



Default Price-Quality Path Compliance Statement

For the Assessment Period ended 31 March 2018

12 June 2018

Pursuant to the requirements of clause 11.1 of the Electricity Distribution
Services Default Price-Quality Path Determination 2015

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1. Summary of Compliance

We have complied with the price path (clause 8) and the quality standards (clause 9) of the *Commerce Act (Electricity Distribution Default Price-Quality Path) Determination 2015* ("Determination") for the assessment period ended 31 March 2018.

We submit the following information in our *Default Price-Quality Path Compliance Statement* pursuant to clause 11.1 of the Determination:

- Price path under clauses 11.4(c) to (k):
 - the amount of allowable notional revenue and notional revenue
 - prices and quantities
 - the amounts of Pass-through and Recoverable Costs and information used to determine these amounts
 - the methodology used to calculate Pass-through prices and Distribution prices
 - the amount of charge relating to New Investment Agreements
 - the variances between the forecast and actual amounts of Pass-through Costs and Recoverable Costs and explanatory notes of material variances.
 - a reconciliation between Pass through Balance for this period and last.
- Quality standards under clause 11.5 (c), (e), and (f):
 - assessed values and reliability limits
 - SAIDI and SAIFI statistics and calculations
 - the annual reliability assessments for the two previous assessment periods
 - a description of how SAIDI and SAIFI statistics were recorded, including policies and procedures
 - the cause of each Major Event Day within the assessment period.
- Director certification under clause 11.3(a) as set out in Schedule 6.
- An assurance report under clause 11.3(b) as set out in schedule 7.

Please note, under clause 11.2(a) to (f), we have:

- complied with price path in clause 8 for the assessment period
- complied with the quality standards in clause 9 for the assessment period

- not restructured prices during the assessment period with the meaning of restructured prices set out under clause 4 (Interpretation) of the Determination
- not received a transfer of transmission assets or transferred assets to Transpower
- not amalgamated or merged with another party or participated in a Major Transaction with the meaning set out in clause 4 of the Determination.

This compliance statement was certified by a director of the board on 12 June 2018.

In conjunction with this compliance statement, copies of our New Investment Agreements with Transpower New Zealand have been submitted to the Commerce Commission in soft copy format in accordance with clause 11.4(h).

2. Compliance with the Price Path

We have complied with the price path as specified by clause 8 of the Determination. Clause 8.3 'Compliance with allowable notional revenue' requires that:

The notional revenue of a Non-exempt EDB in an Assessment Period must not exceed the allowable notional revenue for the Assessment Period, such that—

$$NR \leq ANR$$

Our compliance with the price path is demonstrated in Table 1 below.

Table 1: Notional Revenue calculation

Test:	$NR_{2017/18} \leq ANR_{2017/18}$	
NR _{2017/18}	\$	40,600,718
ANR _{2017/18}	\$	41,437,676
Result		0.9798 < 1
Result	Price Path has not been breached	

Table 1 above shows that our notional revenue, derived using posted prices as at 31 March 2018, was less than our allowable notional revenue. More details on the notional and allowable notional revenue calculations can be found at Appendix A, on page 15.

Pass-through balance for 2018

The pass through balance for the assessment period ended 31 March 2018 is -\$4,371,046 and is shown in Table 2 below.

Table 2: Pass through balance for 2018

<i>PTB</i> _{2017/18}	Pass-through Balance for the Assessment Period ending 31 March 2018	(4,371,046)
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Pass through balance for 2017

The pass through balance for the assessment period ended 31 March 2017 was -\$1,938,431 and is shown in Table 3 below.

Table 3: Pass through balance for 2017

<i>PTB</i> _{2016/17}	Pass-through Balance from previous Assessment Period	(1,938,431)
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Pass through Balance Reconciliation

We recovered \$21.9 million via pass-through and transmission prices. The total pass – through and recoverable costs realised during the period were \$24.2 million making the pass-through balance -\$4.4 million (or -18%). The 2018 pass through balance reconciliation is shown in Table 4 below.

Table 4: Pass through balance reconciliation

Pass-through Balance Reconciliation 2017/18		
Term	Description	Value \$
<i>PTP_{2017/18} x Q_{2017/18}</i>	Pass-through Prices during 2017/2018 multiplied by 31 March 2018 Quantities	21,910,795
<i>Total Pass-through and Recoverable Costs</i>	Total Pass-through and Recoverable Costs for the year ending 31 March 2018	24,225,360
<i>PTB_{2017/18}</i>	Pass-through Balance for the Assessment Period ending 31 March 2018	(4,371,046)
<i>PTB_{2016/17}</i>	Pass-through Balance from previous Assessment Period	(1,938,431)
<i>Difference</i>	Reconciliation between Pass-through Balance for the Assessment Period with the Pass-through Balance for the preceding Assessment Period	(2,432,615)

When we set prices effective 1 April 2017 we forecast total pass-through and recoverable costs to be \$24 million our actual pass-through and recoverable costs were \$24.2 resulting in a small variation of -\$149,968 (or -1%). However, Table 4 above shows that our under recovery of pass-through and recoverable costs is material at -\$2.4 million (or -10%).

The material under recovery of pass-through and transmission costs shown above is mainly attributable to quantities in the 015LCA being 71.6 GWh (or 14%) lower than forecast. Lower than forecast quantities resulted in us under recovering \$4.4 million from customers in the 015 load groups, which accounts for approximately 86% of the total under recovery.

More information can be found in the Appendixes

Information on the calculation of pass-through and recoverable revenue can be found at Appendix B, Table 14, on page 16.

Information on the method used to calculate pass-through and recoverable costs can be found at Appendix C on page 19.

The proportion of distribution and pass-through and recoverable costs to total delivery charge can be found at Appendix D on page 26.

The methodology used to forecast pass-through and recoverable prices can be found at Appendix E on page 27.

3. Compliance with the Quality Path

Our year end performance was 38.86 SAIDI minutes below the SAIDI limit and 0.52 SAIFI interruptions below the SAIFI limit. Accordingly, we have complied with the quality path as specified by clause 9.1(a) of the Determination.

Clause 9.1 'Compliance with the quality standards' requires that:

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

- (a) Comply with the annual reliability assessment specified in clause 9.2 for that Assessment Period; or
- (b) Have complied with those annual reliability assessments for the two immediately preceding extant Assessment Periods.

Our compliance with the quality path, under clause 9.1(a), is shown in Table 5: Performance against the quality standards below.

