Orion New Zealand Limited
Customised Price-Quality Path
Determination 2013

Compliance statement

For the year ending 31 March 2018

Issued 28 May 2018

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INTRODUCTION

1 Orion New Zealand Limited (Orion) owns and operates the electricity distribution network in central Canterbury between the Waimakariri and Rakaia rivers, and from the Canterbury coast to Arthur's Pass. Our network covers 8,000 square kilometres of diverse geography, including Christchurch city, Banks Peninsula, farming communities and high country regions. We receive electricity from Transpower's national grid at seven separate locations and we distribute this electricity to more than 200,000 homes and businesses.

2 We charge electricity retailers on a wholesale basis for this delivery service. Retailers, in turn, include this cost in their retail electricity prices - our delivery charges, including Transpower's charges, typically amount to around 40% of a household's electricity bill.

3 As a natural monopoly service provider, we are subject to government regulation under the Commerce Act 1986. Pursuant to the requirements of this Act, the Commerce Commission has set a regulatory framework that includes information disclosure regulations, default price-quality paths (DPP) and the option for distribution businesses to apply for a customised price-quality path (CPP).

4 In February 2013, to recognise the impact of the Canterbury earthquakes on our costs and supply quality, Orion applied for a customised price-quality path. Following our application and wider consultation, the Commerce Commission issued a customised price path determination (the CPP determination) on 28 November 2013 that applies to Orion and sets out a price and quality path for the period from 1 April 2014 to 31 March 2019.

5 This statement has been prepared to demonstrate our compliance, or otherwise, with the requirements in the CPP determination. Specifically, this compliance statement covers the information requirements detailed in clause 10 of the CPP determination for the year ended 31 March 2018.

COMPLIANCE STATEMENTS

Price path statement

6 This year we **complied with** our price path limit, with notional revenue falling $141.6k below our allowable notional revenue of $170,032.7k, calculated in accordance with clause 7.5 and schedule 1B of the CPP determination.

Quality standard statement

7 This year we doubly **complied with** our reliability limit, complying with the annual reliability assessment in the current assessment period, as well as complying with the reliability assessment for the two preceding assessment periods.

8 For the current assessment period our results were:

8.1 SAIDI (duration of outages) of 79.05, 3.35 below our limit of 82.4, and

8.2 SAIFI (frequency of outages) of 1.00, 0.02 below our limit of 1.02.

Price structure statement

9 We have not restructured our prices during the assessment period. However, we did restructure our prices during the previous assessment period. As a result, several of the quantities that are referenced from two years prior do not relate to our current prices. Consistent with last year, we have taken the approach described in clause 7.7 and we have been able to establish appropriate prior quantities that reasonably relate to the restructured prices based on quantities that were either charged or measured, and use these to demonstrate compliance. We have not established alternative quantities.

Transaction statements

10 During the assessment period, we:

10.1 have not been involved in an amalgamation or merger, and

10.2 have not been involved in a transfer of assets governed by clause 9.3 of the CPP determination.

11 We prepared and approved this compliance statement on 28 May 2018.

12 Full details supporting the statements above are included in this compliance statement.

PRICE PATH SUPPORTING INFORMATION

13 Clause 7.5 of the CPP determination requires that notional revenue (NR_t) does not exceed allowable notional revenue (ANR_t) for the assessment period, as expressed by the following condition:

$$\frac{NR_t}{ANR_t} \leq 1$$

Notional revenue

14 Using the definitions provided in clause 7.5, notional revenue is evaluated as:

$$NR_t = \sum_i P_{i,t} Q_{i,t-2} - K_t - V_t$$

where t denotes the year in which the assessment period ends, that is 2018, giving:

$$NR_{2018} = \sum_i P_{i,2018} Q_{i,2016} - K_{2018} - V_{2018}$$

where $\sum_i P_{i,2018} P_{i,2016}$ is the sum of each (i^{th}) price during any part of the assessment period pertaining to electricity lines services, multiplied by the corresponding quantity for 2016. This expression is evaluated as $251,966.8k in the worksheet on page 8 titled notional charges worksheet,

K_{2018} is the sum of all pass-through costs for the assessment period. This expression is evaluated as $4,743.8k in the worksheet on page 11 titled *pass through costs, and*

V_{2018} is the sum of all recoverable costs for the assessment period. This expression is evaluated as $77,331.8k in the worksheet on page 10 titled *recoverable costs,*

$$\therefore NR_{2018} = \$251{,}966.8k - \$4{,}743.8k - \$77{,}331.8k$$

$$= \$169{,}891.1k$$

Allowable notional revenue

15 Allowable notional revenue is defined in clause 7.5 and schedule 1B of the CPP determination as:

$$ANR_t = \left(\sum_i P_{i,t-1}Q_{i,t-2} - (K_{t-1} + V_{t-1}) + (ANR_{t-1} - NR_{t-1})\right)(1 + \Delta CPI_t)(1 - X)$$

where t denotes the year in which the assessment period ends, that is 2018, giving:

$$ANR_{2018} = \left(\sum_i P_{i,2017}Q_{i,2016} - (K_{2017} + V_{2017}) + (ANR_{2017} - NR_{2017})\right)$$

$$\times (1 + \Delta CPI_{2018})(1 - X)$$

where $\sum_i P_{i,2017}P_{i,2016}$ is the sum of each (i^{th}) price during any part of the assessment period ending in 2017, multiplied by the corresponding quantity for 2016. This expression is evaluated as $252,044.8k in the worksheet on page 9 titled *prior notional charges worksheet*,

$K_{2017} + V_{2017}$ is the sum of all pass-through and recoverable costs for the assessment period ending in 2017. This was evaluated as $4,548.1k and $79,940.4k respectively in our previous Customised Price Path Compliance Statement. The components making up these amounts are also shown alongside the current year's figures in the tables on page 10 and 11 of this compliance statement,

$ANR_{2017} - NR_{2017}$ is the difference between allowable notional revenue and notional revenue for the assessment period ending in 2017. This was evaluated as $235.9k in our previous Customised Price Path Compliance Statement,

$1 + \Delta CPI_{2018}$ is the derived change in CPI to be applied for the current assessment period. Stats NZ re-based its CPI index in June 2017, setting the index for that quarter to a base of 1000. At the same time the prior period figures were restated relative to this new base, and we have calculated the CPI movement using the re-based index:

$$= \frac{CPI_{Dec,2015} + CPI_{Mar,2016} + CPI_{Jun,2016} + CPI_{Sep,2016}}{CPI_{Dec,2014} + CPI_{Mar,2015} + CPI_{Jun,2015} + CPI_{Sep,2015}} - 1$$

$$= \frac{977 + 979 + 983 + 986}{976 + 975 + 979 + 982} - 1$$

$$= 0.332\%$$

1-X is the rate of change specified in clause 7.2 of the determination as -1% (ie 1-X = 1.01)

$$\therefore ANR_{2018} = (\$252{,}044.8\text{k} - \$4{,}548.1\text{k} - \$79{,}940.4\text{k} + \$235.9\text{k})(1.00332)(1.01)$$

$$= \$170{,}032.7\text{k}$$

16 Substituting the values calculated above in the price path condition gives:

$$\frac{NR_{2018}}{ANR_{2018}} = \frac{\$169{,}891.1\text{k}}{\$170{,}032.7\text{k}} = 0.9992 < 1$$

17 Our notional revenue is $141.6k less than our allowable notional revenue and, as the condition is satisfied, we comply with the price requirement specified in clause 7.5 of the CPP determination.

Restructuring of prices

18 We restructured some of our prices from the start of the prior assessment period, on 1 April 2016. While not a major change, the new prices are not directly aligned with the quantities that were applied two years ago, and referenced for use in the calculation of notional revenue.

19 To establish both allowable notional revenue and comparable notional revenue for the purpose of the compliance test it is necessary to establish chargeable quantities for the new structure at a level equivalent to that which would have applied had the new structure been in place in FY16.

20 In all cases the new price structure uses chargeable quantity metrics that were already used in charging, or are available to be measured. So quantities that reasonably relate to the new restructured prices are easily quantified.

21 The following table sets out each new restructured price, the basis for establishing the quantity, and the quantity itself.

New restructured price	Description of change	Basis for quantity
General volume pricing	Public holidays are now charged at the weekday rate rather than the weekend rate.	The volume charged on public holidays has been specifically identified as 43,163.7 MWh. This has been deducted from the nights and weekends charge and added to the weekday charge.
Major fixed charge	All standard and secondary connections are now charged at the same price.	The quantity has been set to 385 connections, being the sum of the previously separate 373 standard and 12 secondary connections.
Major nominated maximum demand charge	This replaces the previous assessed capacity distribution charge, and the measurement now includes peaks that might occur during holidays, weekends and night loads, peak export, and it is also updated monthly (rather than set for a year).	We individually assessed the quantity that would have applied to each major customer if the pricing had been in place in FY16. The revised basis increased the quantity by a small amount from 204,664.2 kVA to 208,232.5 kVA.
Major metered maximum demand charge	This replaces the previous assessed capacity transmission charge, and the measurement now includes peaks that might occur during holidays.	We individually assessed the quantity that would have applied to each major customer if the pricing had been in place in FY16. The revised basis increased the quantity by a small amount from 199199.2 kVA to 199,056.4 kVA.
Major extra switch charge	This replaces the 20 individual and separately priced switchgear charges, effectively charging all switches at the same price.	We set the quantity to the sum of the number of different switches applied in FY16, 110.83 items.
Metering equipment	This is a simple per-connection charge for metering equipment and replaces the separate CT, VT, integrated CT/VT, and test block charges that we previously applied.	The quantity is set to the number of connections where metering was provided in FY16, 62.33 connections.
Transformer capacity	This uses a “per kVA” basis and replaces the 17 separate prices that we previously maintained for different transformer sizes	The quantity is set to the sum of the kVA (by size of transformer) charged for in FY16, 243,558.7 kVA

Notional charges worksheet

$\sum_i P_{i,t} Q_{i,t-2}$ Components (i)	Assessed delivery prices ($P_{i,2018}$)		Quantities ($Q_{i,2016}$)	Days applicable	($000) Notional annual delivery charges ($P_{i,2018} \times Q_{i,2016}$)
Days in quantity year				366	
Streetlighting, general and irrigation connections					
Streetlighting fixed charge	0.1129	$/con/day	46,228.6 cons	366 days	1,910.2
Streetlighting and general connections Peak charge (peak period demand)	0.5310	$/kW/day	482,845.6 kW	366 days	93,839.1
Streetlighting, general and irrigation connections volume charge					
Weekdays (Mon to Fri, 7am - 9pm)	0.08773	$/kWh	1,142,134 MWh		100,199.4
Nights, weekends (Sat & Sun)	0.01125	$/kWh	1,314,363 MWh		14,786.6
General connections					
Low power factor charge	0.2000	$/kVAr/day	0.0 kVAr	366 days	0.0
Irrigation connections					
Capacity charge	0.4197	$/kW/day	77,725.4 kW	183 days	5,969.7
Power factor correction rebate	(0.1793)	$/kVAr/day	26,913.7 kVAr	183 days	(883.1)
Interruptibility rebate	(0.0448)	$/kW/day	46,474.5 kW	183 days	(381.0)
Major customer connections and embedded networks					
Fixed charge	1.8900	$/con/day	384.60 cons	366 days	266.0
Extra switches	3.5400	$/switch/day	110.80 switches	366 days	143.6
11k Metering equipment	4.2900	$/con/day	62.30 cons	366 days	97.8
11kV Underground cabling	3.1700	$/km/day	2.00 km	366 days	2.3
11kV Overhead lines	2.0000	$/km/day	3.20 km	366 days	2.3
Transformer capacity	0.0133	$/kVA/day	243,696.50 kVA	366 days	1,186.3
Peak charge (control period demand)	0.4857	$/kVA/day	97,604.60 kVA	366 days	17,350.8
Nominated maximum demand	0.1049	$/kVA/day	208,232.50 kVA	366 days	7,994.8
Metered maximum demand	0.0848	$/kVA/day	199,056.40 kVA	366 days	6,178.1
Large capacity connections					
Ops, maint & admin (dedicated assets)	5.08	$/kVA/year	12,000.0 kVA	366 days	61.0
Ops, maint & admin (shared assets)	22.58	$/kVA/year	9,853.0 kVA	366 days	222.5
Asset charge (dedicated assets)	8.94	$/kVA/year	12,000.0 kVA	366 days	107.3
Asset charge (shared assets)	41.16	$/kVA/year	9,853.0 kVA	366 days	405.5
Interconnection charge (winter)	69.14	$/kVA/year	1,997.2 kVA	366 days	138.1
Interconnection charge (summer)	56.36	$/kVA/year	6,809.1 kVA	366 days	383.8
Connection charge	6.89	$/kVA/year	6,809.1 kVA	366 days	46.9
Ops, maint & admin (dedicated assets)	6.52	$/kVA/year	13,000.0 kVA	366 days	84.8
Ops, maint & admin (shared assets)	9.34	$/kVA/year	11,782.8 kVA	366 days	110.1
Asset charge (dedicated assets)	16.13	$/kVA/year	13,000.0 kVA	366 days	209.7
Asset charge (shared assets)	23.14	$/kVA/year	11,782.8 kVA	366 days	272.7
Interconnection charge (winter)	67.46	$/kVA/year	1,158.6 kVA	366 days	78.2
Interconnection charge (summer)	54.99	$/kVA/year	9,814.1 kVA	366 days	539.7
Connection charge	1.66	$/kVA/year	9,814.1 kVA	366 days	16.3
Customer investment contract charge	60.21	$/kVA/year	13,000.0 kVA	366 days	782.7
Export and generation (distribution part only)					
Real power component	(0.0906)	$/kW/day	2,353.5 kW	366 days	(78.0)
Reactive power component	(0.0298)	$/kVAr/day	414.9 kVAr	366 days	(4.5)
Generation credits	(0.30)	$/kWh	274,660.0 kWh		(82.4)
Miscellaneous					
Monthly invoice charge	30.00	$/invoice	326.0 inv/yr		9.8
Notional charges 2018					**251,966.8**

