFAULT PRICE QUALITY PATH COMPLIANCE STATEMENT

# FOR THE ASSESSMENT DATE 31 MARCH 2013

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

# 11 June 2013

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# **Supporting Information (Clause 11.1(b))**

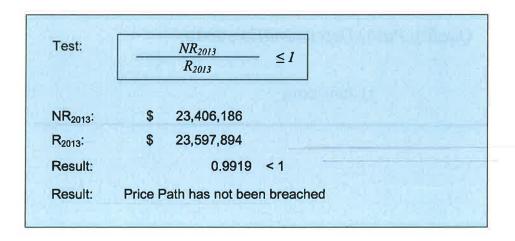
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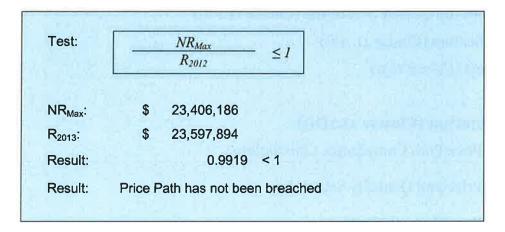
# 1) Compliance with the Price Path (Clause 11.1(a))

OtagoNet Joint Venture does comply with the price path at the assessment date, 31 March 2013, as specified in the Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010.

**Clause 8.4** - The notional revenue ( $NR_t$ ) of a Non-exempt EDB at any time during the Assessment Period must not exceed the allowable notional revenue ( $R_t$ ) for the Assessment Period.

Compliance is demonstrated in the following tables. The first table demonstrates that notional revenue derived using posted prices at the end of the Assessment Period is less than allowable notional revenue. The second table demonstrates that the maximum notional revenue during the Assessment Period does not exceed allowable notional revenue thus illustrating that at no time during the Assessment Period is the price path breached.





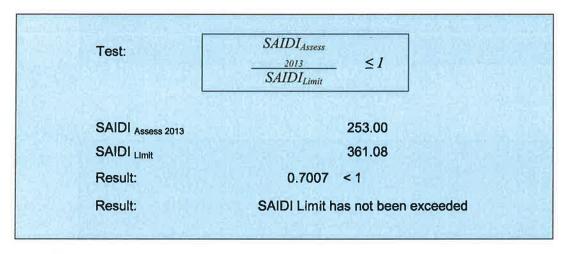
Supporting evidence is presented in Appendices A, B and C.

# 2) Compliance with the Quality Standards (Clause 11.1(a))

OtagoNet Joint Venture does comply with all requirements of the quality standards at the assessment date, 31 March 2013, as specified in the *Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010*.

**Clause 9.2 -** A Non-exempt EDB's Assessed Values for an Assessment Period must not exceed its Reliability Limits for that Assessment Period.

Compliance is demonstrated in the following tables. The first table demonstrates compliance with the SAIDI Limit and the second table compliance with the SAIFI limit.



Test:	$\frac{SAIFI_{Assess}}{2013} \leq 1$ $SAIFI_{Limit}$
SAIFI Assess 2013	2.30
SAIFI Limit	3.12
Result:	0.7373 < 1
Result:	SAIFI Limit has not been exceeded

Supporting evidence is presented in Appendices D and E.

# **Prior Period Reliability Assessment (9.1(b))**

Clause 9.1.(b) requires: compliance with annual reliability assessments for the two immediately preceding extant Assessment Periods

SAIDI Assess	276.26	SAIFI Assess 2012	2.31
SAIDI Limit	361.08	SAIFI Limit	3.12
0.7651	< 1	0.7401	< 1
	Does not Exceed Limit		Does not Exceed Limit

SAIDI Assess 2011	247.08	SAIFI Assess 2011	2.26
SAIDI <sub>Limit</sub>	361.08	SAIFI Limit	3.12
0.6843	< 1	0.7231	<1
	Does not Exceed Limit		Does not Exceed Limit

**Compliance Summary** 

Clause 9.1 A Non-exempt EDB must, in respect of each Assessment Period, either:

- (a) comply with the annual reliability assessment specified in clause 9.2; or
- (b) have complied with those annual reliability assessments for the two immediately preceding extant Assessment Periods

	SAIDI	SAIFI	Compliance
Compliance with 9.1(a)	Does not Exceed Limit	Does not Exceed Limit	Complies
or			
Compliance with 9.1(b)	Did not Exceed Limit	Did not Exceed Limit	Complies
Clause 9.1 Result:	Complie	es with Quality	Standard

# 3) Director Certification (Clause 11.1(c))

We Neil Douglas Boniface and Kenneth John Forrest, being directors of companies which are parties to the OtagoNet Joint Venture certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached Annual Compliance Statement of OtagoNet Joint Venture, and related information, prepared for the purposes of the *Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2010* are true and accurate.