Table 5: Performance against the quality standards

	SAIDI	SAIFI	Compliance
Compliance with 9.1(a)	Does not exceed limit	Does not exceed limit	<i>Complies</i>
2017/18 Assessment Period			
or			
Compliance with 9.1(b)			<i>Does not comply</i>
2016/17 Assessment Period	Does not exceed limit	Does not exceed limit	<i>Complies</i>
2015/16 Assessment Period	Exceeds limit	Does not exceed limit	<i>Does not comply</i>
Clause 9.1 Result:	<i>Complies with Quality Standard</i>		

Supporting evidence is presented in Appendices F to H.

Quality incentive scheme

Table 6: Quality incentive adjustment below shows that under the quality incentive scheme we have gained an \$277,270 incentive for our performance against the quality standards, which can be recovered as pass through prices in the assessment period ending 31 March 2020.

Table 6: Quality incentive adjustment

Quality Incentive Adjustment		
Term	Description	Value \$
S_{SAIDI}	SAIDI incentive	124,980
S_{SAIFI}	SAIFI incentive	152,290
S_{TOTAL}	SAIDI incentive plus SAIFI incentive	277,270

A more detailed calculation of the incentive gained/lost under the quality incentive scheme can be found at Appendix G on page 33.

There were two major event days

We experienced two major event days (MEDs) during the assessment period. The first MED was caused by a magpie that entered the Rangitata Substation on 9 June 2017 causing an interruption of 9.649 SAIDI minutes and 0.089 SAIFI interruptions. The second MED was caused by lightning and defective equipment (our breaker would not close following a Transpower planned outage and the disconnection of standby generation), on 26 October 2017 resulting in two interruptions of 3.11 and 1.08 SAIDI minutes and 0.0691 and 0.176 SAIFI interruptions respectively. The details on each MED are shown in Table 7 below.

Table 7: Causes of the major event days

Date	Cause	Total SAIDI minutes	No. of minutes SAIDI was reduced by	Total SAIFI interruptions	No. of interruptions SAIFI was reduced by
9 June	Magpie outside Rangitata Substation	9.649	0.474	0.089	0.017
26 October	Lightning and defective equipment	4.189	0.000	0.087	0.015

Assessed Values and Reliability Limits

Clause 9.2 'Annual reliability assessment' requires that:

A Non-Exempt EDB's Assessed Values for an Assessment Period must not exceed its Reliability Limits for that Assessment Period, such that:

$$\frac{SAIDI_{ASSESS,t}}{SAIDI_{LIMIT}} \leq 1 ; \text{ and}$$

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

We have come in under both the allowable SAIDI and SAIFI limits. Our assessed SAIDI and SAIFI calculations are demonstrated in Table 8 and Table 9 below.

Table 8: Assessed SAIDI calculation

Test:	$SAIDI_{Assess\ 2017/18} \leq SAIDI_{Limit}$	
SAIDI _{Assess 2017/18}	115.29	
SAIDI _{Limit}	154.16	
	0.75	< 1
Clause 9.1(a) Result:	<i>Does not exceed limit</i>	

Table 9: Assessed SAIFI calculation

Test:	$SAIFI_{Assess\ 2017/18} \leq SAIFI_{Limit}$	
SAIFI _{Assess 2017/18}	0.99	
SAIFI _{Limit}	1.51	
	0.66	< 1
Clause 9.1(a) Result:	<i>Does not exceed limit</i>	

Prior period reliability assessment

Our performance at the prior two extant Assessment Periods is shown in Table 10 and Table 11 below.

Table 10: Assessed Prior Period SAIDI and SAIFI performance

SAIDI	Assess 2016/17	133.47	SAIFI	Assess 2016/17	1.07
SAIDI	Limit 2016/17	154.16	SAIFI	Limit 2016/17	1.51
	0.87	< 1		0.71	< 1
	<i>Does not exceed limit</i>			<i>Does not exceed limit</i>	

Table 11: Assessed extant period SAIDI and SAIFI performance

SAIDI	Assess 2015/16	155.29	SAIFI	Assess 2015/16	1.18
SAIDI	Limit 2015/16	164.22	SAIFI	Limit 2015/16	1.69
	0.95	< 1		0.70	< 1
	<i>Does not exceed limit</i>			<i>Does not exceed limit</i>	

More information can be found in the Appendixes

Details on the quality standard compliance calculation can be found at Appendix F on page 31.

Our policies and procedures for recording SAIDI and SAIFI can be found at Appendix H on page 34.

4. Restructure of prices

We did not restructure our prices that applied during the assessment period.

5. Transactions

During the assessment period we did not:

- receive a transfer of transmission assets from Transpower that become System Fixed Assets, or transferred System Fixed Assets to Transpower; or
- amalgamate or merger with another regulated service; or
- undertake any major transactions.

6. Director Certification

I, Alister John France, being a director of Alpine Energy Limited certify that, having made all reasonable enquiry, to the best of my knowledge and belief, the attached Annual Compliance Statement of Alpine Energy Limited, and related information, prepared for the purposes of the *Electricity Distribution Services Price-Quality Path Determination 2015* are true and accurate.

A handwritten signature in black ink, appearing to read 'A. France', with a stylized, cursive script.

Alister John France
12 June 2018

7. Auditor's Report



INDEPENDENT ASSURANCE REPORT TO THE DIRECTORS OF ALPINE ENERGY LIMITED AND THE COMMERCE COMMISSION

The Auditor-General is the auditor of Alpine Energy Limited (the company). The Auditor-General has appointed me, Nathan Wylie, using the staff and resources of PricewaterhouseCoopers, to provide an opinion, on his behalf, on whether the Default Price Quality Path Compliance Statement ("the Annual Compliance Statement") for the year ended on 31 March 2018 on pages 1 to 10 and 15 to 35 has been prepared, in all material respects, with the Electricity Distribution Services Default Price-Quality Path Determination 2015 ("the Determination").

Directors' responsibilities for the Annual Compliance Statement

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

Our responsibility for the Annual Compliance Statement

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

Basis of opinion

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

These standards require that we comply with ethical requirements and plan and perform our assurance engagement to provide reasonable assurance about whether the Annual Compliance Statement has been prepared in all material respects in accordance with the Determination.

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

In assessing the disclosures about compliance with the price path in clause 8 of the Determination for the assessment period ended on 31 March 2018, our assurance engagement included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 1 to 4, pages 9 to 10 and pages 15 to 30 of the Annual Compliance Statement.

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In assessing the disclosures about compliance with the quality standards in clause 9 of the Determination for the assessment period ended on 31 March 2018, our assurance engagement included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 1 to 2, pages 5 to 8 and pages 31 to 35 of the Annual Compliance Statement.