Notes:

1. The irrigation capacity charge and rebates are applied from 1 October to 31 March only.
2. All prices and charges exclude GST.

Prior notional charges worksheet

$\sum_i P_{i,t-1} Q_{i,t-2}$					($000)
Components (i)	**Prior delivery prices ($P_{i,2017}$)**		**Quantities ($Q_{i,2016}$)**	**Days applicable**	**Notional annual delivery charges ($P_{i,2017} \times Q_{i,2016}$)**
Days in quantity year				366	
Streetlighting, general and irrigation connections					
Streetlighting fixed charge	0.1166	$/con/day	46,228.6 cons	366 days	1,972.8
Streetlighting and general connections Peak charge (peak period demand)	0.5325	$/kW/day	482,845.6 kW	366 days	94,104.2
Streetlighting, general and irrigation connections volume charge					
Working weekdays (7am - 9pm)	0.08642	$/kWh	1,142,134 MWh		98,703.2
Nights, weekends	0.01106	$/kWh	1,314,363 MWh		14,536.9
General connections					
Low power factor charge	0.2000	$/kVAr/day	0.0 kVAr	366 days	0.0
Irrigation connections					
Capacity charge	0.4920	$/kW/day	77,725.4 kW	183 days	6,998.1
Power factor correction rebate	(0.1793)	$/kVAr/day	26,913.7 kVAr	183 days	(883.1)
Interruptibility rebate	(0.0448)	$/kW/day	46,474.5 kW	183 days	(381.0)
Major customer connections and embedded networks					
Fixed charge	1.8565	$/con/day	384.60 cons	366 days	261.3
Extra switches	5.0100	$/switch/day	110.80 switches	366 days	203.2
11k Metering equipment	7.0500	$/con/day	62.30 cons	366 days	160.8
11kV Underground cabling	2.9500	$/km/day	2.00 km	366 days	2.2
11kV Overhead lines	1.9100	$/km/day	3.20 km	366 days	2.2
Transformer capacity	0.0168	$/kVA/day	243,696.50 kVA	366 days	1,498.4
Peak charge (control period demand)	0.4891	$/kVA/day	97,604.60 kVA	366 days	17,472.3
Nominated maximum demand	0.0899	$/kVA/day	208,232.50 kVA	366 days	6,851.6
Metered maximum demand	0.1001	$/kVA/day	199,056.40 kVA	366 days	7,292.7
Large capacity connections					
Ops, maint & admin (dedicated assets)	4.56	$/kVA/year	12,000.0 kVA	366 days	54.7
Ops, maint & admin (shared assets)	18.67	$/kVA/year	9,853.0 kVA	366 days	184.0
Asset charge (dedicated assets)	8.94	$/kVA/year	12,000.0 kVA	366 days	107.3
Asset charge (shared assets)	37.80	$/kVA/year	9,853.0 kVA	366 days	372.4
Interconnection charge (winter)	70.42	$/kVA/year	1,997.2 kVA	366 days	140.6
Interconnection charge (summer)	57.34	$/kVA/year	6,809.1 kVA	366 days	390.4
Connection charge	6.48	$/kVA/year	6,809.1 kVA	366 days	44.1
Ops, maint & admin (dedicated assets)	5.64	$/kVA/year	13,000.0 kVA	366 days	73.3
Ops, maint & admin (shared assets)	8.33	$/kVA/year	11,782.8 kVA	366 days	98.2
Asset charge (dedicated assets)	15.58	$/kVA/year	13,000.0 kVA	366 days	202.5
Asset charge (shared assets)	23.00	$/kVA/year	11,782.8 kVA	366 days	271.0
Interconnection charge (winter)	68.71	$/kVA/year	1,158.6 kVA	366 days	79.6
Interconnection charge (summer)	55.95	$/kVA/year	9,814.1 kVA	366 days	549.1
Connection charge	1.82	$/kVA/year	9,814.1 kVA	366 days	17.9
Customer investment contract	63.03	$/kVA/year	13,000.0 kVA	366 days	819.4
Export and generation (distribution part only)					
Real power component	(0.09095890)	$/kW/day	2,353.5 kW	366 days	(78.4)
Reactive power component	(0.02989041)	$/kVAr/day	414.9 kVAr	366 days	(4.5)
Generation credits	(0.30)	$/kWh	274,660.0 kWh		(82.4)
Miscellaneous					
Monthly invoice charge	30.00	$/invoice	326.0 inv/yr		9.8
Notional charges 2017					**252,044.8**

Notes:

1. The irrigation capacity charge and rebates are applied from 1 October to 31 March only.
2. All prices and charges exclude GST.

Pass through costs and recoverable costs

22 Pass through costs and recoverable costs are specifically recognised in the CPP determination so that changes in the amounts can be directly reflected in prices.

23 Recoverable costs include transmission charges (including charges payable to Transpower and avoided transmission charges), system operator charges, transmission payments to distributed generators, and a range of fees associated with the CPP proposal.

24 The following table of recoverable costs shows the recoverable cost amounts for the assessment period, the amounts we forecast for the assessment period when setting prices, and actual amounts for the prior period:

Recoverable costs		**FY18 actual**	**FY18 forecast**	**FY17 actual**
	IM reference[1]	$000	$000	$000
Transpower and System Operator charges				
Connection	3.1.3(1)(b)	4,623.0	4,786.0	4,652.8
Interconnection	3.1.3(1)(b)	65,216.2	65,216.2	65,982.8
New investment	3.1.3(1)(c)	2,076.3	2,076.3	2,604.0
System Operator charges	3.1.3(1)(d)	nil	nil	nil
		71,915.5	72,078.4	73,239.5
Avoided transmission charges				
Papanui connection charges avoided (purchased 1/8/2012)	3.1.3(1)(e)	0	0	1,272.9
Springston connection charges avoided (purchased 31/3/2014)	3.1.3(1)(e)	866.2	866.2	847.3
Springston new investment charges avoided (purchased 31/3/2014)	3.1.3(1)(e)	164.1	164.1	175.2
Bromley connection charges avoided (purchased 1/4/2014)	3.1.3(1)(e)	945.8	945.8	919.0
Addington/Middleton connection charges avoided (purchased 1/4/2015)	3.1.3(1)(e)	2,851.1	2,851.1	2,779.3
		4,827.1	4,827.1	5,993.9
Transmission part of distributed generation payments				
Export credits	3.1.3(1)(f)	132.7	149.5	210.4
Generation credits	3.1.3(1)(f)	16.6	46.4	56.7
		149.3	195.8	267.1
CPP costs[2]				
CPP application fee	3.1.3(1)(h)	5.0	5.0	5.0
CPP assessment fee	3.1.3(1)(i)	317.8	317.8	317.8
CPP verifier fee	3.1.3(1)(j)	51.5	51.5	51.5
CPP auditor's fee	3.1.3(1)(k)	61.7	61.7	61.7
CPP engineer's fee	3.1.3(1)(l)	3.9	3.9	3.9
		439.9	439.9	439.9
Total recoverable costs		**77,331.8**	**77,541.3**	**79,940.4**

[1] Clause reference to the Electricity Distribution Services Input Methodologies Determination 2012 [2012] NZCC 26

[2] See appendix E for our calculation of CPP cost instalments

25 Clauses 10.3(d)(ii) and (iii) of the determination set out additional information requirements in relation to avoided transmission charges. This information and related calculations are included in Appendix C to this compliance statement.

26 Clause 10.3(e) of the determination requires information in relation to and evidence of the amounts charged by Transpower. Copies of invoices for these amounts are included in Appendix B.

27 Clause 10.3(f) of the determination requires information in relation to indirect transmission charges, where Transpower's charges are recharged to us by another electricity distributor. Orion has not paid any indirect transmission charges.

28 Pass-through costs include rates payable to territorial local authorities, Electricity Authority levies, Commerce Act levies and Utilities Disputes scheme charges.

29 The following table of pass through costs shows the pass through amounts for the assessment period, the amounts we forecast for the assessment period when setting prices, and actual amounts for the prior period:

Pass through costs		**FY18 actual**	**FY18 forecast**	**FY17 actual**
	IM reference[3]	$000	$000	$000
Local authority rates	3.1.2(2)(a)	3,699.4	3,642.0	3,462.0
Electricity Authority levies	3.1.2(2)(b)(ii)	564.8	580.0	589.6
Commerce Commission levies	3.1.2(2)(b)(i)	376.0	300.0	397.2
Utilities Disputes charges	3.1.2(2)(b)(iii)	103.6	90.0	99.3
Total pass through costs		**4,743.8**	**4,612.0**	**4,548.1**

[3] Clause reference to the Electricity Distribution Services Input Methodologies Determination 2012 NZCC 26

Variances from forecasts

30 Clause 10.3(c) of the CPP determination requires an explanation of any differences between forecast and actual pass through and recoverable costs. Such variances are normal and expected, because forecasts, by their very nature, are predictions or estimates. In many cases there is no concise reason for the variation other than to observe that the result was different.

31 The following table shows recoverable costs and pass through costs from above where the actual result varied by more than 2% from the forecast amount for FY18, and provides an explanation of each variance.

Cost category	Variance		Explanation
	$000	%	
Transpower connection charges	(163.0)	-3.4%	A transformer at Bromley grid exit point was taken out of service part way through the year (earlier than expected) and charges were reduced.
Export and generation credits	(46.5)	-23.7%	We set prices in advance but forecast the duration of signalling and estimate the customer response. Actual duration and customer response was lower than our forecast.
Electricity Authority levies	(15.2)	-2.6%	Levies varied from the amount forecast.
Commerce Commission levies	76.0	+25.3%	Levies were greater than forecast. The main contributor was the prior period wash up charge.
Utilities Disputes scheme charges	13.6	+15.1%	Charges varied from the amount forecast.

Revenue excluded from the price path assessment

32 **Other revenue** - We directly charge customers for very few other services, and make extensive use of external contractors rather than maintaining contracting staff in-house. Customers requiring electrical work are generally referred to their own electrical contractor, or to a number of Orion-approved contractors for major work. Customers then pay the contractor directly. We provide other services without charge (such as decommissioning of connections).

33 The sundry revenue we do receive is from services including rentals from Vodafone cabling, advertising, leasing, temporary supply box hire, limited field service activities and upper South Island load coordination services. The Commerce Commission has deducted this sundry revenue in establishing our maximum allowable revenue (MAR) figure. Consistent with this, we have not included this revenue in our notional revenue calculation which is compared against allowable notional revenue (which is derived from the initial MAR).

34 **Capital contributions** - Assets vested in Orion by customers in the form of capital contributions are taken at nil value, are not added to our regulatory asset base and are therefore excluded from this price path assessment.