Neil Douglas Boniface

Kenneth John Forrest

11 June 2013





# Independent Auditors' Report

To the readers of the Annual Compliance Statement of OtagoNet Joint Venture for the assessment period ended on 31 March 2013

The Auditor-General is the auditor of OtagoNet Joint Venture (the Company). The Auditor-General has appointed me, Robert Harris, using the staff and resources of PricewaterhouseCoopers, to provide an opinion, on her behalf, on OtagoNet Joint Venture's Annual Compliance Statement for the assessment period ended on 31 March 2013 on pages 2 to 4 and 9 to 25 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 OtagoNet Joint Venture for the assessment period ended on 31 March 2013 and dated 11 June 2013 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 OtagoNet Joint Venture 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 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 2 and 9 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 and 21 to 25 of the Annual Compliance Statement.



# Independent Auditors' Report OtagoNet Joint Venture

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 OtagoNet Joint Venture 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 OtagoNet Joint Venture 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 the provision of other professional advisory services. We are not aware of any relationships between our firm and OtagoNet Joint Venture that, in our professional judgment, may reasonably be thought to impair our independence.

### Opinion

In our opinion, the Annual Compliance Statement of OtagoNet Joint Venture 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 11 June 2013 and our opinion is expressed as at that date.

Robert Harris

On behalf of the Auditor-General

Christchurch, New Zealand

PricewaterhouseCoopers

# Appendix A – Price Path Compliance Calculations (Clause 11.1(b)(i))

# Clause 8.4

Notion	nal Revenue for the year ending Ma	arch 2013
Term	Description	Value \$
$P_{2013}*Q_{2011}$	Prices at 31 March 2013 multiplied by 31 March 2011 Base Quantities	30,707,158
	Transmission Charges for year ending 31 March 2013	6,187,271
	Avoided Transmission Charges for year ending 31 March 2013	933,955
$K_{2013}$	Rates for year ending 31 March 2013	64,396
2015	Electricity Authority Levies for year ending 31 March 2013	55,343
	Commerce Act Levies for year ending 31 March 2013 + 1/5 of Commerce Act Levies for year ending 31 March 2010	60,008
NR <sub>2013</sub>	Notional Revenue for the year ending 31 March 2013	23,406,186

Maxi	mum Notional Revenue for the yea March 2013	r ending
Term	Description	Value \$
P <sub>Max</sub> *Q <sub>2011</sub>	Maximum Prices between 1 April 2012 and 31 March 2013 multiplied by 31 March 2011 Base Quantities	30,707,158
	Transmission Charges for year ending 31 March 2013	6,187,271
	Avoided Transmission Charges for year ending 31 March 2013	933,955
$K_{2013}$	Rates for year ending 31 March 2013	64,396
2013	Electricity Authority Levies for year ending 31 March 2013	55,343
	Commerce Act Levies for year ending 31 March 2013 + 1/5 of Commerce Act Levies for year ending 31 March 2010	60,008
NR <sub>Max</sub>	Notional Revenue for the year ending 31 March 2013	23,406,186

Clause 8.5

Allov	vable Notional Revenue	2013
Term	Description	Value \$
$P_{2012}*Q_{2011}$	Maximum Prices between 1 April 2011 and 31 March 2012 multiplied by 31 March 2011 Base Quantities	28,881,680
	Transmission Charges for year ending 31 March 2012	5,667,775
	Avoided Transmission Charges for 2012	573,666
	Rates for year ending 31 March 2012	59,538
$K_{2012}$	Electricity Commission Levies for year ending 31 March 2012	58,383
	Commerce Act Levies for year ending 31 March 2012 + 1/5 of Commerce Act Levies for year ending 31 March 2010	59,650
R <sub>2012</sub> NR <sub>2012</sub>	Revenue Differential for year ending 31 March 2012	99,421
X	X Factor	0
$(1 + \Delta CPI_{2013})$	Average change in Consumer Price Index	1.0459
$R_{2013}$	Allowable Notional Revenue under the CPI-X Price Path for the year ending 31 March 2013	23,597,894