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

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

Use of this report

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

Scope and inherent limitations

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

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

The opinion expressed in this independent assurance report has been formed on the above basis.

Independence and quality control

When carrying out the engagement, we complied with the Auditor-General's:

- independence and other ethical requirements, which incorporate the independence and ethical requirements of Professional and Ethical Standard 1 (Revised) issued by the New Zealand Auditing and Assurance Standards Board; and
- quality control requirements, which incorporate the quality control requirements of Professional and Ethical Standard 3 (Amended) issued by the New Zealand Auditing and Assurance Standards Board.

We also complied with the independent auditor requirements specified in the Determination.



The Auditor-General, and his employees, and PricewaterhouseCoopers and its partners and employees may deal with the company on normal terms within the ordinary course of trading activities of the company.

In addition to this engagement, we have performed the audit of the annual financial statements and assignments in the areas of compliance with the Electricity Distribution (Information Disclosure) Determination 2012, other regulatory requirements of the Commerce Act 1986, tax compliance services for an associate of the Group and other assurance services. Other than the audit and these assignments, we have no relationship with or interests in the Company or any of its subsidiaries.

Opinion

In our opinion:

- as far as appears from an examination, the information used in the preparation of the Annual Compliance Statement has been properly extracted from the company's accounting and other records, and has been sourced, where appropriate, from its financial and non-financial systems; and
- the Company has complied, in all material respects, with the Determination in preparing the Annual Compliance Statement for the assessment period ended 31 March 2018.

In forming our opinion, we have obtained sufficient recorded evidence and all the information and explanations we have required.

A handwritten signature in blue ink, appearing to read 'Nathan Wylie', written over a faint circular stamp.

Nathan Wylie
PricewaterhouseCoopers
On behalf of the Auditor-General
Christchurch, New Zealand
12 June 2018

Appendix A – Notional and Allowable Notional Revenue Calculations

Our notional and allowable notional revenue for the assessment period is shown in Table 12 and Table 13 respectively below.

Table 12: Notional Revenue

Notional Revenue 2017/18		
Term	Description	Value \$
$\Sigma DP_{2017/18} \times Q_{2015/16}$	Distribution Prices during 2017/18 multiplied by 31 March 2016 Quantities	40,600,718
$NR_{2017/18}$	Notional Revenue for the year ending 31 March 2018	40,600,718

Table 13: Allowable Notional Revenue Calculation

Allowable Notional Revenue 2017/18		
Term	Description	Value \$
$\Sigma DP_{2017} \times Q_{2016}$	Maximum Prices between 1 April 2016 and 31 March 2017 multiplied by 31 March 2016 Quantities	36,598,369
$ANR_{2016/17} - NR_{2016/17}$	Revenue differential for year ending 31 March 2017	609,226
$(1 + \Delta CPI_{2017/18})$	Average change in Consumer Price Index	1.00332
X	X Factor, as specified in Schedule 1 of the DPP Determination	-11.00%
$ANR_{2017/18}$	Allowable Notional Revenue for the period ended 31 March 2018	41,437,676

Appendix B – Calculation of distribution and pass-through and recoverable revenues

Our distribution price and the lagged quantities used to calculate the notional revenue is shown in Table 14 below.

Table 14: Prices and Quantities for Notional Revenue

Load group		Distribution 31 March 2018				Quantities - 31 March 2016				Notional Revenue DP18 x Q16
		Fixed per annum	Variable Day per kWh	Variable Night per kWh	Demand per kW per annum	Day kWh	Night kWh	Demand Demand kW	Avg Number of ICPs	
LOWHCA	Low User (controlled) high cost area	\$50.00	\$0.0693	\$0.0470	\$0.00	5,779,318	2,215,535		1,361	\$572,984
LOWLCA	Low User (controlled) low cost area	\$50.00	\$0.0644	\$0.0420	\$0.00	32,765,861	12,560,982		7,677	\$3,020,991
LOWUHCA	Low User (uncontrolled) high cost area	\$50.00	\$0.0693	\$0.0470	\$0.00	36,889	14,142		9	\$3,673
LOWULCA	Low User (uncontrolled) low cost area	\$50.00	\$0.0644	\$0.0420	\$0.00	90,174	34,569		23	\$8,383
015HCA	Single Phase (controlled) high cost area	\$310.20	\$0.0391	\$0.0167	\$0.00	53,342,714	20,449,238		5,963	\$4,275,917
015LCA	Single Phase (controlled) low cost area	\$269.36	\$0.0391	\$0.0167	\$0.00	122,642,328	47,015,645		13,790	\$9,292,937
015UHCA	Single Phase (uncontrolled) high cost area	\$308.88	\$0.0391	\$0.0167	\$0.00	25,927	9,939		34	\$11,681
015ULCA	Single Phase (uncontrolled) low cost area	\$269.36	\$0.0391	\$0.0167	\$0.00	2,358	904		46	\$12,498
360HCA	Three Phase (controlled) high cost area	\$1,648.74	\$0.0391	\$0.0167	\$0.00	9,671,936	3,707,793		462	\$1,200,825
360LCA	Three Phase (controlled) low cost area	\$1,213.49	\$0.0391	\$0.0167	\$0.00	14,425,590	5,530,133		699	\$1,503,781
360UHCA	Three Phase (uncontrolled) high cost area	\$1,615.30	\$0.0391	\$0.0167	\$0.00	308,679	118,334		14	\$36,655
360ULCA	Three Phase (uncontrolled) low cost area	\$1,202.29	\$0.0391	\$0.0167	\$0.00	205,786	78,889		9	\$20,181
ASSHCA	Assessed demand high cost area	\$463.66	\$0.0391	\$0.0167	\$51.51	85,505,491	32,779,024	98,908	1,201	\$9,541,062
ASSLCA	Assessed demand low cost area	\$263.57	\$0.0391	\$0.0167	\$33.00	22,535,002	8,638,923	33,621	360	\$2,229,260
TOU400HCA	Time-of-Use metering at 400 V high cost area	\$257.91	\$0.0153	\$0.0066	\$112.52	14,928,905	6,238,145	8,396	36	\$1,223,181
TOU400LCA	Time-of-Use metering at 400 V low cost area	\$183.69	\$0.0115	\$0.0049	\$83.66	66,576,892	30,123,127	23,043	105	\$2,863,183
TOU11HCA	Time-of-Use metering at 11 kV high cost area	\$249.57	\$0.0178	\$0.0076	\$96.73	15,581,630	5,819,948	6,177	6	\$921,500
TOU11LCA	Time-of-Use metering at 11 kV low cost area	\$198.07	\$0.0167	\$0.0071	\$73.86	8,648,654	3,690,721	4,280	4	\$487,560
Individually Priced	Customer 1	\$143,317							1	\$143,317
	Customer 2	\$1,777,210							2	\$1,777,210
	Customer 3	\$164,158							1	\$164,158
	Customer 4	\$1,041,461							1	\$1,041,461
	Customer 5	\$145,040							4	\$145,040
	Customer 6	\$103,280							3	\$103,280
						453,074,135	179,025,990	174,425	31,808	\$40,600,718

Our distribution price and the lagged quantities used to calculate the allowable notional revenue is shown in Table 15 below.