35 Consistent with this exclusion, revenue from cash capital contributions, which is taken to offset the asset value in our regulatory asset base, is also excluded from this price path assessment.

QUALITY STANDARD SUPPORTING INFORMATION

36 The CPP determination sets out a quality standard that considers reliability results against reliability limits set for each year of the 5 year regulatory period. To comply, Orion must demonstrate that it has either met the reliability limits in the assessment period, or has met the reliability limits in the two preceding extant assessment periods.

37 Two measures of reliability are assessed:

37.1 SAIDI, or system average interruption duration index, which reflects the average number of minutes a customer is off in a year, and

37.2 SAIFI, or system average interruption frequency index, which reflects the average number of interruptions a customer has in a year.

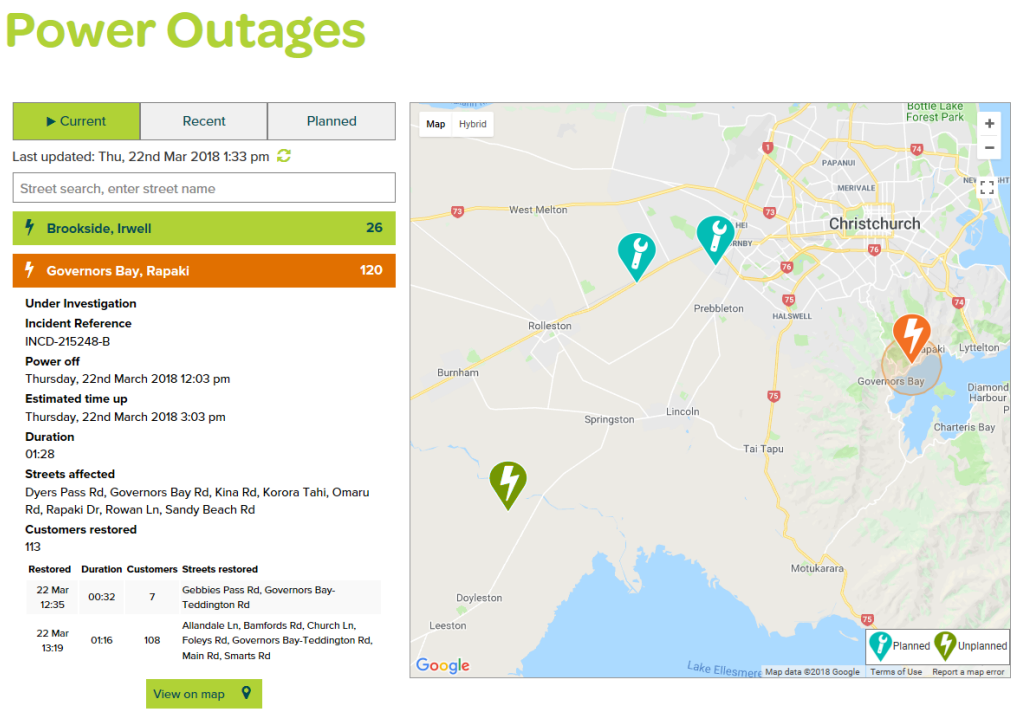
38 The following section describes our policies and procedures for recording outage information, and this is followed by a summary of the calculation of our reliability results.

Recording reliability information

39 Orion operates an outage management system as part of its "PowerOn" SCADA network management system. The system maintains a live connectivity model of our high voltage network which includes information on customer connection points, and where each connection point is fed from.

40 For planned outages and following network faults, our network controllers follow sequential operating orders to carry out switching and configuration changes on the network to bypass affected assets and facilitate planned or remedial work. At each point during these operating orders PowerOn shows the number of connections affected, together with switching points and switching times.

41 Initially, both planned and unplanned outages are reported on our website providing a live display of outages together with a map showing location, for example:



42 Our network management system, PowerOn, automatically collates a record of outage results within the system. Power is often restored in stages, and PowerOn automatically assesses how many customers are affected by each stage and records details separately for each restoration stage.

43 To provide an example, the outage entry showing above was collated in the PowerOn system and recorded as follows:

Outage Statistics between 22-Mar-2018 and 10-Apr-2018

Excluding incidents affecting no customers

Run on 9-Apr-2018

Outage Statistics for Date Range

Date	Incident #	Job #	Type	Stages	Off	On	Mins Off	# Ints	Cust Mins	Planned	Description
22-Mar-18	11	5					1822	2524	59216		
	INCD-215248-B	F-20896-B	Orion Fault HV		22/03/18 12:03:43	22/03/18 16:59:00	295.3	418	39980	0	Teddington ZS - HA8/38 , CB 111 - Governors Bay
			Stage No:	1	22/03/18 12:03:43	22/03/18 12:35:00	31.3	6	188		
			Stage No:	2	22/03/18 12:03:43	22/03/18 13:14:00	70.3	107	7520		
			Stage No:	3	22/03/18 12:03:43	22/03/18 14:04:00	120.3	46	5533		
			Stage No:	4	22/03/18 12:03:43	22/03/18 14:24:00	140.3	26	3647		
			Stage No:	5	22/03/18 14:26:06	22/03/18 14:41:57	15.8	159	2520		
			Stage No:	6	22/03/18 15:59:00	22/03/18 16:55:00	56.0	46	2576		
			Stage No:	7	22/03/18 14:28:00	22/03/18 16:55:00	147.0	26	3822		
			Stage No:	8	22/03/18 12:03:43	22/03/18 16:59:00	295.3	48	14174		

...

Zone	Voltage	Substation	Feeder	Controller Comments	Tripped Device	Cause Group	Cause Type	Planned Reason	Cause Comments	Work Type	Failed Asset	Failure Mode
Teddington	11kV	Teddington - HA8/38	Unit 111			Asset Failure	Condition Deterioration		Insulator on By-Pass ABI HA3/19.	11kV OH Emergency Maint	HV Line	OH Insulator
					Teddington ZS - HA8/38 , CB 111 - Governors Bay							
					Teddington ZS - HA8/38 , CB 111 - Governors Bay							
					Teddington ZS - HA8/38 , CB 111 - Governors Bay							
					Teddington ZS - HA8/38 , CB 111 - Governors Bay							
					Teddington ZS - HA8/38 , CB 111 - Governors Bay							
					Main Rd - HA3/8, ABI							
					Governors Bay Rd - HA3/19							
					Teddington ZS - HA8/38 , CB 111 - Governors Bay							

44 Note that the website screenshot was taken part way through the outage, and during restoration work additional connections were affected and recorded as separate stages to the outage.

45 The results in the above outage statistics report are checked for accuracy by our network control centre, with results reviewed against operating orders. At the end of each month, following checks and validation, a final report for the month is signed off by the control centre manager.

46 For each outage the following details are recorded:

46.1 interruption type (planned or unplanned, originating on Orion's network or on Transpower's network);

46.2 district substation affected;

46.3 feeder affected;

46.4 asset type affected;

46.5 cause of interruption;

46.6 time/date off for each loss of supply stage;

46.7 time/date for each restoration stage;

46.8 number of consumers affected in each stage; and

46.9 explanatory notes.

47 Finally, to establish our system-average reporting measures, the total number of connected consumers on the network is obtained from our connections database. We maintain details of all our network connections on this database, and we regularly undertake reconciliations with the Electricity Authority Registry.

System fixed assets transferred from Transpower

48 Clause 10.5 of the CPP determination requires us to demonstrate whether or not assets transferred during the assessment period have increased our assessed reliability values. Orion did not transfer any system fixed assets from Transpower during the assessment period, so there is no impact on assessed values.

49 However, there were interruptions recorded on assets transferred from Transpower prior to the assessment period. These interruptions contributed and are included in our assessed values as follows:

Assets involved	Bromley zone substation	Springston zone substation
Date purchased form Transpower	1 April 2014	31 March 2014
Fault number	INCD-196702-B / INCD-196705-B	INCD-200527-B
Date	29/05/2017	22/07/2017
Cause	Plant failure – Faulty 66kV Disconnect	Plant failure during storm
Description	As a result of equipment taken out of service for maintenance, current was distributed over the remaining equipment and the 66kV Disconnect failed under the additional load.	During a 48 hour period of torrential rain and gale force winds, a tap changer failed on the 66kV Transformer in Springston GXP. A loss of supply was suffered by Springston, Lincoln, Rolleston, Highfield, Motukarara, Hills Rd, Teddington, Duvauchelle, Diamond Harbour and Little River zone substations.
Connections affected	24,983	16,152
Connection minutes lost	354,371	880,971
Average outage duration	14 minutes	55 minutes
Contribution to SAIDI	1.8 minutes	4.6 minutes
Contribution to SAIFI	0.13 interruptions	0.08 interruptions

50 These ex-transmission assets supply wide areas and the contribution to outage results, particularly to SAIFI, is significant. Further, unlike the updated default price path determinations, our customised price path does not allow for these short duration events to be classified as extreme event days, and our SAIFI cap of 0.07 per day is not able to be applied.

Reliability limits

51 The reliability limits are given in table 2 of schedule 3 of the CPP determination as:

	FY18	**FY17**	**FY16**
$SAIDI_{LIMIT}$	82.4	91.0	94.7
$SAIFI_{LIMIT}$	1.02	1.16	1.21

Assessed values

52 The total duration and number of outages is accumulated to calculate the SAIDI and SAIFI indices. The results (prior to normalising the data for extreme events) were:

52.1 Duration of interruptions:

	FY18	FY17	FY16
Unplanned minutes lost (class C)	12,931,922	13,409,857	18,596,504
Planned minutes lost (class B)	2,869,551	2,245,566	3,210,010
	15,801,473	15,655,423	21,806,514
Average number of customers	199,838	196,421	192,857
SAIDI			
Unplanned	64.71	68.27	96.43
Planned	14.36	11.43	16.64
Total	**79.07**	**79.70**	**113.07**

52.1 Frequency of interruptions:

	FY18	FY17	FY16
Unplanned outages (class C)	185,663	143,544	216,846
Planned outages (class B)	13,321	8,014	12,245
	198,984	151,558	229,091
Average number of customers	199,838	196,421	192,857
SAIFI			
Unplanned	0.93	0.73	1.12
Planned	0.07	0.04	0.06
Total	**1.00**	**0.77**	**1.19**

Normalising the reliability results

53 The CPP determination provides for the normalisation of reliability results to mitigate the impact of extreme events and provide a view of underlying network reliability. In the current assessment period we identified one day that met the definition of a major event day (MED) when the daily SAIDI exceeded the 5.0 minute boundary value given in the CPP determination. Major event days for prior assessment periods (as identified in prior compliance statements) use higher boundary values.

54 The assessment dataset is normalised by adjusting the results on major event days by replacing the daily SAIDI with the applicable SAIDI boundary value, and reducing the daily SAIFI to the applicable SAIFI boundary value (if it is greater). The normalisation changes for prior and the current assessment period are:

Major event day adjustments

Date	Daily SAIDI adjustment	Daily SAIFI adjustment	Cause
FY16			
18 June 2015	23.73 reduced to 5.7	0.027 unchanged	A major snow storm occurred affecting the inland rural area of our network, west of Darfield. Some extended outages occurred where access became difficult including in our remote Coleridge and Castle Hill distribution areas.
19 June 2015	8.52 reduced to 5.7	0.028 unchanged	
10 October 2015	6.79 reduced to 5.7	0.082 reduced to 0.08	Fault protection tripped at our 33kV Springston substation as a result of bird nesting in the substation equipment. This caused a widespread outage affecting almost 16,000 rural customers. The majority were restored in just over an hour and the rest were progressively restored over the following 4 hours.
FY17			
5 November 2016	6.39 reduced to 5.5	0.009 unchanged	An early morning fault occurred at the termination of our double-circuit overhead line that feeds Lyttelton, damaging both circuits, and cutting power to 1700 connections in the area. We deployed generators to key loads in the township and restored full supply by 5pm. The close physical proximity of the two feeder circuits is an issue and we are part way through a project to address this, as well as working with a third party to establish an alternative supply route.
FY18 (current assessment period)			
22 January 2018	5.02 reduced to 5.0	0.062 unchanged	This was caused by a number of smaller events coinciding, the main contributors being: • Two 33kV cable joint faults feeding Hornby zone substation that occurred at the same time as planned work by Transpower, which delayed restoration, and • A 33kV cable termination fault in the feed to Sockburn zone substation.