Supported by P\*Q schedules presented in Appendix B

	ΔCF	Pl <sub>2013</sub>	
Numerator		Denominator	
CPI <sub>Dec2010</sub>	1137	CPI <sub>Dec2009</sub>	109
CPI <sub>Mar2011</sub>	1146	CPI <sub>Mar2010</sub>	109
CPI <sub>Jun2011</sub>	1157	CPI <sub>Jun2010</sub>	109
CPI <sub>Sep2011</sub>	1162	CPI <sub>Sep2010</sub>	111
Total	4602	Total	440
ΔCPI <sub>2013</sub>		4.59%	

	Revenue Differential 2012	
Term	Description	Value \$
$R_{2012}$	Allowable Notional Revenue under the CPI-X Price Path for the year ending 31 March 2012	22,828,605
NR <sub>2012</sub>	Notional Revenue for the year ending 31 March 2012	22,729,184
R <sub>2012</sub> . NR <sub>2012</sub>	Allowable Notional Revenue less Notional Revenue for the year ending 31 March 2012	99,421

Appendix B – Price and Quantity Schedules (Clause 11.1(b)(i))

 $NR_{2013}$ 

Notional Revenue at Assessment Date (31 March 2013):

Fixed Charges	Q =31-03-11	P= 31-3-13		
	Number	Average	Rate	Total Fixed
		kVA	\$/kVA	Charge
Domestic	9,130	10	\$ 53.58	\$ 4.891,854
			\$/day	
10% Fixed Charge Option Off Peak	1,423	_	49	69
10% Fixed Charge Option Peak	691	1	\$ 0.068	\$ 17,151
			Rate \$/kVA	
Commercial	3,417	16.84	\$ 89.31	\$ 5,138,808
Unmetered	91	1	\$ 220.21	\$ 20.039
		Watts		
Streetlights	o	256,600.00	0.412	\$ 105,719
Total	14,761			\$ 10.173.571

Variable Charges	Annual Day	Annual Night		Day		Night		Total Day		Total Night	Total
	kWHs	kWHs	S	\$/kWH		\$/kwh		S		40	Variable
Domestic, Commercial,											
Unmetered & Streetlights	99,043,898	37,339,545.33	₩	0.11893	₩	0.01380	ь	\$ 11,779,291	€9	\$ 515,286	
10% Fixed Charge Option	8,144,949	2,714,983.00	₩	0.20117	↔	0.02197	€	1,638,519	€9	59,648	
			er e				69	\$ 13,417,810	69	574,934	\$13,992,744
Total Fixed & Variable											\$ 24,166,315

Maximum Demand Customers					
Fixed Charges	Number	Total Capacity	Rate	Total	Total Fixed
		kVA	\$/kVA		
	46	14941.66667	\$ 43.41	\$ 648,618	
		Annual	Rate		
		Maximum Demand	\$/kVA		
	46	9369.1	\$ 36.74	\$ 344,219.02	\$ 992,837
Variable Charges	kWh	S/kWh	Total		Total Variable
Summer Day	11,100,089	0.0380	\$ 421,803		
Winter Day	8,280,968	0.0725	\$ 600,370		
All Nights	6,869,829	0.0057	\$ 39,158		\$ 1,061,332
Total Fixed & Variable					\$ 2,054,168

Bulk & Generator			Total Annual								
			Line Charge								
Bulk Customers											
0001995995TGE58			\$2,383,815.47								
0001990133TG0E5			\$ 286,041.39								
0001990220TG58B			\$ 532,292.01								
Generator			\$ 295,417.04								
Half Hour Metered Individual	Units	Fixed	Units	Variable	Units	Fixed	Units	Variable	Fixed	Variable	Total
0001700063TGC3B	No ICPs	-	Annual MWh		\$/annum	\$670,217.76	\$/MWh		\$670,217.76	, 9	\$670,217.76
0001090833TG6F1	No ICPs	-	Annual MWh	41.84	\$/annum	\$ 5,711.25	\$/MWh	\$ 133.21	\$ 5,711.25	\$ 5,572.71	\$ 11,283.96
0001230615TG210	No ICPs	_	Annual MWh	229.21	229.21 \$/annum	\$ 7,574.76	\$/MWh	\$ 29.43	29.43 \$ 7,574.76	\$ 6,745.74	\$ 6,745.74 \$ 14,320.50