Table 15: Prices and Quantities for Allowable Notional Revenue

Load group		Distribution prices for the assessment period 31 March 2017				Quantities - 31 March 2016				Allowable Notional Revenue DP17 x Q16
		Fixed per annum	Variable Day per kWh	Variable Night per kWh	Demand per kW per	Day kWh	Night kWh	Demand Demand kW	Avg Number of ICPs	
LOWHCA	Low User (controlled) high cost area	\$50.01	\$0.0551	\$0.0426	\$0.00	5,779,318	2,215,535		1,361	\$480,854
LOWLCA	Low User (controlled) low cost area	\$50.01	\$0.0507	\$0.0384	\$0.00	32,765,861	12,560,982		7,677	\$2,527,459
LOWUHCA	Low User (uncontrolled) high cost area	\$50.01	\$0.0551	\$0.0426	\$0.00	36,889	14,142		9	\$3,085
LOWULCA	Low User (uncontrolled) low cost area	\$50.01	\$0.0507	\$0.0384	\$0.00	90,174	34,569		23	\$7,024
015HCA	Single Phase (controlled) high cost area	\$250.76	\$0.0349	\$0.0150	\$0.00	53,342,714	20,449,238		5,963	\$3,663,526
015LCA	Single Phase (controlled) low cost area	\$212.61	\$0.0349	\$0.0150	\$0.00	122,642,328	47,015,645		13,790	\$7,917,378
015UHCA	Single Phase (uncontrolled) high cost area	\$252.54	\$0.0349	\$0.0150	\$0.00	25,927	9,939		34	\$9,640
015ULCA	Single Phase (uncontrolled) low cost area	\$212.61	\$0.0349	\$0.0150	\$0.00	2,358	904		46	\$9,876
360HCA	Three Phase (controlled) high cost area	\$1,501.90	\$0.0349	\$0.0150	\$0.00	9,671,936	3,707,793		462	\$1,086,295
360LCA	Three Phase (controlled) low cost area	\$1,094.09	\$0.0349	\$0.0150	\$0.00	14,425,590	5,530,133		699	\$1,350,625
360UHCA	Three Phase (uncontrolled) high cost area	\$1,501.90	\$0.0349	\$0.0150	\$0.00	308,679	118,334		14	\$33,575
360ULCA	Three Phase (uncontrolled) low cost area	\$1,094.09	\$0.0349	\$0.0150	\$0.00	205,786	78,889		9	\$18,212
ASSHCA	Assessed demand high cost area	\$442.05	\$0.0349	\$0.0150	\$50.30	85,505,491	32,779,024	98,908	1,201	\$8,981,286
ASSLCA	Assessed demand low cost area	\$250.86	\$0.0349	\$0.0150	\$30.44	22,535,002	8,638,923	33,621	360	\$2,029,824
TOU400HCA	Time-of-Use metering at 400 V high cost area	\$236.37	\$0.0133	\$0.0057	\$111.47	14,928,905	6,238,145	8,396	36	\$1,178,532
TOU400LCA	Time-of-Use metering at 400 V low cost area	\$168.01	\$0.0105	\$0.0045	\$76.98	66,576,892	30,123,127	23,043	105	\$2,625,984
TOU11HCA	Time-of-Use metering at 11 kV high cost area	\$232.72	\$0.0153	\$0.0066	\$94.10	15,581,630	5,819,948	6,177	6	\$859,444
TOU11LCA	Time-of-Use metering at 11 kV low cost area	\$195.82	\$0.0130	\$0.0056	\$77.16	8,648,654	3,690,721	4,280	4	\$464,133
Individually Priced	Customer 1	\$140,069							1	\$140,069
	Customer 2	\$1,642,635							2	\$1,642,635
	Customer 3	\$160,368							1	\$160,368
	Customer 4	\$1,105,906							1	\$1,105,906
	Customer 5	\$199,652							4	\$199,652
	Customer 6	\$102,986							3	\$102,986
						453,074,135	179,025,990	174,425	31,808	\$36,598,369

Revenue recovered for pass-through and recoverable costs is shown in Table 16 below.

Table 16: Pass-through and Recoverable prices and quantities for the year ended 31 March 2018