55 Applying the normalisation adjustments to our calculated SAIDI and SAIFI results provides a result that is compared to the respective limits, as follows:

55.1 Duration of interruptions:

	FY18	FY17	FY16
SAIDI result	79.07	79.70	113.07
less normalisation adjustments	(0.02)	(0.89)	(21.94)
Normalised SAIDI*	**79.05**	**78.81**	**91.13**
Annual SAIDI Limit (from above)	82.40	91.0	94.7
Annual reliability result	Comply	Comply	Comply

* Calculated from unrounded components which affects the result

55.2 Frequency of interruptions:

	FY18	FY17	FY16
SAIFI result	1.00	0.77	1.19
less normalisation adjustments	0.00	0.00	(0.002)
Normalised SAIFI*	**1.00**	**0.77**	**1.19**
Annual SAIFI Limit (from above)	1.02	1.16	1.21
Annual reliability result	Comply	Comply	Comply

* Calculated from unrounded components which affects the result

56 Clause 8.1 of the CPP determination requires that we either:

56.1 comply with the annual reliability requirement for the assessment period (FY18), or

56.2 have complied with the annual reliability requirement in both the preceding two extant assessment periods (FY16 and FY17).

57 We have complied with both tests.

TRANSACTIONS

Large transactions and amalgamations

58 We have not been a party to any large transactions during the assessment period that would meet the thresholds in clause 9.1 of the CPP determination.

59 We have not completed an amalgamation or merger during the assessment period in terms of clause 9.2 of the CPP determination.

60 We have not been involved in a transfer of assets governed by clause 9.3 of the CPP determination during the assessment period.

APPENDIX A – DELIVERY AND EXPORT PRICE SCHEDULES

Delivery prices

(applicable from 1 April 2017 to 31 March 2018)

This schedule lists the wholesale prices that Orion uses to charge electricity retailers and directly contracted customers for the electricity delivery service in Orion's network area. This delivery service includes the transmission and distribution of electricity to homes and businesses, but does not include the cost of the electricity itself. Please refer to your electricity retailer for details of retail electricity prices.

	Price Component Code[3]	Delivery Price	All prices exclude GST
Streetlighting connections		*approx 48,266 connections*	
Fixed charge	STFXD	0.1129	$/con/day
Peak charge (peak period demand)	GENPK	0.5310	$/kW/day
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.08773	$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01125	$/kWh
General connections		*approx 198,087 connections*	
Peak charge (peak period demand)	GENPK	0.5310	$/kW/day
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.08773	$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01125	$/kWh
Low power factor charge	LOWPF	0.2000	$/kVAr/day
Irrigation connections		*approx 1,102 connections*	
Capacity charge	ICCAP	0.4197	$/kW/day*
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.08773	$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01125	$/kWh
Rebates			
Power factor correction rebate	ICPFC	(0.1793)	$/kVAr/day*
Interruptibility rebate	ICIRR	(0.0448)	$/kW/day*
* applied from 1 October to 31 March only			
Major customer and embedded network connections		*approx 404 connections*	
Fixed charge	MCFXD	1.8900	$/con/day
Extra switches	EQESW	3.5400	$/switch/day
11kV Metering equipment	EQMET	4.2900	$/con/day
11kV Underground cabling	EQUGC	3.1700	$/km/day
11kV Overhead lines	EQOHL	2.0000	$/km/day
Transformer capacity	EQTFC	0.0133	$/kVA/day
Peak charge (control period demand)	MCCPD	0.4857	$/kVA/day
Nominated maximum demand	MCNMD	0.1049	$/kVA/day
Metered maximum demand	MCMMD	0.0848	$/kVA/day
Large capacity connections		*12 connections*	
Individually assessed prices advised and charged directly to the customers			
Miscellaneous			
Monthly invoice and contract charge to retailers and directly contracted customers	INVFXD	30.00	$/invoice

Notes

1. Full details on how we apply these prices are included in our *Pricing Policy* document, available on our website.
2. Peak and volume prices for streetlighting, general connections and irrigation connections are applied to peak loadings and volumes derived from measurements taken at grid exit points, and it is appropriate to allow for normal network losses when assessing the contribution individual connections make to these charges. All other prices in this schedule are applied against measurements or ratings taken at the connection.
3. The price component code is used in our mandatory 'electricity information exchange protocol' files.

Delivery prices

(applicable from 1 April 2016 to 31 March 2017)

This schedule lists the wholesale prices that Orion uses to charge electricity retailers and directly contracted customers for the electricity delivery service in Orion's network area. This delivery service includes the transmission and distribution of electricity to homes and businesses, but does not include the cost of the electricity itself. Please refer to your electricity retailer for details of retail electricity prices.

	Price Component Code[3]	Delivery Price	All prices exclude GST
Streetlighting connections		*approx 47,119 connections*	
Fixed charge	STFXD	0.1166	$/con/day
Peak charge (peak period demand)	GENPK	0.5325	$/kW/day
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.08642	$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01106	$/kWh
General connections		*approx 192,636 connections*	
Peak charge (peak period demand)	GENPK	0.5325	$/kW/day
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.08642	$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01106	$/kWh
Low power factor charge	LOWPF	0.2000	$/kVAr/day
Irrigation connections		*approx 1,122 connections*	
Capacity charge	ICCAP	0.4920	$/kW/day*
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.08642	$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01106	$/kWh
Rebates			
Power factor correction rebate	ICPFC	(0.1793)	$/kVAr/day*
Interruptibility rebate	ICIRR	(0.0448)	$/kW/day*
* applied from 1 October to 31 March only			
Major customer and embedded network connections		*approx 387 connections*	
Fixed charge	MCFXD	1.8565	$/con/day
Extra switches	EQESW	5.0100	$/switch/day
11kV Metering equipment	EQMET	7.0500	$/con/day
11kV Underground cabling	EQUGC	2.9500	$/km/day
11kV Overhead lines	EQOHL	1.9100	$/km/day
Transformer capacity	EQTFC	0.0168	$/kVA/day
Peak charge (control period demand)	MCCPD	0.4891	$/kVA/day
Nominated maximum demand	MCNMD	0.0899	$/kVA/day
Metered maximum demand	MCMMD	0.1001	$/kVA/day
Large capacity connections		*12 connections*	
Individually assessed prices advised and charged directly to the customers			
Miscellaneous			
Monthly invoice and contract charge to retailers and directly contracted customers	INVFXD	30.00	$/invoice

Notes

1. Full details on how we apply these prices are included in our *Pricing Policy* document, available on our website.
2. Peak and volume prices for streetlighting, general connections and irrigation connections are applied to peak loadings and volumes derived from measurements taken at grid exit points, and it is appropriate to allow for normal network losses when assessing the contribution individual connections make to these charges. All other prices in this schedule are applied against measurements or ratings taken at the connection.
3. The price component code is used in our mandatory 'electricity information exchange protocol' files.

Export and generation credits

(applicable from 1 April 2017 to 31 March 2018)

This schedule lists the credit prices that we use to credit electricity retailers or directly contracted customers for exports or contributions from their distributed generation. The credits do not represent the purchase of electricity. They are a recognition of the value to Orion in providing its delivery service. Credits are only available for generation approved by Orion and customers must apply in advance. For further details refer to our *Export and Generation Credits Policy* document, available on our website.

Export credit pricing

Orion provides credits for electricity exported on to Orion's network during specified periods. The prices for these credits are:

Generator rated output	Period applied	Price Component Code[3]	Credit Price	All prices exclude GST
0 - 30kW generation[2]				
Anytime credits (without PV), or	Anytime	EXPA	0.00930	$/kWh
Anytime credits (with PV)	(24 hours, 7 days)	EXPAPV	0.00030	$/kWh
0 - 30kW generation[2]				
Peak period credits (with or without PV)	Chargeable peak period	EXPPP	0.64860	$/kWh
30 - 750kW Control period credits[4]				
- real power, plus	Chargeable control	EXPCP1	0.2221	$/kW/day
- reactive power[5]	period	EXPCP2	0.0298	$/kVAr/day
above 750kW	*Individually assessed prices provided on application*			

Notes for export credit pricing

1. Full details covering generation and metering requirements and application of prices are included in our *Export and Generation Credits Policy* document, available on Orion's website.
2. Small 0 to 30kW generators may elect (in advance) to receive the alternative peak period based credits, subject to the installation of appropriate metering to record peak period export.
3. The price component code is used in our mandatory 'electricity information exchange protocol' files.
4. Control period credits are assessed during control periods and applied as an annual credit at 365 times the daily credit price.
5. Credit quantities for reactive power (kVAr) export is limited to 33% of the credit quantity for real power (kW) export in each half hour period, the equivalent of exporting with a 0.95 lagging power factor.
6. Approximately 18 connections are approved for export credits.

Generation credit pricing (closed)

The generation credits arrangement is closed and is not available to any new generation. For existing participating generation we signal "generation periods" and provide a credit that reflects generation support provided at times when the export credit (above) is not available. These credits are based on the generated volume, regardless of whether this results in export from the connection.

Generator rated output	Period applied	Price Component Code[3]	Credit Price	All prices exclude GST
All participating generation (not available to any further generation)	Orion's ripple signalled generation period	GEN1	0.50000	$/kWh

Notes for generation credit pricing

1. Full details covering generation and metering requirements and application of prices are included in our *Export and Generation Credits Policy* document, available on Orion's website.
2. These prices apply for the current group of approved generation during our ripple signalled generation period. The total duration of generation periods is likely to vary significantly from year to year. In some years there may be no generation periods.
3. The price component code is used in our mandatory 'electricity information exchange protocol' files.
4. Approximately 16 connections are approved for generation credits.

Export and generation credits

(applicable from 1 April 2016 to 31 March 2017)

This schedule lists the credit prices that we use to credit electricity retailers or directly contracted customers for exports or contributions from their distributed generation. The credits do not represent the purchase of electricity. They are a recognition of the value to Orion in providing its delivery service. Credits are only available for generation approved by Orion and customers must apply in advance. For further details refer to our *Export and Generation Credits Policy* document, available on our website.

Export credit pricing

Orion provides credits for electricity exported on to Orion's network during specified periods. The prices for these credits are:

Generator rated output	Period applied	Price Component Code[3]	Credit Price	All prices exclude GST
0 - 30kW generation[2]				
Anytime credits (without PV), or	Anytime	EXPA	0.01128	$/kWh
Anytime credits (with PV)	(24 hours, 7 days)	EXPAPV	0.00039	$/kWh
0 - 30kW generation[2]				
Peak period credits (with or without PV)	Chargeable peak period	EXPPP	0.79020	$/kWh
30 - 750kW Control period credits[4]				
- real power, plus	Chargeable control	EXPCP1	0.2706	$/kW/day
- reactive power[5]	period	EXPCP2	0.0299	$/kVAr/day
above 750kW	*Individually assessed prices provided on application*			

Notes for export credit pricing

1. Full details covering generation and metering requirements and application of prices are included in our *Export and Generation Credits Policy* document, available on Orion's website.
2. Small 0 to 30kW generators may elect (in advance) to receive the alternative peak period based credits, subject to the installation of appropriate metering to record peak period export.
3. The price component code is used in our mandatory 'electricity information exchange protocol' files.
4. Control period credits are assessed during control periods and applied as an annual credit at 365 times the daily credit price.
5. Credit quantities for reactive power (kVAr) export is limited to 33% of the credit quantity for real power (kW) export in each half hour period, the equivalent of exporting with a 0.95 lagging power factor.
6. Approximately 18 connections are approved for export credits.

Generation credit pricing

In addition to the credits above, Orion provides credits for generation at other times. These credits are based on the generated volume, regardless of whether this results in export from the connection, and are available to consumers with generation in excess of 500kW.

Generator rated output	Period applied	Price Component Code[3]	Credit Price	All prices exclude GST
500 - 1200kW Generation period	Orion's ripple signalled generation period	GEN1	0.60000	$/kWh
above 1200kW	*Individually assessed prices provided on application*			

Notes for generation credit pricing

1. Full details covering generation and metering requirements and application of prices are included in our *Export and Generation Credits Policy* document, available on Orion's website.
2. These prices apply for pre-approved generation during our ripple signalled generation period. The total duration of generation periods is likely to vary significantly from year to year. In some years there may be no generation periods.
3. The price component code is used in our mandatory 'electricity information exchange protocol' files.
4. Approximately 16 connections are approved for generation credits.