Half Hour Metered Individual	Units	Fixed	Units	Variable	Units	Fixed	Units	Variable		Fixed	Variable	Total
0001230990TG51A	No ICPs	-	Annual MWh	936.09	\$/annum	\$ 38,519.32	\$/MWh	\$ 43	<b>43.40</b> \$ 38	38,519.32	\$ 40,627.41	\$ 79,146.73
0001370610TG0A6	No ICPs	-	Annual MWh	81.34	\$/annum	\$ 6,950.25	\$/MWh	\$ 82	82.66 \$ 6	6,950.25	\$ 6,723.25	\$ 13,673.49
0001230785TG4F3	No ICPs	-	Annual MWh	147.87	S/annum	\$ 5,944.88	\$/MWh	\$ 34	34.16 \$ 5	5,944.88	\$ 5,051.60	\$ 10,996.48
0001940095TGC20	No ICPs	-	Annual MWh	95.62	\$/annum	\$ 14,539.09	\$/MWh	\$	69.81 \$ 14	14,539.09	\$ 6,675.05	\$ 21,214.14
0001231172TGE88	No ICPs	-	Annual MWh	1,748.50	\$/annum	\$ 62,200.49	\$/MWh	\$ 37	37.85 \$ 62	62,200.49	\$ 66,182.74	\$128,383.23
0001240297TG167		-		12.		· •		69	€	4	· •	ا د
0001731161TG536	No ICPs	-	Annual MWh	142.73	S/annum	\$ 18,487.32	\$/MWh	<b>6</b>	\$ 18	18,487.32	· &	\$ 18,487.32
0001731175TGE91	No ICPs	-	Annual MWh	74.30	\$/annum	\$ 21,385.35	\$/MWh	<b>↔</b>	\$ 27	21,385.35	φ.	\$ 21,385.35
0001491270TGA81	No ICPs	0	Annual MWh		\$/annum	\$ 3,843.45	\$/MWh	\$ 61	61.99			4
0001231005TGF1B	No ICPs	0	Annual MWh		\$/annum	\$ 88,793.55	\$/MWh	\$ 91	91.92			:ı &
Total Bulk & Generator												\$4,486,674.88
P2013*Q2011												\$ 30,707,158
K 2012												
Transmission (31 March 2013)	2013)											\$6,187,271
Avoided Transmission Charges (31 March 2013)	narges (31 M	arch 2013										\$933,955
(0,000 J 1,000 )												
Kates ( 31 March 2013)												\$64,396
Electricity Authority Levies (31 March 2013)	s (31 March	2013)										\$55,343
CA Levies (31 March 2013)	3)											\$60,008

# $NR_{max}$

# Maximum Notional Revenue at Assessment Date (31 March 2013):

As no prices have changed over the assessment period, Maximum Notional Revenue is the same as Notional Revenue at the Assessment Date (included in the NR 2013 table above).

 $\mathbb{R}_{2013}$ 

# Allowable Notional Revenue at Assessment Date (31 March 2013):

Fixed Charges	0 = 0	Q = 31-03-11	P	= 31-3-12				
	N	Number	Ave	Average kVA	Rat	Rate \$/kVA	Total	Total Fixed Charge
Domestic		9,130		10	\$	50.96	\$	4,652,648
						\$/day		
10% Fixed Charge Option Off Peak		1,423		1	49		69	ī
10% Fixed Charge Option Peak		691		1	69	0.068	မ	17,151
					Rat	Rate \$/kVA		
Commercial		3,417		16.84	9	84.94	69	4,887,363
Unmetered		91		-	69	209.44	€	19,059
				Watts				
Streetlights		6	25	256,600.00		0.392	69	100,587
Total		14,761					6	9,676,808
Variable Charges	Annual Day	Annual Night	Day	Night	Total Day	Total Night		Total
	kWHs	kWHs	\$/kWH	\$/kWH	49	49		Variable
Domestic, Commercial,								
Unmetered & Streetlights	99,043,898	37,339,545.33	\$ 0.11312	\$ 0.01310	\$ 11,203,846	\$ 489,148		
10% Fixed Charge Option	8,144,949	2,714,983.00	\$ 0.19110	\$ 0.02090	\$ 1,556,500	\$ 56,743		
					\$ 12,760,346	\$ 545,891	49	13,306,237
Total Fixed & Variable							\$2	\$22,983,044