Load group		Pass-through and Recoverable Costs				Quantities - 31 March 2018				Pass-through and Recovery PTP18 x Q18
		Fixed per annum	Variable Day per kWh	Variable Night per kWh	Demand per kW per	Day kWh	Night kWh	Demand Demand kW	Avg Number of ICPs	
LOWHCA	Low User (controlled) high cost area	\$4.75	\$0.0414	\$0.0234	\$0.00	6,498,819	2,785,208		1,515	\$341,297
LOWLCA	Low User (controlled) low cost area	\$4.75	\$0.0415	\$0.0235	\$0.00	35,269,883	15,115,664		8,696	\$1,861,477
LOWUHCA	Low User (uncontrolled) high cost area	\$4.75	\$0.0680	\$0.0500	\$0.00	67,400	28,886		14	\$6,093
LOWULCA	Low User (uncontrolled) low cost area	\$4.75	\$0.0681	\$0.0501	\$0.00	84,325	36,139		23	\$7,663
015HCA	Single Phase (controlled) high cost area	\$107.40	\$0.0316	\$0.0135	\$0.00	39,820,625	17,065,982		6,191	\$2,152,724
015LCA	Single Phase (controlled) low cost area	\$108.85	\$0.0316	\$0.0135	\$0.00	80,471,840	34,487,932		13,380	\$4,462,994
015UHCA	Single Phase (uncontrolled) high cost area	\$346.31	\$0.0316	\$0.0135	\$0.00	224,426	96,183		30	\$18,774
015ULCA	Single Phase (uncontrolled) low cost area	\$342.79	\$0.0316	\$0.0135	\$0.00	272,098	116,614		47	\$26,106
360HCA	Three Phase (controlled) high cost area	\$102.11	\$0.0316	\$0.0135	\$0.00	8,042,956	3,446,981		509	\$352,477
360LCA	Three Phase (controlled) low cost area	\$103.97	\$0.0316	\$0.0135	\$0.00	15,772,597	6,759,684		731	\$665,247
360UHCA	Three Phase (uncontrolled) high cost area	\$341.05	\$0.0316	\$0.0135	\$0.00	422,166	180,928		14	\$20,548
360ULCA	Three Phase (uncontrolled) low cost area	\$337.23	\$0.0316	\$0.0135	\$0.00	238,819	102,351		13	\$13,138
ASSHCA	Assessed demand high cost area	\$104.22	\$0.0316	\$0.0135	\$9.49	92,809,432	40,041,607	107,217	1,270	\$4,620,893
ASSLCA	Assessed demand low cost area	\$104.87	\$0.0316	\$0.0135	\$13.65	25,899,246	11,909,497	36,073	383	\$1,511,274
TOU400HCA	Time-of-Use metering at 400 V high cost area	\$103.51	\$0.0072	\$0.0031	\$50.77	16,450,066	7,006,839	8,473	38	\$574,236
TOU400LCA	Time-of-Use metering at 400 V low cost area	\$105.86	\$0.0070	\$0.0030	\$50.30	71,552,200	32,392,469	22,406	104	\$1,734,527
TOU11HCA	Time-of-Use metering at 11 kV high cost area	\$106.52	\$0.0088	\$0.0038	\$47.75	19,034,454	7,351,619	5,926	5	\$479,172
TOU11LCA	Time-of-Use metering at 11 kV low cost area	\$106.52	\$0.0104	\$0.0044	\$46.19	9,994,866	4,158,417	3,889	4	\$302,265
Individually Priced	Customer 1	\$256,937							1	\$256,937
	Customer 2	\$2,345,730							2	\$2,345,730
	Customer 3	(\$166,195)							1	(\$166,195)
	Customer 4	\$223,100							1	\$223,100
	Customer 5	\$66,407							4	\$66,407
	Customer 6	\$33,909							3	\$33,909
						422,926,217	183,082,999	183,984	32,975	\$21,910,795

Appendix C – Pass-through and Recoverable Costs

Information and method used to calculate pass through costs

Pass-through costs are made up of four parts:

- Rates on System Fixed Assets
- Commerce Act levies
- Electricity Authority levies
- Electricity and Gas Complaints Commission (EGCC) levies¹.

The pass-through costs are reported in Table 17 below.

Table 17: Reporting of pass-through costs

<i>K</i> _{2017/18}	Rates on system fixed assets for the year ending 31 March 2018	76,436
	Commerce Act levies for the year ending 31 March 2018	52,711
	Electricity Authority levies for the year ending 31 March 2018	138,026
	Electricity and Gas Complaints Commission levies for the year ending 31 March 2018	17,164

Rates are sourced from rates notices payable from July to June each year. To calculate the rates applicable between April and March, we add 25% of the rates applicable to the prior year with 75% of the rates applicable to the current year. For example, Table 18 below shows that for the period 1 July 2016 to 30 June 2017 rates payable to the Timaru District Council (TDC) were \$28,818. Recalculated for the period April 2017 to March 2018 rates payable to TDC were \$28,171.

Table 18: Calculation of rates

Compliance year	Timaru District Council	
	1 July to 30 June	1 April to 31 March
2011/12	\$ 13,876	
2012/13	\$ 15,428	\$ 15,040
2013/14	\$ 18,990	\$ 18,100
2014/15	\$ 19,667	\$ 19,498
2015/16	\$ 23,817	\$ 22,780
2016/17	\$ 26,232	\$ 25,628
2017/18	\$ 28,818	\$ 28,171

¹ The EGCC was incorporated as a limited liability not-for-profit company and rebranded as Utilities Disputes Limited on 1 November 2016. The determination refers to this pass through cost as the EGCC for this regulatory period.

Commerce Act levies are payable in accordance with the *Commerce (Levy on Suppliers of Regulated Goods and Services) Regulations 2009*. Suppliers are liable for the levy at the beginning of the regulatory year but, accounts are invoiced quarterly by MBIE as shown in Table 19 below.

Table 19: Calculation of the Commerce Act levies

Compliance year	2017/18 Invoiced
July - Quarter 1	\$ 13,185
November - Quarter 2	\$ 13,173
January - Quarter 3	\$ 13,173
March - Quarter 4	\$ 13,179
Total	\$ 52,711

Electricity Authority levies are sourced from invoices received during the year. The invoices received each month between April 2017, and March 2018 is shown in Table 20 below.

Table 20: Calculation of Electricity Authority levies

2017/18	Subtotal
April	\$ 11,113
May	\$ 11,537
June	\$ 10,031
July	\$ 10,177
August	\$ 11,035
September	\$ 11,094
October	\$ 11,425
November	\$ 13,362
December	\$ 13,804
January	\$ 12,733
February	\$ 10,758
March	\$ 10,955
	\$ 138,026

EGCC levies are invoiced once a year at end year (i.e., March). Amounts invoiced each year for the last five years are shown in Table 21 below.

Table 21: EGCC annual levies

Compliance year	Amount
2012/13	\$ 15,322
2013/14	\$ 12,021
2014/15	\$ 11,576
2015/16	\$ 14,217
2016/17	\$ 18,691
2017/18	\$ 17,164

Information and method used to calculate recoverable costs

Recoverable costs are made up of 13 components:

- Transmission charges
- New investment contract (NIC) charges
- System Operator services
- Avoided transmission charges resulting from the purchase of transmission asset from Transpower
- Distributed generation allowance
- Claw-back
- NPV Wash-up Allowance
- Energy efficiency and demand-side management incentive
- Catastrophic event allowance
- Extended reserves allowance
- Quality incentive adjustment
- Capex wash-up adjustment
- Reconsideration event allowance.

Table 22 below shows that in total we paid \$24 million in recoverable costs.

Table 22: Recoverable costs

V _{2017/18}	Actual (\$)
Transpower transmission charges	16,332,264
New investment contract charges	1,518,495
System operator services charges	-
Avoided transmission charges - purchases from Transpower	-
Distributed generation allowance	-
Claw-back	2,710,000
NPV wash-up allowance	2,899,000
Energy efficiency allowance	-
Catastrophic event allowance	-
Extended reserves allowance	-
Quality incentive adjustment	(75,737)
Capex wash-up adjustment	557,000
Reconsideration event allowance	-
Total Recoverable Costs	23,941,022

Transmission and **new investment** charges are sourced from monthly invoices received between April and March each assessment year. Over the period we paid \$16.3 million in transmission charges and \$1.5 million in new investment charges.