APPENDIX B – EVIDENCE OF RECOVERABLE COST AMOUNTS PAID TO TRANSPOWER

The invoices below provide the evidence required by clause 10.3(e) of the determination of charges paid to Transpower and included as recoverable costs. A representative set of monthly invoices (January 2017) is shown for amounts that remain the same for most of the year.

The amounts included in the invoices below can be cross-referenced against all recoverable cost amounts paid to Transpower included in the schedule in Appendix D.

TRANSPOWER

Transpower New Zealand Ltd The National Grid

PO Box 1021
Wellington 6140
New Zealand

P 64 04 495 7000
F 64 04 495 6968
E revenue@transpower.co.nz

Keeping the energy flowing

Orion New Zealand Limited
PO BOX 13896
CHRISTCHURCH 8141

Tax Invoice	**0001102829**
GST No:	50-038-057
Invoice Date:	21/04/2017
Customer ID:	ORON
Account Manager:	Nicola Downes-Hogg
Due Date:	**20/05/2017**
Page:	1

Reference	Description	Amount	
Arthurs Pass	Connection Charge for Apr 2017	13,125.19 ✓	
Arthurs Pass	Interconnection Charge for Apr 2017	1,756.38 ✓	
	Sub-Total Arthurs Pass		**14,881.57**
Bromley	Connection Charge for Apr 2017	164,850.33 ✓	
Bromley	Interconnection Charge for Apr 2017	1,110,612.84 ✓	
	Sub-Total Bromley		**1,275,463.17**
Castle Hill	Connection Charge for Apr 2017	10,440.68 ✓	
Castle Hill	Interconnection Charge for Apr 2017	2,944.53 ✓	
	Sub-Total Castle Hill		**13,385.21**
Coleridge	Connection Charge for Apr 2017	12,052.36 ✓	
Coleridge	Interconnection Charge for Apr 2017	2,159.32 ✓	
	Sub-Total Coleridge		**14,211.68**
Hororata	Connection Charge for Apr 2017	41,700.05 ✓	
Hororata	Interconnection Charge for Apr 2017	248,827.86 ✓	
	Sub-Total Hororata		**290,527.91**
Islington	Connection Charge for Apr 2017	154,849.51 ✓	
Islington	Interconnection Charge for Apr 2017	3,992,011.36 ✓	
	Sub-Total Islington		**4,146,860.87**
Kimberley	Interconnection Charge for Apr 2017	76,371.68 ✓	

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Keeping the energy flowing

Orion New Zealand Limited
PO BOX 13896
CHRISTCHURCH 8141

Tax Invoice	**0001102829**
GST No:	50-038-057
Invoice Date:	21/04/2017
Customer ID:	ORON
Account Manager:	Nicola Downes-Hogg
Due Date:	**20/05/2017**
Page:	2 of 2

Reference	Description	Amount	
Kimberley	Connection Charges at Kimberley for Apr 2017	1,813.78 ✓	
	Sub-Total Kimberley		**78,185.46**

✓ Ok to Pay. 1/5/17.

Net Total:	**$5,833,515.87**
GST:	**$875,027.38**
Total:	**$6,708,543.25**

TRANSPOWER Transpower New Zealand Ltd The National Grid
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New Zealand
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f 64 04 495 6968
e revenue@transpower.co.nz
Keeping the energy flowing

Orion New Zealand Limited
PO BOX 13896
CHRISTCHURCH 8141

Tax Invoice **0001102830**
GST No: 50-038-057
Invoice Date: 21/04/2017
Customer ID: ORON
Account Manager: Nicola Downes-Hogg
Due Date: 20/05/2017
Page: 1 of 1

Reference	Description	Amount	
Bromley R206730 60073.61 B615010 392639	New Investment Charge - Bromley Third 220/66 kV Transformer T7 for Apr 2017	64,000.00 ✓	
	Sub-Total Bromley		**64,000.00**
Hororata R206730 602.24 B615010 1347.14	New Investment Charge for additional 66kV feeder for Apr 2017	1,949.38 ✓	
Hororata R206730 754.43 B615010 1164.57	New Investment Charge for Hororata Connection for Fonterra Dairy Factory for Apr 2017	1,919.00 ✓	
	Sub-Total Hororata		**3,868.38**
Islington ~~R206730~~ B615010 7464.21.	CIC Charge for ADD and MLN Asset Transfer Build ISL-CUS-12366-ORON for Apr 2017	7,464.21 ✓	
Islington R206730 8016.76 B615010 5201.24	CIC Charge for Islington 66kV Metering project for Papanui and Springston - Final for Apr 2017	13,218.00 ✓	
	Sub-Total Islington		**20,682.21**
Kimberley R206730 31225.31 B615010 54245.69	New Investment Charge for Kimberley for Apr 2017	84,471.00 ✓	
	Sub-Total Kimberley		**84,471.00**

✓ Ok to Pay 1/5/17

Net Total:	**$173,021.59**
GST:	**$25,953.24**
Total:	**$198,974.83**

TRANSPOWER

PO Box 1021, Wellington 6140
New Zealand

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Orion New Zealand Limited
PO BOX 13896
CHRISTCHURCH 8141

RECEIVED
31 JAN 2018

Tax Invoice **0001105846**
GST No: 50-038-057
Invoice Date: 31/01/2018
Customer ID: ORON
Account Manager: Nicola Downes-Hogg
Due Date: **20/02/2018**
Page: 1

Reference	Description	Amount	
Arthurs Pass	Connection Charge for Jan 2018	13,125.19 ✓	
Arthurs Pass	Interconnection Charge for Jan 2018	1,756.38 ✓	
	Sub-Total Arthurs Pass		**14,881.57**
Bromley	Connection Charge for Jan 2018	137,688.26 ✓	Bromley tx redact
Bromley	Interconnection Charge for Jan 2018	1,110,612.84 ✓	
	Sub-Total Bromley		**1,248,301.10**
Castle Hill	Connection Charge for Jan 2018	10,440.68 ✓	
Castle Hill	Interconnection Charge for Jan 2018	2,944.53 ✓	
	Sub-Total Castle Hill		**13,385.21**
Coleridge	Connection Charge for Jan 2018	12,052.36 ✓	
Coleridge	Interconnection Charge for Jan 2018	2,159.32 ✓	
	Sub-Total Coleridge		**14,211.68**
Hororata	Connection Charge for Jan 2018	41,700.05 ✓	
Hororata	Interconnection Charge for Jan 2018	248,827.86 ✓	
	Sub-Total Hororata		**290,527.91**
Islington	Connection Charge for Jan 2018	154,849.51 ✓	
Islington	Interconnection Charge for Jan 2018	3,992,011.36 ✓	
	Sub-Total Islington		**4,146,860.87**
Kimberley	Interconnection Charge for Jan 2018	76,371.68 ✓	

TRANSPOWER

PO Box 1021, Wellington 6140
New Zealand

P 64 4 590 7000
E revenue@transpower.co.

Orion New Zealand Limited
PO BOX 13896
CHRISTCHURCH 8141

RECEIVED
31 JAN 2018

Credit Note:	**0001105802**
GST No:	50-038-057
Invoice Date:	31/01/2018
Customer ID:	ORON
Account Manager:	Nicola Downes-Hogg
Due Date:	**20/02/2018**
Page:	1 of 1

Reference	Description	Amount	
	Wash Up for BRY Connection October 2017	(27,162.07)	
	Wash Up for BRY Connection November 2017	(27,162.07)	
	Wash Up for BRY Connection December 2017	(27,162.07)	
	Sub-Total		**(81,486.21)**

OK to Pay.
2/2/18.

Net Total:	**($81,486.21)**
GST:	**($12,222.93)**
Total:	**($93,709.14)**

APPENDIX C – INFORMATION SUPPORTING AVOIDED TRANSMISSION CHARGES

Clauses 10.3(d)(ii) and (iii) of the CPP determination set out information requirements in relation to amounts claimed as avoided transmission charges, including the amount actually charged in the year prior to an amount first being recovered.

Clause 10.3(d)(ii) of the CPP determination suggests that the amount that would have been charged by Transpower is equivalent to the amount specified in a pricing schedule for the year preceding the assessment period. This is not the case, and is not consistent with the Input Methodologies applying to our CPP. Transpower updates its charges each year and the amounts generally change, and we have calculated this updated amount and included it as an avoided transmission cost.

The calculations are consistent with those provided in our previous compliance statement with the following updates:

Transpower cost component	**FY18**	**FY17**
Asset return	8.26%	7.97%
Maintenance recovery rate substations	1.83%	1.87%
Maintenance recovery rate tower lines	$4,980 / km	$5,326 / km
Operating recovery rate 66kV	$1,207 / switch	$1,017 / switch

The calculation of the amounts avoided is based on the individual assets within the schedules that were purchased (or where the purchase avoids the change) using updated asset return, operating and maintenance figures, as follows:

Addington/Middleton avoided connection charge claim
Charges recalculated using standard recovery rates
2017/18

			Asset return % 8.26%	Maintenance recovery Rate 1.83%	Maintenance recovery on 66kV Line $4,980 /km	Number of Switche	Operating recovery on 66kV Line $1,207 /switch	Total avoided
Addington		***Addington***						
Substation	Addington	No residual land charge	505,669.28	112,030.84				617,700.12
Substation	Islington	Charged at ISL instead						
Transformer	T2		74,287.92	16,458.46				90,746.38
Transformer	T3		74,287.92	16,458.46				90,746.38
Transformer	T5		61,288.79	13,578.51				74,867.30
Transformer	T6		81,718.39	18,104.68				99,823.07
Transformer	T7		61,288.79	13,578.51				74,867.30
Switchgear	3		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	4		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	5		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	6		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	7		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	8		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	9		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	10		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	11		6,587.88	1,459.54		0.90	1,086.30	9,133.72
Switchgear	28		6,790.36	1,504.40		1.00	1,207.00	9,501.76
Switchgear	29		6,790.36	1,504.40		1.00	1,207.00	9,501.76
Switchgear	30		6,790.36	1,504.40		1.00	1,207.00	9,501.76
Switchgear	42		39,703.13	8,796.21		3.60	4,345.20	52,844.54
Switchgear	52		27,117.88	6,007.96		4.00	4,828.00	37,953.84
Switchgear	62		39,703.13	8,796.21		3.60	4,345.20	52,844.54
Switchgear	72		18,500.31	4,098.74		2.00	2,414.00	25,013.05
Switchgear	82		18,500.31	4,098.74		2.00	2,414.00	25,013.05
Switchgear	92		18,500.31	4,098.74		2.00	2,414.00	25,013.05
Switchgear	102		27,117.88	6,007.96		2.00	2,414.00	35,539.84
Switchgear	112		18,500.31	4,098.74		2.00	2,414.00	25,013.05
Switchgear	122		39,703.13	8,796.21		3.70	4,465.90	52,965.24
Switchgear	132		39,703.13	8,796.21		4.00	4,828.00	53,327.34
Switchgear	142		39,703.13	8,796.21		3.70	4,465.90	52,965.24
Switchgear	172		39,703.13	8,796.21		3.60	4,345.20	52,844.54
Switchgear	252		39,703.13	8,796.21		4.00	4,828.00	53,327.34
Switchgear	592		27,117.88	6,007.96		4.00	4,828.00	37,953.84
Switchgear	2642		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2662		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2672		6,423.08	1,423.03		1.00	1,207.00	9,053.11
Switchgear	2682		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2698		6,213.24	1,376.54		1.00	1,207.00	8,796.78
Switchgear	2702		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2722		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2742		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2762		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2782		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2798		6,213.24	1,376.54		1.00	1,207.00	8,796.78
Switchgear	2802		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2812		6,423.08	1,423.03		1.00	1,207.00	9,053.11
Switchgear	2822		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2842		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	127-117		6,479.23	1,435.47		2.00	2,414.00	10,328.70
Switchgear	147-137		6,479.23	1,435.47		2.00	2,414.00	10,328.70
Switchgear	67-57		6,479.23	1,435.47		2.00	2,414.00	10,328.70

Continued ...