Variable Charges Summer Day Winter Day All Nights All Nights Bulk & Generator Bulk & Generator			-	Rate \$/kVA	\$/PVA		Total			Total Cived		
N. 11.1.1		i otai Capacity	6	Nate	ZAVIG		lotal			lotal FIXed		
N. 11.1.1		kVA										
11,1 8,23	46	14941.66667	7	₩	41.29	Θ	616,941					
8.23	Annı	Annual Maximum Demand	Demand	Rate \$/kVA	6/kVA							
8,2,	46	9369.053429	6	↔	34.94	8	327,354.73		so.	944,296	96	
8,27	kWh	\$/kWh		Total	tal					Total Variable		
8.2	11,100,089	0.0361		\$	400,713							
	8,280,968	0.0690		\$	571,387							
Fotal Fixed & Variable  Bulk & Generator	6,869,829	0.0054		\$	37,097			.1,	1,009,197			
Bulk & Generator												\$1.953.493
Bulk & Generator												
	Total Annual											
	Line Charge											
Bulk Customers												
0001995995TGE58 \$	2,063,717.30											
0001990133TG0E5 \$	307,359.80											
0001990220TG58B \$	386,336.43											
Generator	295,417.04											
Half Hour Metered Units Fixed	Units	Variable	Units	Fixed	Units		Variable	Fixed		Variable		Total
0001700063TGC3B No ICPs 1	Annual MWh		\$/annum	\$ 588,615.55	55 \$/MWh	49		\$ 588,615.55	5.55		49	588,615.55
0001090833TG6F1 No ICPs 1	Annual MWh	41.84	S/annum	\$ 5,161.10	10 \$/MWh	69	120.00	\$ 5,16	5,161.10 \$	5,020.20	ь	10,181.30
0001230615TG210 No ICPs 1	Annual MWh	229.21	\$/annum	\$ 6,000.60	60 \$/MWh	€9	26.90	\$ 6,00	6,000.60 \$	6,165.64	69	12,166.24
0001230990TG51A No ICPs 1	Annual MWh	936.09	\$/annum	\$ 37,602.30	30 \$/MWh	€	39.79	\$ 37,602.30	2.30	37,247.14	₩	74,849.44
0001370610TG0A6 No ICPs 1	Annual MWh	81.34	\$/annum	\$ 7,705.15	15 \$/MWh	€9	95.16	\$ 7.70	7,705.15 \$	7,740.41	↔	15,445.56

Half Hour Metered Individual	Onits	Fixed	Units	Variable	Units		Fixed	Units	Variable		Fixed	Š	Variable	Total	
0001230785TG4F3	No ICPs	-	Annual MWh	147.87	\$/annum	↔	5,314.40	\$/MWh	\$ 29.29	€9	5,314.40	69	4,331.02	\$ 9,645.42	.42
0001940095TGC20	No ICPs	-	Annual MWh	95.62	S/annum	↔	29,429.95	\$/MWh	\$ 101.48	↔	29,429.95	€9	9,703.52	\$ 39,133.47	.47
0001231172TGE88	No ICPs	-	Annual MWh	1,748.50	S/annum	မာ	56,520.25	\$/MWh	\$ 33.19	↔	56,520.25	69	58,032.72	\$ 114,552.97	26
0001240297TG167	No ICPs	-	Annual MWh	Ĩ	\$/annum	€9	٠	\$/MWh	·	€9	1900	₩		€	
0001731161TG536	No ICPs	-	Annual MWh	142.73	S/annum	€	15,724.20	\$/MWh	₩	છ	15,724.20	69	r	\$ 15,724.20	.20
0001731175TGE91		-		9		69	11,997.55		<del>У</del>	မ	11,997.55	ь		\$ 11,997.55	.55
0001491270TGA81	No ICPs	0	Annual MWh		\$/annnm	\$	3,358.00	\$/MWh	\$ 98.79						
0001231005TGF1B	No ICPs	0	Annual MWh		\$/annum	\$	32,244.10	\$/MWh	\$ 47.63					69	9
Total Bulk & Generator														3,945,142.26	26
P2012*Q2011													\$ 28,	28,881,680	
K 2012															
Transmission (31 March 2012)	ch 2012)												8	5,667,775	
Avoided Transmission Charges (31 March 2012)	Charges (3												€9	573,666	
Rates ( 31 March 2012)													₩.	59,538	
Electricity Commission Levies (31 March   2012)	Levies (31	March											G	58,383	
CA Levies (31 March 2012)	012)												49	59,650	
P2012Q 2011 - K 2012												\$ 2	22,462,668		