We entered a new investment contract for the Bells Pond T1 Connection on 10 July 2017. The assets were commissioned on 4 April 2018, and the new investment charges will take effect from 1 April 2019.

The calculation of total transmission charges is shown in Table 23 over the page.

Table 23: Calculation of the transmission charges

Month	Monthly Connection Charge	Monthly Interconnection Charge	Monthly HVDC Charge	Total Transmission Charges	New Investment Charges
April	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,422
May	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,422
June	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,422
July	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
August	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
September	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
October	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
November	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
December	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
January	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
February	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
March	\$ 230,775	\$ 1,111,305	\$ 18,942	\$ 1,361,022	\$ 126,581
Total	\$ 2,769,300	\$ 13,335,660	\$ 227,304	\$ 16,332,264	\$ 1,518,495

Amount to be recovered for **claw-back** each year is specified in Schedule 5C of the DPP Determination; as per Extract 1 below.

Extract 1: Copy of Schedule 5C of the DPP Determination

Table 5C.1: Claw-back amounts to be applied by specified Non-exempt EDBs in each Assessment Period

(All amounts in \$000)

Non-exempt EDB	Assessment Period				
	2015/16	2016/17	2017/18	2018/19	2019/20
Alpine Energy Limited	2,408	2,555	2,710	2,875	3,050
Centralines Limited	397	422	447	474	503
Top Energy Limited	1,554	1,649	1,749	1,855	1,968
Unison Networks Limited	2,009	2,132	2,262	2,399	2,545

The amount to be recovered for **Net present value (NPV) wash-up allowance** is specified in Schedule 5D of the DPP Determination; as Extract 2 below.

Extract 2: Copy of Schedule 5D of the DPP Determination**Table 5D.1: 2013-15 NPV Wash-up Allowances to be applied by specified Non-exempt EDBs in each Assessment Period**

(All amounts in \$'000)

Non-exempt EDB	Assessment Period				
	2015/16	2016/17	2017/18	2018/19	2019/20
Alpine Energy Limited	2,576	2,733	2,899	3,076	3,263
Centralines Limited	231	245	259	275	292
Top Energy Limited	578	614	651	691	733

The **Quality incentive adjustment** for the year ending 31 March 2016 of \$67,291 is adjusted for the time value of money to \$75,737 as shown in Extract 3 below and included as a recoverable cost for the assessment period ending 31 March 2018.

Extract 3: Quality incentive adjustment 2017

Quality incentive adjustment	
Quality incentive adjustment 2016	-\$67,291
Cost of debt	6.09%
Quality incentive adjusted for time value of money	(75,737)

The **Capex wash-up adjustment** for the year ending 31 March 2017 is \$557,000 as shown in Extract 4 over the page.

Extract 4: Copy of Capex wash-up adjustment**Input**

EDB name	Alpine Energy
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Reference: 2015-20 DPP financial model

Forecast value of commissioned assets, 2014/15	12,883
PV at 1 Apr 2015 of BBAR before tax over the regulatory period	163,099
Cost of debt	6.09%

Reference: 2014/15 information disclosure

Actual value of commissioned assets, 2014/15	18,705
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Calculation: using actual commissioned asset value

PV at 1 Apr 2015 of BBAR before tax over the regulatory period	165,019
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Outputs: capex wash-up adjustment recoverable costs

2017	525
2018	557
2019	590
2020	626

The amount was sourced from the Commerce Commission's model *EDB capex wash-up adjustment recoverable cost calculation sheet - 11 December 2015*², by selecting Alpine Energy in the EDB Name drop down box on the *Capex wash-up adjustment* tab.

Seven of the 13 recoverable costs for the year ended 31 March 2018 is nil. The reasons for a nil value are provided in Table 24 over the page.

² A copy of the Commission's Capex wash-up model can be found on its website at <http://www.comcom.govt.nz/regulated-industries/electricity/electricity-default-price-quality-path/default-price-quality-path-from-2015/>

Table 24: Recoverable costs with zero values explained

Recoverable cost	Explanation
System operator services charged for the year	The Transpower system operator is accounted for in Transmission Charges and New Investment Charges. Therefore, system operator costs are nil for the period
Energy efficiency and demand-side management incentive allowance	No later than 70 WD following the end of the Assessment period, we must submit an application for approval of an allowance. If approved the amount is added to the pass-through balance in the next pricing year.
Distributed generation allowance	
Extended reserves allowance	
Avoided transmission charges resulting from the purchase of transmission asset from Transpower	We will not have a figure to report here unless we buy transmission assets. If we were to buy transmission assets, we would then calculate the avoided transmission costs for each Assessment Period and then recover that each year.
Catastrophic event allowance	Does not apply to us as we have not reported a catastrophic event this regulatory period.
Reconsideration event allowance	This does not currently apply to Alpine Energy.

Cost of debt

The cost of debt is 6.09% as shown in Table 25 below. The cost of debt is applied by the DPP Determination and is set by the commission through its Input Methodologies.

Table 25: Cost of debt

r	Cost of Debt	6.09%
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Appendix D – Portion of distribution and pass-through and recoverable costs

Table 26 shows the proportion of total delivery prices made up of distribution and pass through and recoverable costs.

Table 26: Distribution and Pass-through and Recoverable price components of total Delivery Charges

Load group		Distribution as at 31 March 2018				Pass-through and Recoverable Costs			
		Fixed per annum	Variable Day per kWh	Variable Night per kWh	Demand per kW per annum	Fixed per annum	Variable Day per kWh	Variable Night per kWh	Demand per kW per annum
LOWHCA	Low User (controlled) high cost area	91%	63%	67%	0%	9%	37%	33%	0%
LOWLCA	Low User (controlled) low cost area	91%	61%	64%	0%	9%	39%	36%	0%
LOWUHCA	Low User (uncontrolled) high cost area	91%	50%	48%	0%	9%	50%	52%	0%
LOWULCA	Low User (uncontrolled) low cost area	91%	49%	46%	0%	9%	51%	54%	0%
015HCA	Single Phase (controlled) high cost area	74%	55%	55%	0%	26%	45%	45%	0%
015LCA	Single Phase (controlled) low cost area	71%	55%	55%	0%	29%	45%	45%	0%
015UHCA	Single Phase (uncontrolled) high cost area	47%	55%	55%	0%	53%	45%	45%	0%
015ULCA	Single Phase (uncontrolled) low cost area	44%	55%	55%	0%	56%	45%	45%	0%
360HCA	Three Phase (controlled) high cost area	94%	55%	55%	0%	6%	45%	45%	0%
360LCA	Three Phase (controlled) low cost area	92%	55%	55%	0%	8%	45%	45%	0%
360UHCA	Three Phase (uncontrolled) high cost area	83%	55%	55%	0%	17%	45%	45%	0%
360ULCA	Three Phase (uncontrolled) low cost area	78%	55%	55%	0%	22%	45%	45%	0%
ASSHCA	Assessed demand high cost area	82%	55%	55%	84%	18%	45%	45%	16%
ASSLCA	Assessed demand low cost area	72%	55%	55%	71%	28%	45%	45%	29%
TOU400HCA	Time-of-Use metering at 400 V high cost area	71%	68%	68%	69%	29%	32%	32%	31%
TOU400LCA	Time-of-Use metering at 400 V low cost area	63%	62%	62%	62%	37%	38%	38%	38%
TOU11HCA	Time-of-Use metering at 11 kV high cost area	70%	67%	67%	67%	30%	33%	33%	33%
TOU11LCA	Time-of-Use metering at 11 kV low cost area	65%	62%	62%	62%	35%	38%	38%	38%