Switchgear	87-77			6,479.23	1,435.47		2.00	2,414.00	10,328.70
Switchgear	97-107			6,479.23	1,435.47		2.00	2,414.00	10,328.70
Switchgear	RM122			3,709.85	821.92				4,531.77
Switchgear	RM142			3,709.85	821.92				4,531.77
Switchgear	RM172			3,709.85	821.92				4,531.77
Switchgear	RM2672			2,569.06	569.17				3,138.23
Switchgear	RM28			2,513.42	556.85				3,070.27
Switchgear	RM2812			2,569.06	569.17				3,138.23
Switchgear	RM29			2,513.42	556.85				3,070.27
Switchgear	RM30			2,513.42	556.85				3,070.27
Switchgear	RM42			3,709.85	821.92				4,531.77
Switchgear	RM62			3,709.85	821.92				4,531.77
Switchgear	VT124			1,362.34	301.83				1,664.17
Switchgear	VT144			1,362.34	301.83				1,664.17
Switchgear	VT174			1,362.34	301.83				1,664.17
Switchgear	VT44			1,362.34	301.83				1,664.17
Switchgear	VT64			1,362.34	301.83				1,664.17
Switchgear	152		Charged at ISL instead						
Switchgear	172		Charged at ISL instead						
Switchgear	192		Charged at ISL instead						
Switchgear	202		Charged at ISL instead						
Line	ADD_ISLA			438,893.06		61,067.69			421,966.87
Line	ADD_ISLB			282,696.46		61,067.69			290,136.94
Line	Cable_MLN			-	-				-
Other	R5			6,721.07	1,489.05				8,210.12
Other	R6			6,721.07	1,489.05				8,210.12
Other	R7			6,721.07	1,489.05				8,210.12
								Total	**2,706,179.54**
Middleton			***Middleton***						
Substation	Islington		Charged at ISL instead	709,450.69	157,178.54				-
Substation	Middleton		No residual land charge	-	-				-
Transformer	T5			61,288.79	13,578.51				-
Transformer	T6			81,718.39	18,104.68				-
Transformer	T7			61,288.79	13,578.51				-
Switchgear		52		27,117.88	6,007.96				-
Switchgear		72		18,500.31	4,098.74				-
Switchgear		92		18,500.31	4,098.74				-
Switchgear		112		18,500.31	4,098.74				-
Switchgear		132		39,703.13	8,796.21				-
Switchgear		252		39,703.13	8,796.21				-
Switchgear		592		27,117.88	6,007.96				-
Switchgear	127-117			6,479.23	1,435.47				-
Switchgear	147-137			6,479.23	1,435.47				-
Switchgear	67-57			6,479.23	1,435.47				-
Switchgear	87-77			6,479.23	1,435.47				-
Switchgear	97-107			6,479.23	1,435.47				-
Switchgear	VT124			1,362.34	301.83				-
Switchgear	VT174			1,362.34	301.83				-
Switchgear	VT44			1,362.34	301.83				-
Switchgear	VT64			1,362.34	301.83				-
Switchgear	152		Charged at ISL instead						
Switchgear	172		Charged at ISL instead						
Switchgear	192		Charged at ISL instead						
Switchgear	202		Charged at ISL instead						
Switchgear	406		Asset cost covered under CIC		4,729.23		0.90	1,086.30	5,815.53
Switchgear	416		Asset cost covered under CIC		4,729.23		0.90	1,086.30	5,815.53
Switchgear	RM406		Asset cost covered under CIC		821.92				821.92
Switchgear	RM416		Asset cost covered under CIC		821.92				821.92
Line	ADD_ISLA			438,893.06		61,067.69			77,993.88
Line	ADD_ISLB			282,696.46		61,067.69			53,627.21
Line	Cable_MLN								-
Other	R5			6,721.07	1,489.05			-	-
Other	R6			6,721.07	1,489.05			-	-
Other	R7			6,721.07	1,489.05			-	-
								Total	**144,895.99**
								Combined total	**2,851,075.53**

Bromley avoided connection charge claim
Charges recalculated using standard recovery rates
2017/18

Land proportion purchased 8.64%

Asset	Asset Id		Asset return	Maintenance	Maintenance	Number of	Operating	Total avoided
			8.26%	1.83%	$4,980 /km		$1,207 /switch	
Substation	Bromley	Partial purchase (proportion of land)	17,164.29	3,802.74				20,967.03
Transformer	T2		87,797.37	19,451.48				107,248.85
Transformer	T3		65,848.03	14,588.61				80,436.64
Transformer	T4		87,797.37	19,451.48				107,248.85
Transformer	T5	Not purchased						
Transformer	T7	Not purchased	-	-				-
Switchgear	62		18,057.47	4,000.62		2.00	2,414.00	24,472.09
Switchgear	72		39,703.13	8,796.21		3.80	4,586.60	53,085.94
Switchgear	88		24,121.62	5,344.14		3.00	3,621.00	33,086.76
Switchgear	92		-	-		0.00	-	-
Switchgear	102		18,057.47	4,000.62		2.00	2,414.00	24,472.09
Switchgear	112		39,703.13	8,796.21		3.70	4,465.90	52,965.24
Switchgear	122		39,703.13	8,796.21		3.80	4,586.60	53,085.94
Switchgear	142	Nil charges	-	-		0.00	-	-
Switchgear	148		24,121.62	5,344.14		3.00	3,621.00	33,086.76
Switchgear	154	Asset cost covered under CIC	-	1,152.39		1.00	1,207.00	2,359.39
Switchgear	162		27,086.20	6,000.94		2.00	2,414.00	35,501.14
Switchgear	172	Asset cost covered under CIC	-	8,796.21		3.70	4,465.90	13,262.11
Switchgear	182		39,703.13	8,796.21		3.70	4,465.90	52,965.24
Switchgear	207	renumber 214, purchasing	5,201.50	1,152.39		1.00	1,207.00	7,560.89
Switchgear	407	renumber 54, purchasing	1,628.88	360.88		1.00	1,207.00	3,196.76
Switchgear	467	Removed prior to purchase						
Switchgear	492	Not purchased (66kV)						
Switchgear	532	Not purchased (66kV)						
Switchgear	547	Removed prior to purchase						
Switchgear	572	Not purchased (66kV)						
Switchgear	802	Not purchased (220kV)						
Switchgear	812	Not purchased (220kV)						
Switchgear	842	Not purchased (220kV)						
Switchgear	867	Not purchased (220kV)						
Switchgear	878	Not purchased (220kV)						
Switchgear	882	Not purchased (220kV)						
Switchgear	887	Not purchased (220kV)						
Switchgear	892	Not purchased (220kV)						
Switchgear	917	Not purchased (220kV)						
Switchgear	2572	Asset cost covered under CIC, maint et	-	1,345.55		0.90	1,086.30	2,431.85
Switchgear	2582		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2592		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2602		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2612		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2622		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2632		6,423.08	1,423.03		1.00	1,207.00	9,053.11
Switchgear	2642		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2652		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2662		6,423.08	1,423.03		1.00	1,207.00	9,053.11
Switchgear	2672		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2682		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2698		9,421.94	2,087.43		1.00	1,207.00	12,716.37
Switchgear	2712		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2722		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2732		6,423.08	1,423.03		1.00	1,207.00	9,053.11
Switchgear	2742		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2752		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2762		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2772		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2782		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2792		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2802		6,073.36	1,345.55		0.90	1,086.30	8,505.21
Switchgear	2812	Asset cost covered under CIC	-	1,345.55		0.90	1,086.30	2,431.85
Switchgear	487-517	Removed prior to purchase						
Switchgear	807-817	Not purchased (220kV)						
Switchgear	827-847	Not purchased (220kV)						
Switchgear	RM2632	Metering not purchased, but charge still	2,569.06	569.17			-	3,138.23
Switchgear	RM2662	Metering not purchased, but charge still	2,569.06	569.17			-	3,138.23
Switchgear	RM2732	Metering not purchased, but charge still	2,569.06	569.17			-	3,138.23
Switchgear	RM492	Not purchased						
Switchgear	RM532	Not purchased						
Switchgear	RM572	Not purchased						
Switchgear	VT1		3,405.85	754.57			-	4,160.42
Switchgear	VT2		3,405.85	754.57			-	4,160.42
Switchgear	VT97	Nil charges						
Line	BRY_ISLA	Not purchased						
Other	ATC	Not purchased						
Other	BC5	Asset cost not in 2014 Transpower						
Other	BZ1P42	Not purchased						
Other	BZPP43	Nil charges						
Other	R2		6,878.44	1,523.92			-	8,402.36
Other	R3		6,878.44	1,523.92			-	8,402.36
Other	R4		6,878.44	1,523.92			-	8,402.36
		Total						**945,777.51**

Springston avoided connection charge claim

Charges recalculated using standard recovery rates 2017/18

Asset	Asset Id		Asset return %	Maintenance recovery Rate	Maintenance recovery	Number of Switches	Operating recovery on 66kV Line	Total
			8.26%	1.83%	$4,980 /km		$1,207 /switch	
Substation	Islington	not avoided, charge at ISL						
Substation	Springston		98,563.60	21,836.73				120,400.33
Transformer	T1		98,320.07	21,782.78				120,102.85
Transformer	T2		98,320.07	21,782.78				120,102.85
Switchgear	92	not avoided, charge at ISL						
Switchgear	112	not avoided, charge at ISL						
Switchgear	312	Asset cost covered under CIC		8,796.21		3.70	4,465.90	13,262.11
Switchgear	322	Asset cost covered under CIC		6,000.94		2.00	2,414.00	8,414.94
Switchgear	332	Asset cost covered under CIC		8,796.21		4.00	4,828.00	13,624.21
Switchgear	348	Asset cost covered under CIC		5,344.14		3.00	3,621.00	8,965.14
Switchgear	362	Asset cost covered under CIC		6,000.94		2.00	2,414.00	8,414.94
Switchgear	372	Asset cost covered under CIC		8,796.21		4.00	4,828.00	13,624.21
Switchgear	1122		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1132		10,429.02	2,310.55		2.00	2,414.00	15,153.57
Switchgear	1142		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1162		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1172		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1182		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1192		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1202		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1222		11,444.77	2,535.58		3.80	4,586.60	18,566.95
Switchgear	1227		1,573.56	348.62		1.00	1,207.00	3,129.18
Switchgear	1232		10,429.02	2,310.55		2.00	2,414.00	15,153.57
Switchgear	1147-1167		2,694.75	597.02		2.00	2,414.00	5,705.77
Switchgear	1187-1207		2,694.75	597.02		2.00	2,414.00	5,705.77
Switchgear	RM1132		2,521.55	558.65		0.00	-	3,080.20
Switchgear	RM1232		2,521.55	558.65		0.00	-	3,080.20
Switchgear	RM312	Asset cost covered under CIC	-	821.92		0.00	-	821.92
Switchgear	VT3		3,405.85	754.57		0.00	-	4,160.42
Switchgear	VT317	Asset cost covered under CIC	-	754.57		0.00	-	754.57
Switchgear	VT367	Asset cost covered under CIC	-	754.57		0.00	-	754.57
Switchgear	VT4		3,405.85	754.57			-	4,160.42
Line	ISL_SPNA		161,791.06		64,740.00			226,531.06
Other	BZ1P42	Asset cost covered under CIC	-	2,528.00				2,528.00
								866,166.40

Springston GXP spur asset acquisition
NIA charge avoided and claimed as recoverable cost

History of charges

	Monthly	*Annual*
Apr-11	$17,588.91	
May-11	$17,588.91	
Jun-11	$17,588.91	
Jul-11	$17,588.91	
Aug-11	$17,588.91	
Sep-11	$17,588.91	
Oct-11	$17,588.91	
Nov-11	$17,588.91	
Dec-11	$17,588.91	
Jan-12	$17,588.91	
Feb-12	$17,588.91	
Mar-12	$17,588.91	$211,066.92
Apr-12	$15,997.66	
May-12	$15,997.66	
Jun-12	$15,997.66	
Jul-12	$15,997.66	
Aug-12	$15,997.66	
Sep-12	$15,997.66	
Oct-12	$15,997.66	
Nov-12	$15,997.66	
Dec-12	$15,997.66	
Jan-13	$15,997.66	
Feb-13	$15,997.66	
Mar-13	$15,997.66	$191,971.92
Apr-13	$14,636.86	
May-13	$14,636.86	
Jun-13	$14,636.86	
Jul-13	$14,636.86	
Aug-13	$14,636.86	
Sep-13	$14,636.86	
Oct-13	$14,636.86	
Nov-13	$14,636.86	
Dec-13	$14,636.86	
Jan-14	$14,636.86	
Feb-14	$14,636.86	
Mar-14	$14,636.86	$175,642.32
Apr-14	nil	

Year	Monthly charge		Amount outstanding at start of period	Remaining term	Derived interest rate	Advised risk free rate	Diff	Reverse engineered rate	Reverse Engineered payment	Annual
FY2012	$17,588.91	actual	2,726,587	32	7.1%	7.78%	0.68%			
FY2013	$15,997.66	actual	2,702,328	31	6.2%	6.84%	0.68%			
FY2014	$14,636.86	actual	2,671,364	30	5.3%	5.99%	0.68%			
FY2015	$16,514.22	avoided*	2,633,218	29	6.5%	7.18%	0.68%	6.50%	$16,514.22	$198,170.64
FY2016		avoided	2,600,371	28		6.53%		5.85%	$15,505.06	$186,060.73
FY2017		avoided	2,561,494	27		5.92%		5.24%	$14,602.73	$175,232.80
FY2018		avoided	2,516,315	26		5.26%		4.58%	$13,677.08	$164,125.02
FY2019										

* (amount known as advised in regular annual update)

APPENDIX D – TIMING OF PAYMENT OF PASS-THROUGH AND RECOVERABLE COSTS

Clause 10.3 of the CPP determination requires that we disclose each pass through and recoverable cost amount paid, when it was paid, and the period to which it relates. This is set out in the following table.