DCT 12013
1137
1146
1157
1162
4602
Average change in Consumer Price Index over 2013
1-X Factor
Allowable Notional Revenue under the CPI-X Price Path for the year ended 31 March 2013
Expression must be less than or equal to 1 to avoid breaching 5(1)(a)
Value of Compliance or (Breach)

ntial 2012	Value \$	\$ 22,828,605	\$22,729,184	\$99,421
Revenue Differential 2012	Description	Allowable Notional Revenue under the CPI-X Price Path for the year ending 31 March 2012	Notional Revenue for the year ending 31 March 2012	Allowable Notional Revenue less Notional Revenue for the year ending 31 March 2012
	Term	R2012	NR2012	R2012 - NR2012

# Appendix C – Pass Through Costs (Clause 11.1(b)(ii))

Pass Th	rough Costs for	year ending Ma	arch 2013	
K <sub>2013</sub>	Actual (\$)	Forecast (\$)	Variance (\$)	Variance (%)
Transmission	6,187,271	6,187,271	(0)	(0.0%)
Avoided Transmission	933,955	933,955	(0)	(0.0%)
Rates	64,396	56,400	7,996	12.4%
Electricity Authority Levies	55,343	60,000	(4,657)	(8.4%)
Commerce Act Levies	60,008	65,485	(5,477)	(9.1%)
Total Pass Through Costs	7,300,972	7,303,111	(2,139)	(0.0%)

Rates were above forecast due to higher than expected increases from the local councils.

# Appendix D – Quality Standard Compliance Calculations (Clause 11.1(b)(iv))

# **Reliability Data (Before Normalisation)**

Year	SA	AIDI (Interruption Duration	on)	SAIFI (	Interruption Frequenc	y)
real	Class B	Class C	Total	Class B	Class C	Total
2005	76.41	98.00	174.41	0.45	1.27	1.73
2006	174.09	133.07	307.16	0.76	1.98	2.74
2007	293.64	176.82	470.46	1.31	2.21	3.53
2008	187.57	315.83	503.40	0.81	2.29	3.10
2009	163.62	106.70	270.32	0.72	2.09	2.81
	Reference Period Total SAIDI		1,725.75	Reference Period Total SAIFI		13.91
	Reference I	Period Average SAIDI	345.15	Reference Period Average SAII		2.78
2011	114.59	132.49	247.08	0.48	1.77	2.26
2012	99.87	220.91	320.78	0.46	1.90	2.37
2013	130.52	122.49	253.00	0.55	1.75	2.30

# **Reliability Limit Calculations**

## SAIDI Boundary Calculations

\alpha_{SAIDI}	-0.6442
β <sub>SAIDI</sub>	1.4527

The average of the natural logarithm (In) of each daily SAIDI Value in the non-zero data set

The standard deviation of the natural logarithm (In) of each daily SAIDI Value in the non-zero data set

$$B_{SAIDI} = e^{(\alpha SAIDI + 2.5^{\circ} \beta SAIDI)}$$
 19.8376

SAIDI Boundary Value

# **SAIFI Boundary Calculations**

$lpha_{SAIFI}$	-5.5381
$eta_{SAIFI}$	1.4201

The average of the natural logarithm (In) of each daily SAIFI Value in the non-zero data set

The standard deviation of the natural logarithm (In) of each daily SAIFI Value in the non-zero data set

$B_{\text{SAIFI}} = e^{(\alpha \text{SAIFI} + 2.5*\beta \text{SAIFI})}$	0.1370
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SAIFI Boundary Value