Appendix E – Methodology used to forecast prices

Distribution prices

We recover our costs to serve each load group (e.g., 015HCA) via our distribution prices. The cost to serve consumers that use low voltage assets is allocated to load groups based on after diversity maximum demand (ADMD). Costs to serve consumers that use high voltage assets are allocated to load groups based on coincident peak demand (CPD).

Pass-through costs

We base our forecast pass-through costs on the prior year rates and levies plus a growth factor. The growth factor for rates, Electricity Authority levies and Utility Disputes is based on the five year average. For example, the method used to forecast rates is shown in Table 27 below.

Table 27: Forecast 2017/18 Rates

Council	2015/16 1 July to 30 June	Growth	2017/18 1 July to 30 June	2017/18 1 April to 1 March
Timaru District Council	\$23,817	21.10%	\$32,404	\$30,257
Environment Canterbury	\$18,915	-4.21%	\$18,718	\$18,767
Mackenzie District Council	\$11,209	0.18%	\$11,531	\$11,450
Waimate District Council	\$ 9,756	-5.50%	\$10,537	\$10,172
Total	\$70,004		\$73,010	\$70,647

Rates are unique in that rates are 1 July to 30 June rather than 1 April to 31 March. To forecast rates, we first take the rates paid in 2015/16 between 1 July to 30 June and forecast what the rates payable will be between 1 July to 30 June 2016/17 and 2017/18. The 2016/17 rates forecast are based on the 2015/16 actual plus the average 5 year growth. The 2017/18 rates forecast are based on the 2016/17 forecast plus the average 5 year growth.³

We then calculate the forecast rates for 1 April to 31 March 2017/18 by adding the last quarter of the 2015/17 and the first three quarters of 2017/18. For example, TDC is $((\$23,817 \times 0.25\%) + (\$32,404 \times 0.75\%)) = \$30,257$.

Commerce Act levies are forecast by taking the prior year levies and raising it by the percentage increase in our regulatory asset base (RAB). For example, the 2017/18 forecast Commerce Commission levies were based on the 0.04% growth in the RAB multiplied by the

³ Please note that we use the 2015/16 actuals as the 2016/17 year had not ended when the 2017/18 prices are set and accordingly, 2015/16 are the most recent actuals available to us.

2015/16 actual levies of \$54,057. Accordingly, the calculation for the 2017/18 forecast is $(\$54,034 \times (1 + 0.04\%)) = \$54,057$.

Recoverable costs

We receive notice of transmission charges from 1 April usually in mid- November of the prior year. We base our forecast transmission charges on the notices given. The commission sets both our claw-back and NPV wash-up allowance amounts in the DPP Determination we base our forecast claw-back and NPV wash-up allowance amounts on the published amounts.

More detail on the methodologies that we use to forecast pass-through and recoverable prices can be found in our *Pricing Methodology for Delivery Charges, effective as at 1 April 2017*. A copy of our Pricing Methodology is available at Reception and/or can be found on our website⁴.

Pass-through Cost reconciliation

Pass through variances are shown in Table 28 below.

Table 28: Pass-through Variances

Pass-through Costs for year ending March 2018				
K _{2017/18}	Actual (\$)	Forecast (\$)	Variance (\$)	Variance (%)
Rates on system fixed assets	76,436	70,647	5,790	8.2%
Commerce Act levies	52,711	54,057	(1,346)	(2.5%)
Electricity Authority levies	138,026	151,639	(13,613)	(9.0%)
Electricity and Gas Complaints Commission	17,164	15,276	1,888	12.4%
Total Pass-through Costs	284,337	291,619	(7,281)	(2.5%)

Explanation of material variances

The Commission does not specify what 'material' is and so it is left up to EDBs to determine materiality. As a general rule, we assess anything with a variance of more than 5%.

Materiality is then established based on the variance in whole dollars and as a percentage before a decision is made to determine a variance material and an explanation provided.

For example, **Rates on system fixed assets** have a variance of \$5,790 or 8.2%. Comparing the dollar variance to the total pass-through costs, we establish that this variance is immaterial at 2%. The **Electricity Authority levies** have a variance of -\$13,613 or -9.0%. Comparing the dollar variance to the total pass-through costs, we establish that this variance is immaterial at -4.8%. Whereas **Electricity and Gas Complaints Commission (EGCC)** levies have a variance of \$1,888 or 12.4%. Comparing the dollar variance to the total pass-through costs, we establish that this is an immaterial variance at 3%.

The overall variance is immaterial and requires no further explanation.

⁴ <http://www.alpineenergy.co.nz/disclosures>

Recoverable cost reconciliation

Recoverable cost variances are shown in Table 29 below.

Table 29: Recoverable Costs Variances

Recoverable Costs for year ending March 2018				
V _{2017/18}	Actual (\$)	Forecast (\$)	Variance (\$)	Variance (%)
Transpower transmission charges	16,332,264	16,332,265	(1)	(0.0%)
New investment contract charges	1,518,495	1,775,217	(256,722)	(14.5%)
System operator services charges	-	-	-	0.0%
Avoided transmission charges - purchases from Transpower	-	-	-	0.0%
Distributed generation allowance	-	-	-	0.0%
Claw-back	2,710,000	2,710,000	-	0.0%
NPV wash-up allowance	2,899,000	2,899,000	-	0.0%
Energy efficiency allowance	-	-	-	0.0%
Catastrophic event allowance	-	-	-	0.0%
Extended reserves allowance	-	-	-	0.0%
Quality incentive adjustment	(75,737)	67,291	(143,028)	(212.6%)
Capex wash-up adjustment	557,000	-	557,000	0.0%
Reconsideration event allowance	-	-	-	0.0%
Total Recoverable Costs	23,941,022	23,783,773	157,249	0.7%

The **New investment contract charges** were -\$256,722 or -14.5% less than forecast. The forecast was based on the average of the first six months charges released by Transpower in November 2016. The charges were forecast to be \$147,935, and the actual was \$126,581 which resulted in a variance of \$21,534 per month.