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
FY2017	Ministry of Business Innovation & Employment Levy - Reversal of prior period accrual	Pass through cost	Commerce Act levies		(70,656.25)	NA
FY2017	Ministry of Business Innovation & Employment Levy - Paymenyt of prior period charge	Pass through cost	Commerce Act levies		70,522.46	5/05/2017
Q4 to 30 June 2017	Ministry of Business Innovation & Employment Levy	Pass through cost	Commerce Act levies		70,946.24	21/07/2017
Q1 to 30 Sept 2017	Ministry of Business Innovation & Employment Levy	Pass through cost	Commerce Act levies		73,972.37	6/10/2017
Q2 to 31 Dec 2017	Ministry of Business Innovation & Employment Levy	Pass through cost	Commerce Act levies		73,906.23	15/12/2017
Q3 to 31 Mar 2018	Ministry of Business Innovation & Employment Levy Q3 accrual	Pass through cost	Commerce Act levies		73,906.23	NA
2016/17	Ministry of Business Innovation & Employment Levy wash up	Pass through cost	Commerce Act levies		83,403.62	22/12/2017
FY2018	Utilities Disputes Charge	Pass through cost	Utilities Disputes Charge		103,641.09	28/04/2017
April 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		47,139.46	22/05/2017
May 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		56,141.57	30/06/2017
June 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		58,136.36	21/07/2017
July 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		57,742.08	21/08/2017
August 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		54,228.94	20/09/2017
September 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		49,439.00	20/10/2017
October 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		46,558.25	20/11/2017
November 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		47,339.48	22/12/2017
December 2017	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		47,299.46	22/01/2018
January 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		44,723.37	23/02/2018
February 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		41,357.33	23/03/2018
March 2018	Electricity Authority Levy March 2018 Accrual	Pass through cost	Electricity Authority Levy		43,481.66	NA
FY2018	Electricity Authority Levy FY2017 Washup	Pass through cost	Electricity Authority Levy		(28,815.23)	22/02/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
FY2018	Accrue CCC rates on leased properties	Pass through Cost	Local authority rates		(6,927.62)	NA
FY2018	Christchurch City Council rates	Pass through Cost	Local authority rates		9,236.83	20/04/2017
FY2018	Christchurch City Council rates 153 Montreal St on settlement	Pass through Cost	Local authority rates		(1,335.37)	28/04/2017
FY2018	Christchurch City Council rates 153 Montreal St paid by Chapman Tripp	Pass through Cost	Local authority rates		1,934.29	28/04/2017
FY2018	Christchurch City Council rates (CCC AREA 1 INST 4)	Pass through Cost	Local authority rates		46,673.67	12/05/2017
FY2018	Christchurch City Council rates (CCC AREA 1 INST 4)	Pass through Cost	Local authority rates		3,761.61	12/05/2017
FY2018	Christchurch City Council rates (CCC AREA 3 INST 4)	Pass through Cost	Local authority rates		61,232.10	26/05/2017
FY2018	Selwyn District Council rates (SDC INST 4)	Pass through Cost	Local authority rates		25,323.96	2/06/2017
FY2018	Christchurch City Council rates (CCC AREA 2 INST 4)	Pass through Cost	Local authority rates		32,452.57	9/06/2017
FY2018	Christchurch City Council rates (CCC AREA 1 INST 1)	Pass through Cost	Local authority rates		49,212.82	15/08/2017
FY2018	Christchurch City Council rates (CCC AREA 1 INST 1)	Pass through Cost	Local authority rates		3,741.86	15/08/2017
FY2018	Christchurch City Council rates (CCC AREA 3 INST 1)	Pass through Cost	Local authority rates		61,591.58	25/08/2017
FY2018	Selwyn District Council rates (SDC INST 1)	Pass through Cost	Local authority rates		27,137.69	1/09/2017
FY2018	Christchurch City Council rates (CCC AREA 2 INST 1)	Pass through Cost	Local authority rates		32,431.18	15/09/2017
FY2018	Christchurch City Council rates (CCC AREA 1 INST 2)	Pass through Cost	Local authority rates		49,171.54	15/11/2017
FY2018	Christchurch City Council rates (CCC AREA 1 INST 2)	Pass through Cost	Local authority rates		4,961.15	15/11/2017
FY2018	Christchurch City Council rates (CCC AREA 3 INST 2)	Pass through Cost	Local authority rates		61,907.45	30/11/2017
FY2018	Selwyn District Council rates (SDC INST 2)	Pass through Cost	Local authority rates		27,807.70	1/12/2017
FY2018	Christchurch City Council rates (CCC AREA 2 INST 2)	Pass through Cost	Local authority rates		32,571.64	15/12/2017
FY2018	Christchurch City Council rates (CCC AREA 1 INST 3)	Pass through Cost	Local authority rates		49,171.54	15/02/2018
FY2018	Christchurch City Council rates (CCC AREA 1 INST 3)	Pass through Cost	Local authority rates		4,322.47	15/02/2018
FY2018	Christchurch City Council rates (CCC AREA 3 INST 3)	Pass through Cost	Local authority rates		61,129.41	28/02/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
FY2018	Selwyn District Council rates (SDC INST 3)	Pass through Cost	Local authority rates		27,816.78	2/03/2018
FY2018	Christchurch City Council rates (CCC AREA 2 INST 3)	Pass through Cost	Local authority rates		32,342.92	9/03/2018
FY2018	Christchurch City Council rates 153 Montreal St paid by Chapman Tripp	Pass through Cost	Local authority rates		(50.71)	22/03/2018
FY2018	Christchurch City Council rates (CCC4)	Pass through Cost	Local authority rates		679,603.70	12/05/2017
FY2018	Selwyn District Council rates (SDC4)	Pass through Cost	Local authority rates		23,567.09	2/06/2017
FY2018	Rates 153 Montreal St to Gloucester 146 Ltd	Pass through Cost	Local authority rates		1,624.50	28/07/2017
FY2018	Christchurch City Council rates (CCC1)	Pass through Cost	Local authority rates		738,911.32	15/08/2017
FY2018	Selwyn District Council rates (SDC1)	Pass through Cost	Local authority rates		24,427.96	1/09/2017
FY2018	Christchurch City Council rates (CCC2)	Pass through Cost	Local authority rates		738,911.33	15/11/2017
FY2018	Selwyn District Council rates (SDC2)	Pass through Cost	Local authority rates		24,427.96	1/12/2017
FY2018	Christchurch City Council rates (CCC3)	Pass through Cost	Local authority rates		738,911.32	15/02/2018
FY2018	Selwyn District Council rates (SDC3)	Pass through Cost	Local authority rates		24,428.00	2/03/2018
FY2018	Accrue CCC rates on leased properties	Pass through Cost	Local authority rates		6,999.71	NA
FY2015 to FY2019	CPP application auditing charge	Recoverable Cost	CPP Auditor Fee	80,000.00	20,259.67	21/01/2013
FY2015 to FY2019	CPP application auditing charge	Recoverable Cost	CPP Auditor Fee	74,000.00	18,560.83	8/03/2013
FY2015 to FY2019	CPP application auditing charge	Recoverable Cost	CPP Auditor Fee	50,000.00	12,781.99	7/12/2012
FY2015 to FY2019	CPP application auditing charge	Recoverable Cost	CPP Auditor Fee	40,000.00	10,091.78	8/02/2013
FY2015 to FY2019	Commerce Commission CPP application charge	Recoverable Cost	CPP Commerce Commission application fee	20,000.00	5,032.20	21/02/2013
FY2015 to FY2019	Commerce Commission CPP assessment fee	Recoverable Cost	CPP Commerce Commission assessment fee	1,080,745.00	266,968.71	20/05/2013
FY2015 to FY2019	Commerce Commission CPP assessment fee	Recoverable Cost	CPP Commerce Commission assessment fee	324,662.00	76,689.74	20/12/2013
FY2015 to FY2019	Commerce Commission CPP assessment fee	Recoverable Cost	CPP Commerce Commission assessment fee	148,923.00	36,086.54	20/08/2013
FY2015 to FY2019	Commerce Commission CPP assessment fee refund	Recoverable Cost	CPP Commerce Commission assessment fee	(266,855.91)	(61,960.31)	14/03/2015
FY2015 to FY2019	CPP application engineer charge	Recoverable Cost	CPP Engineer Fee	12,350.00	3,148.58	20/12/2012
FY2015 to FY2019	CPP application engineer charge	Recoverable Cost	CPP Engineer Fee	2,875.00	723.53	20/02/2013
FY2015 to FY2019	CPP application verifier charge	Recoverable Cost	CPP Verifier Fee	73,007.99	18,613.09	20/12/2012
FY2015 to FY2019	CPP application verifier charge	Recoverable Cost	CPP Verifier Fee	67,556.25	17,094.04	25/01/2013

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
FY2015 to FY2019	CPP application verifier charge	Recoverable Cost	CPP Verifier Fee	63,626.57	15,809.50	22/04/2013
April 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	22/05/2017
April 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	22/05/2017
April 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	22/05/2017
April 2017	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	22/05/2017
April 2017	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		41,700.05	22/05/2017
April 2017	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		154,849.51	22/05/2017
April 2017	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,813.78	22/05/2017
April 2017	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,756.38	22/05/2017
April 2017	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,110,612.84	22/05/2017
April 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	22/05/2017
April 2017	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,159.32	22/05/2017
April 2017	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		248,827.86	22/05/2017
April 2017	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,992,011.36	22/05/2017
April 2017	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		76,371.68	22/05/2017
April 2017	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	22/05/2017
April 2017	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,949.38	22/05/2017
April 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	22/05/2017
April 2017	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	22/05/2017
April 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	22/05/2017
April 2017	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	22/05/2017
May 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/06/2017
May 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	20/06/2017

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
May 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/06/2017
May 2017	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	20/06/2017
May 2017	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		41,700.05	20/06/2017
May 2017	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		154,849.51	20/06/2017
May 2017	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,813.78	20/06/2017
May 2017	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,756.38	20/06/2017
May 2017	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,110,612.84	20/06/2017
May 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	20/06/2017
May 2017	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,159.32	20/06/2017
May 2017	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		248,827.86	20/06/2017
May 2017	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,992,011.36	20/06/2017
May 2017	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		76,371.68	20/06/2017
May 2017	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/06/2017
May 2017	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,949.38	20/06/2017
May 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/06/2017
May 2017	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/06/2017
May 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/06/2017
May 2017	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/06/2017
June 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/07/2017
June 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	20/07/2017
June 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/07/2017
June 2017	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	20/07/2017
June 2017	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		41,700.05	20/07/2017
June 2017	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		154,849.51	20/07/2017

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
June 2017	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,813.78	20/07/2017
June 2017	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,756.38	20/07/2017
June 2017	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,110,612.84	20/07/2017
June 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	20/07/2017
June 2017	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,159.32	20/07/2017
June 2017	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		248,827.86	20/07/2017
June 2017	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,992,011.36	20/07/2017
June 2017	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		76,371.68	20/07/2017
June 2017	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/07/2017
June 2017	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,949.38	20/07/2017
June 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/07/2017
June 2017	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/07/2017
June 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/07/2017
June 2017	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/07/2017
July 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	21/08/2017
July 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	21/08/2017
July 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	21/08/2017
July 2017	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	21/08/2017
July 2017	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		41,700.05	21/08/2017
July 2017	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		154,849.51	21/08/2017
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July 2017	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,756.38	21/08/2017
July 2017	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,110,612.84	21/08/2017