# Event Days exceeding SAIDI Boundary Value within the Reference Dataset

Date	Pre-Normalised SAIDI	Pre- Normalised SAIFI	Normalised SAIDI	Normalised SAIFI
29.06.05	21.0942	0.0736	19.8376	0.0736
04.04.06	32.7176	0.1715	19.8376	0.1370
26.04.06	28.0307	0.2249	19.8376	0.1370
02.09.06	28.7310	0.1124	19.8376	0.1124
23.06.07	22.7035	0.0406	19.8376	0.0406
23.10.07	78.0372	0.2305	19.8376	0.1370
21.11.07	48.4461	0.1583	19.8376	0.1370

# **SAIDI Limit**

μsaidi	320.9701
σ <sub>SAIDI</sub>	40.1053

The average annual SAIDI Value in the Normalised Reference Dataset

The standard deviation of daily SAIDI Values in the Normalised Reference Dataset multiplied by  $\sqrt{3}65$ 

SAIDI <sub>Limit</sub> = $\mu_{SAIDI}$ + $\sigma_{SAIDI}$	361.0754
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SAIDI Limit Value

## SAIFI Limit

μsaifi	2.7349
<b>σ</b> saifi	0.3848

The average annual SAIFI Value in the Normalised Reference Dataset

The standard deviation of daily SAIFI Values in the Normalised Reference Dataset multiplied by  $\sqrt{365}$ 

$SAIFI_{Limit} = \mu_{SAIFI} + \sigma_{SAIFI}$	3.1197
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SAIFI Limit Value

# Event Days exceeding SAIDI Boundary Value within the 2013 Assessment Dataset

Date	Pre- Normalised SAIDI	Pre- Normalised SAIFI	Normalised SAIDI	Normalised SAIFI

## Assessed SAIDI Value 2013

SAIDI <sub>2013</sub>	253.00	The sum of daily SAIDI Values in the 1 April 2012 - 31 March 2013 Normalised Assessment Dataset
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# Assessed SAIFI Value 2013

SAIFI <sub>2013</sub>	2.30	The sum of daily SAIFI Values in the 1 April 2012 - 31 March 2013 Normalised Assessment Dataset
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# **Prior Period Assessed Values**

# Assessed SAIDI Value 2011 SAIDI<sub>2011</sub> The sum of daily SAIDI Values in the 1 April 2010 - 31 March 2011 Normalised Assessment Dataset

Assessed SAIFI Value	ue 2011	
SAIFI <sub>2011</sub>	2.2559	The sum of daily SAIFI Value the 1 April 2010 - 31 March 2011 Normalised Assessment Dataset

# Assessed SAIDI Value 2012 SAIDI<sub>2012</sub> The sum of daily SAIDI Values in the 1 April 2011 - 31 March 2012 Normalised Assessment Dataset

Assessed SAIFI Value 20	12
SAIFI <sub>2012</sub>	2.31 The sum of daily SAIFI Values in the 1 April 2011 - 31 March 2012 Normalised Assessment Dataset

# Appendix E – Policies and Procedures for Recording SAIDI and SAIFI (Clause 11.1(b)(v))

OJV contracts PowerNet to manage its network via an Outsourcing Agreement.

PowerNet has a number of ISO 9002 procedures that govern the operational processes that surround the interruption, restoration and quality of supply to its customers. These procedures document the process by which managing, recording and reporting of outages is performed by PowerNet. This is carried out by following a series of flow charts, documents, forms and instructions contained within the following procedures:

PNM 65 – Planned Outages

PNM 69 - Network Faults, Defects and Supply Complaints

PNM 71 – Use of Operating Orders

Key items within these procedures that relate to the recording and reporting of SAIDI and SAIFI statistics include:

- Responsibilities for recording faults and outages at the system control operator level through to reviewing and reporting of faults and outages daily by management, weekly at operations meetings and monthly at board meetings.
- Methods by which notification of planned and unplanned outages are identified and captured from various sources such as customers, network equipment, contractors, Transpower, the public or emergency services.
- The use of Operating Orders for planned maintenance and unplanned fault restoration and how the information from these orders flow through to the Outage Reporting System in the form of duration of outages and number of customers affected.
- The recording of all faults and outages, however for the reporting of SAIDI and SAIFI only the inclusion of outages of a duration exceeding one minute or affecting more than three customers is recorded.
- The method of calculating SAIDI and SAIFI for outages which are progressively restored.
- The preparation, retention and archiving of supporting records and data.