The **Quality incentive adjustment** is -\$143,208 (or 212.6%) higher than what we forecast. We forecast the Quality Incentive adjustment by using the quality incentive adjustment from the 2016 Annual Compliance Statement as shown in Extract 5 below.

Extract 5: Quality Incentive adjustment 2016

Quality Incentive Adjustment		
Term	Description	Value \$
S_{SAIDI}	SAIDI incentive	-152,290
S_{SAIFI}	SAIFI incentive	84,999
S_{TOTAL}	SAIDI incentive plus SAIFI incentive	-67,291

The variance is because when we flowed the forecast quality incentive adjustment into our prices as at 1 April 2017 by using the formula -\$67,291 this had the effect of treating the incentive as revenue gained rather than revenue lost. The intention was that we would return the \$67,291 through our prices however, the effect of the error was to recover the \$67,291 through our prices and causing the material variance shown above at Table 29.

The impact on customers of this error is not material (i.e. 0.3% of pass through and recoverable costs). And all care will be taken in the future to ensure that similar mistakes do not occur.

The 100% variation in the **Capex wash-up adjustment** is because we inadvertently did not include a forecast for capex wash-up when we set prices effective 1 April 2017. This omission was brought to our attention when we completed our 2016 Annual Compliance Statement, but because we set prices effective 1 April 2017 in November 2016 it was too late to correct for the omission in the 1 April 2017 prices. The capex wash-up adjustment oversight was corrected when we set prices effective 1 April 2018.

feeders off the sub for a Transpower planned outage meant more customers were affected. The second MED was caused by lightning and the 110kV Transpower outage, which tripped our 33kV breaker requiring protection settings to be altered and took some time to get back on.

Table 33 below shows the pre-normalised SAIDI minutes, and Table 34 below shows the pre-normalised SAIFI interruption for the MED experienced.

Table 33: Event Days exceeding SAIDI Boundary Value

Date	Pre-Normalised unplanned SAIDI	Normalised unplanned SAIDI
9-Jun-17	9.649	9.175

Table 34: Event Days exceeding SAIFI Boundary Value

Date	Pre-Normalised unplanned SAIFI	Normalised unplanned SAIFI
9-Jun-17	0.089	0.072
26-Oct-17	0.087	0.072

Prior period assesses values

Prior period assed values are shown in Table 35 below.

Table 35: Prior period assed values

Assessed SAIDI Value 2016/17		
SAIDI _{2016/17}	133.469	The sum of daily SAIDI Values in the 1 April 2016 to 31 March 2017 Normalised Assessment Dataset
Assessed SAIFI Value 2016/17		
SAIFI _{2016/17}	1.065	The sum of daily SAIFI Values in the 1 April 2016 to 31 March 2017 Normalised Assessment Dataset
Assessed SAIDI Value 2015/16		
SAIDI _{2015/16}	155.292	The sum of daily SAIDI Values in the 1 April 2015 to 31 March 2016 Normalised Assessment Dataset
Assessed SAIFI Value 2015/16		
SAIFI _{2015/16}	1.180	The sum of daily SAIFI Values in the 1 April 2015 to 31 March 2016 Normalised Assessment Dataset

Appendix G – Quality incentive scheme

This assessment period is the third period that the quality incentive scheme applies. Under the scheme, we have gained a \$277,270 incentive for our performance against the quality standards. The incentive may be collected from customers via pass-through prices effective as at 1 April 2019. Table 36 below details the SAIDI incentive calculation.

Table 36: SAIDI Incentive

SAIDI Incentive		
Term	Description	Value
<i>SAIDI Target</i>	SAIDI target specified in DPP Determination	132.8088
<i>SAIDI Collar</i>	SAIDI incentive range collar specified in DPP Determination	111.4627
<i>SAIDI Cap</i>	SAIDI incentive range cap specified in DPP Determination	154.1549
<i>MAR</i>	Maximum allowable revenue as per Schedule 1.1	\$30,458,000
$0.5 \times REV_{RISK}$	Revenue at risk relating to SAIDI target (equal to 0.5% of MAR)	\$152,290
<i>SAIDI_{IR}</i>	SAIDI incentive rate per unit (equal to revenue at risk divided by Cap minus Target)	\$7,134
<i>SAIDI_{ASSESS}</i>	Assessed SAIDI value for purpose of incentive	115.2906
<i>S_{SAIDI}</i>	SAIDI incentive adjustment (equal to incentive rate multiplied by SAIDI target minus Assessed SAIDI value)	\$124,980

Table 37 below details the SAIFI incentive calculation.

Table 37: SAIFI Incentive

SAIFI Incentive		
Term	Description	Value
<i>SAIFI Target</i>	SAIFI target specified in DPP Determination	1.2973
<i>SAIFI Collar</i>	SAIFI incentive range collar specified in DPP Determination	1.0874
<i>SAIFI Cap</i>	SAIFI incentive range cap specified in DPP Determination	1.5071
<i>MAR</i>	Maximum allowable revenue as per Schedule 1.1	\$30,458,000
$0.5 \times REV_{RISK}$	Revenue at risk relating to SAIFI target (equal to 0.5% of MAR)	\$152,290
<i>SAIFI_{IR}</i>	SAIFI incentive rate per unit (equal to revenue at risk divided by Cap minus Target)	\$725,882
<i>SAIFI_{ASSESS}</i>	Assessed SAIFI value for purpose of incentive	1.0874
<i>S_{SAIFI}</i>	SAIFI incentive adjustment (equal to incentive rate multiplied by SAIFI target minus Assessed SAIFI value)	\$152,290

Appendix H – Policies and Procedures for Recording SAIDI and SAIFI

We apply the following policies and procedures to record our SAIDI and SAIFI:

- all planned and unplanned outages 3.3kV and above are recorded
- outages less than 1 minute are reported but do not affect SAIDI and SAIFI
- outages are recorded on 'Interruption to Supply' forms by the Network Operator
- the ICP database is interrogated for consumer numbers in the outage area
- monthly reports are prepared for executive management and the Board.

Figure 1 over page outlines our process for recording outages.

Figure 1: Process for recording outages