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
July 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	21/08/2017
July 2017	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,159.32	21/08/2017
July 2017	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		248,827.86	21/08/2017
July 2017	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,992,011.36	21/08/2017
July 2017	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		76,371.68	21/08/2017
July 2017	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	21/08/2017
July 2017	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,949.38	21/08/2017
July 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	21/08/2017
July 2017	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	21/08/2017
July 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	21/08/2017
July 2017	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	21/08/2017
August 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/09/2017
August 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	20/09/2017
August 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/09/2017
August 2017	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	20/09/2017
August 2017	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		41,700.05	20/09/2017
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August 2017	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,756.38	20/09/2017
August 2017	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,110,612.84	20/09/2017
August 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	20/09/2017
August 2017	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,159.32	20/09/2017
August 2017	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		248,827.86	20/09/2017

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
August 2017	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,992,011.36	20/09/2017
August 2017	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		76,371.68	20/09/2017
August 2017	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/09/2017
August 2017	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,949.38	20/09/2017
August 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/09/2017
August 2017	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/09/2017
August 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/09/2017
August 2017	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/09/2017
September 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/10/2017
September 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	20/10/2017
September 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/10/2017
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September 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	20/10/2017
September 2017	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,159.32	20/10/2017
September 2017	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		248,827.86	20/10/2017
September 2017	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,992,011.36	20/10/2017
September 2017	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		76,371.68	20/10/2017

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
September 2017	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/10/2017
September 2017	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,949.38	20/10/2017
September 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/10/2017
September 2017	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/10/2017
September 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/10/2017
September 2017	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/10/2017
October 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/11/2017
October 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	20/11/2017
October 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/11/2017
October 2017	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	20/11/2017
October 2017	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		41,700.05	20/11/2017
October 2017	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		154,849.51	20/11/2017
October 2017	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,813.78	20/11/2017
October 2017	Bromley GXP Connection charge refund	Recoverable cost	Transpower connection charge		(27,162.07)	20/02/2018
October 2017	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,756.38	20/11/2017
October 2017	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,110,612.84	20/11/2017
October 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	20/11/2017
October 2017	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,159.32	20/11/2017
October 2017	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		248,827.86	20/11/2017
October 2017	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,992,011.36	20/11/2017
October 2017	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		76,371.68	20/11/2017
October 2017	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/11/2017
October 2017	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,949.38	20/11/2017

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
October 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/11/2017
October 2017	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/11/2017
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November 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	20/12/2017
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November 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/12/2017
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Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
November 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/12/2017
November 2017	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/12/2017
December 2017	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	22/01/2018
December 2017	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		164,850.33	22/01/2018
December 2017	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	22/01/2018
December 2017	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	22/01/2018
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December 2017	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		2,944.53	22/01/2018
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December 2017	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	22/01/2018
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December 2017	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	22/01/2018
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January 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/02/2018
January 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		137,688.26	20/02/2018
January 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/02/2018
January 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	20/02/2018
January 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		41,700.05	20/02/2018
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January 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/02/2018
February 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/03/2018
February 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		137,688.26	20/03/2018
February 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/03/2018
February 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,052.36	20/03/2018

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February 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/03/2018
February 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/03/2018
March 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,125.19	20/04/2018
March 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		137,688.26	20/04/2018
March 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,440.68	20/04/2018
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March 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/04/2018
March 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/04/2018
May to Aug 2017	Export credits (transmission part)	Recoverable cost	Avoided transmission charges (Export credits)		113,662.88	20/11/2017
Sept 2016 to Aug 2017	Export credits (transmission part)	Recoverable cost	Avoided transmission charges (Export credits)		19,024.15	20/02/2018
May and July 2017	Generation credits (transmission part)	Recoverable cost	Avoided transmission charges (Generation credits)		16,631.60	20/08/2017
FY2018	Transpower connection charges avoided following partial purchase of Bromley grid exit on 1 April 2014	Recoverable cost	Avoided transmission charges (Partial purchase of Bromley grid exit)	Nil	945,777.51	NA
FY2018	Transpower new investment contract charges avoided following purchase of Springston grid exit on 31 March 2014	Recoverable cost	Avoided transmission charges (Paying of Springston investment contract)	Nil	164,125.02	NA

Period covered	Charge	Cost type	Subtotal group	Amount paid if different ($ excl GST)	Amount claimed ($ excl GST)	Date paid
FY2018	Transpower connection charges avoided following purchase of Addington & Middleton grid exits on 1 April 2015	Recoverable cost	Avoided transmission charges (Purchase of Addington/Middleton grid exit)	Nil	2,851,075.53	NA
FY2018	Transpower connection charges avoided following purchase of Springston grid exit on 31 March 2014	Recoverable cost	Avoided transmission charges (Purchase of Springston grid exit)	Nil	866,166.40	NA
Total					**82,075,685.75**	

Subtotals

Cost Type Grouping	
Recoverable cost	77,331,840.08
Pass through cost	4,743,845.67
	82,075,685.75
Subtotal group Grouping	
Commerce Act levies	376,000.90
Utilities Disputes Charge	103,641.09
Electricity Authority Levy	564,771.73
Local authority rates	3,699,431.95
Avoided transmission charges (Export credits)	132,687.03
Avoided transmission charges (Generation credits)	16,631.60
Avoided transmission charges (Purchase of Springston grid exit)	866,166.40
Avoided transmission charges (Paying of Springston investment contract)	164,125.02
Avoided transmission charges (Partial purchase of Bromley grid exit)	945,777.51
Avoided transmission charges (Purchase of Addington/Middleton grid exit)	2,851,075.53
CPP Auditor Fee	61,694.27
CPP Commerce Commission application fee	5,032.20
CPP Commerce Commission assessment fee	317,784.69
CPP Engineer Fee	3,872.11
CPP Verifier Fee	51,516.62
Transpower connection charge	4,623,010.38
Transpower interconnection charge	65,216,207.64
Transpower new investment contract	2,076,259.08
	82,075,685.75

APPENDIX E – CALCULATION OF CPP COST INSTALMENTS

Schedule 2, paragraph 3 of the CPP determination provides for the recovery of cost amounts relating to Orion's CPP proposal in equal instalments over the five assessment periods, calculated as:

$RC_t = 0.23126 \times PV_{14}$

where:

t is the year in which the Assessment Period ends;

RC_t is the Recoverable Cost amount allowed in the assessment period ending in year t;

PV_{14} is the present value at 1 April 2014 of each amount recoverable, with each present value calculated using a cost debt of 7.93% per annum.

Cost	Paid to	Cost (excl GST)	Date paid	Days to 1/04/2014	Present value 7.93% p.a.	Instalment @ 0.23123
Breakdown by individual invoice						
Engineer fee	LineTech Consulting	$12,350	20/12/2012	467	$13,617	$3,149
Auditor fee	Audit NZ	$50,000	7/12/2012	480	$55,278	$12,782
Verifier fee	Geoff Brown & Associates	$73,008	20/12/2012	467	$80,496	$18,613
Auditor fee	Audit NZ	$80,000	21/01/2013	435	$87,617	$20,260
Verifier fee	Geoff Brown & Associates	$67,556	25/01/2013	431	$73,927	$17,094
Engineer fee	LineTech Consulting	$2,875	20/02/2013	405	$3,129	$724
Auditor fee	Audit NZ	$40,000	8/02/2013	417	$43,644	$10,092
Application fee	Com Com	$20,000	21/02/2013	404	$21,763	$5,032
Auditor fee	Audit NZ	$74,000	8/03/2013	389	$80,270	$18,561
Verifier fee	Geoff Brown & Associates	$63,627	22/04/2013	344	$68,371	$15,809
Assessment fee	Com Com	$1,080,745	20/05/2013	316	$1,154,559	$266,969
Assessment fee	Com Com	$148,923	20/08/2013	224	$156,063	$36,087
Assessment fee	Com Com	$324,662	20/12/2013	102	$331,660	$76,690
Assessment fee	Com Com	($266,856)	14/03/2014	18	($267,901)	($61,947)
Total		**$1,770,890**			**$1,902,493**	**$439,913**
Breakdown by cost type						
Engineer fee	LineTech Consulting	$15,225	*		$16,746	$3,872
Auditor fee	Audit NZ	$244,000	*		$266,809	$61,694
Verifier fee	Geoff Brown & Associates	$204,191	*		$222,794	$51,517
Application fee	Com Com	$20,000			$21,763	$5,032
Assessment fee	Com Com	$1,287,474			$1,374,381	$317,798
Total		**$1,770,890**			**$1,902,493**	**$439,913**

* these amounts match those given in schedule 2, table 1 of the CPP determination.

DIRECTORS' CERTIFICATE
FOR COMPLIANCE STATEMENT

We, Geoffrey Edward Vazey and Bruce Donald Gemmell, being directors of Orion New Zealand Limited certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached compliance statement of Orion New Zealand Limited, and related information, prepared for the purposes of the *Orion New Zealand Limited Customised Price-Quality Path Determination 2013* has been prepared in accordance with all the relevant requirements.

Geoffrey Edward Vazey

Bruce Donald Gemmell

28 May 2018

AUDIT NEW ZEALAND
Mana Arotake Aotearoa

Independent Auditor's Report

To the directors of Orion New Zealand Limited and to the Commerce Commission

The Auditor-General is the auditor of Orion New Zealand Limited (the company). The Auditor-General has appointed me, John Mackey, using the staff and resources of Audit New Zealand, to provide an opinion, on his behalf, on whether the company's Compliance Statement for the year ended on 31 March 2018 on pages 3 to 53 complies, in all material respects, with the Orion New Zealand Limited Customised Price-Quality Path Determination 2013 (the Determination).

Directors' responsibilities

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

Auditor's responsibility

Our responsibility is to express an opinion on whether the 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: Assurance Engagements Other Than Audits or Reviews of Historical Financial Information issued by the External Reporting Board and the Standard on Assurance Engagements 3100: Compliance Engagements issued by the External Reporting Board.

These standards require that we comply with ethical requirements and plan and perform our audit to provide reasonable assurance (which is also referred to as 'audit' assurance) about whether the Compliance Statement has been prepared in all material respects in accordance with the Determination.

An audit involves performing procedures to obtain evidence about the amounts and disclosures in the Compliance Statement. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the Compliance Statement, whether due to fraud or error or non-compliance with the Determination. In making those risk assessments, the auditor considers internal control relevant to the company's preparation of the 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 company's internal control.

In relation to the price path and quality standards set out in clauses 7 and 8 of the Determination respectively, our audit included examination, on a test basis, of evidence relevant to the amounts and disclosures contained on pages 3 to 53 of the Compliance Statement.

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

We have obtained sufficient recorded evidence and all the explanations that we required to provide a basis for our opinion.

Use of this report

This independent auditor's report has been prepared for the directors of the company and for the Commerce Commission for the purpose of providing those parties with independent audit assurance about whether the 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 an audit 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 Compliance Statement nor do we guarantee complete accuracy of the Compliance Statement. Also we did not evaluate the security and controls over the electronic publication of the Compliance Statement.

The opinion expressed in this independent auditor's report has been formed on the above basis.

Independence

When carrying out the engagement we followed the independence requirements of the Auditor-General, which incorporate the independence requirements of the External Reporting Board. We also complied with the auditor requirements specified in the Determination.

The Auditor-General, and his employees, and Audit New Zealand and its employees may deal with the company on normal terms within the ordinary course of trading activities of the company. Other than any dealings on normal terms within the ordinary course of business, this engagement, the audit of the company's disclosure information prepared under the Electricity Distribution Information Disclosure Determination 2012, and the annual audit of the company's financial statements, we have no relationship with or interests in the company.

Opinion

In our opinion:

- the Compliance Statement of Orion New Zealand Limited for the year ended on 31 March 2018, has been prepared, in all material respects, in accordance with the Determination;
- the information used in the preparation of the Compliance Statement has been properly extracted from the company's accounting and other records, sourced from its financial and non-financial systems; and
- proper records to enable the complete and accurate compilation of the Compliance Statement have been kept.

Our audit was completed on 28 May 2018 and our opinion is expressed as at that date.

John Mackey
Audit New Zealand
On behalf of the Auditor-General
Christchurch, New Zealand