



Orion New Zealand Limited
Customised Price-Quality Path
Determination 2013

Compliance statement

For the year ending 31 March 2019

Issued 7 June 2019



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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 five year 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 2019, the fifth and final year under the CPP.

COMPLIANCE STATEMENTS

Price path statement

- 6 This year we **complied with** our price path limit, with notional revenue falling \$18.2k below our allowable notional revenue of \$170,480.0k, calculated in accordance with clause 7.5 and schedule 1B of the CPP determination.

Quality standard statement

- 7 This year we **complied with** our reliability requirement. The CPP Determination requires that we must either comply with the reliability limits in the current assessment period, or have complied with the reliability limits in both of the two prior assessment periods. This year our reliability results slightly exceeded our reliability limit, and we instead demonstrate compliance on the basis that we complied with reliability limits in both prior assessment periods.

- 8 Our prior reliability results were:

8.1 Duration of interruptions (SAIDI):

	FY19	FY18	FY17
SAIDI result	73.96	79.05	78.81
SAIDI limit	73.40	82.40	91.0
	Exceeded	Comply	Comply

8.2 Frequency of interruptions (SAIFI):

	FY19	FY18	FY17
SAIFI result	0.79	1.00	0.77
SAIFI limit	0.87	1.02	1.16
	Comply	Comply	Comply

Price structure statement

- 9 We restructured aspects of our pricing during the assessment period. With effect from 1 April 2018, we adjusted the minimum elective range for moving up to the major customer category from 250kVA to 200kVA, and we managed the transition of a group of connections that benefitted from a change in category. Within the major customer category, we also introduced a 300kVA minimum quantity for the metered maximum demand charge.
- 10 As a result several of our chargeable quantities that are referenced from two years prior do not relate to our current prices. Consistent with our prior compliance statement calculations, 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

- 11 During the assessment period, we:
 - 11.1 have not been involved in an amalgamation or merger, and
 - 11.2 have not been involved in a transfer of assets governed by clause 9.3 of the CPP determination.
- 12 We prepared and approved this compliance statement on 7 June 2019.
- 13 Full details supporting the statements above are included in this compliance statement.

PRICE PATH SUPPORTING INFORMATION

- 14 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

- 15 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 2019, giving:

$$NR_{2019} = \sum_i P_{i,2019} Q_{i,2017} - K_{2019} - V_{2019}$$

where $\sum_i P_{i,2019} Q_{i,2017}$ 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 2017. This expression is evaluated as \$252,651.5k in the worksheet on page 8 titled notional charges worksheet,

K_{2019} is the sum of all pass-through costs for the assessment period. This expression is evaluated as \$5,015.3k in the worksheet on page 12 titled *pass through costs*, and

V_{2019} is the sum of all recoverable costs for the assessment period. This expression is evaluated as \$77,174.3k in the worksheet on page 11 titled *recoverable costs*,

$$\begin{aligned} \therefore NR_{2019} &= \$252,651.5k - \$5,015.3k - \$77,174.3k \\ &= \$170,461.8k \end{aligned}$$

Allowable notional revenue

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

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

where t denotes the year in which the assessment period ends, that is 2019, giving:

$$ANR_{2019} = (\sum_i P_{i,2018} Q_{i,2017} - (K_{2018} + V_{2018}) + (ANR_{2018} - NR_{2018})) \\ \times (1 + \Delta CPI_{2019})(1 - X)$$

where $\sum_i P_{i,2018} P_{i,2017}$ is the sum of each (ith) price during any part of the assessment period ending in 2018, multiplied by the corresponding quantity for 2017. This expression is evaluated as \$247,769.3k in the worksheet on page 9 titled *prior notional charges worksheet*,

$K_{2018} + V_{2018}$ is the sum of all pass-through and recoverable costs for the assessment period ending in 2018. This was evaluated as \$4,743.8k and \$77,331.8k 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 11 and 12 of this compliance statement,

$ANR_{2018} - NR_{2018}$ is the difference between allowable notional revenue and notional revenue for the assessment period ending in 2018. This was evaluated as \$141.6k in our previous Customised Price Path Compliance Statement,

$1 + \Delta CPI_{2019}$ 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:

$$= \frac{CPI_{Dec,2016} + CPI_{Mar,2017} + CPI_{Jun,2017} + CPI_{Sep,2017}}{CPI_{Dec,2015} + CPI_{Mar,2016} + CPI_{Jun,2016} + CPI_{Sep,2016}} - 1 \\ = \frac{990 + 1000 + 1000 + 1005}{977 + 979 + 983 + 986} - 1 \\ = 1.783\%$$

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

$$\therefore ANR_{2019} = (\$247,769.3k - \$4,743.8k - \$77,331.8k + \$141.6k)(1.01783)(1.01) \\ = \$170,480.0k$$

- 17 Substituting the values calculated above in the price path condition gives:

$$\frac{NR_{2019}}{ANR_{2019}} = \frac{\$170,461.8k}{\$170,480.0k} = 0.9999 < 1$$

- 18 Our notional revenue is \$18.2k 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

- 19 We restructured some of our prices from the start of the assessment period, on 1 April 2018. 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.
- 20 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 FY17.
- 21 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.
- 22 The following table sets out each new restructured price, the basis for establishing the quantity, and the quantity itself.

Restructure	Description of change	Basis for quantity
Adjusted the criteria for categorisation as a major customer	From 1 April 2018 we adjusted the minimum elective range for moving to the major customer category from 250kVA to 200kVA), and we proactively shifted 38 customers that clearly benefited.	For each customer shifted, we established their contribution to FY17 general connection quantities and what deducted these from our base quantities for our notional revenue calculation. We then established what their FY17 quantities would have been had they been in the major customer category, and added these to our base quantities.
Applied a minimum 300 kVA metered maximum demand	From 1 April 2018 for major customers we applied a minimum 300kVA chargeable metered maximum demand (prior to this no minimum had applied). This has the effect of increasing our revenue and an adjustment to our base quantities is needed to capture this in the calculation of notional revenue.	For the notional revenue calculation we recalculated our FY17 chargeable quantities to include the application of the minimum 300 kVA charge

- 23 The combined impact of the restructuring resulted in the following adjustments to the quantities used in our notional revenue calculation:

Component	FY17 quantity adjustment
<i>Deduction from general connection quantities</i>	
Fixed charge	-35.0 cons
Peak charge (peak period demand)	-5,046.8 kW
Weekdays volume charge (Mon to Fri, 7am - 9pm)	-16,307MWh
Nights & weekends volume charge (Sat & Sun)	-14,870MWh
<i>Addition to major customer quantities</i>	
Fixed charge	+35.00 cons
Extra switches	+1.00 switches
11kV Underground cabling	+0.90 km
Transformer capacity	+20,150.00 kVA
Peak charge (control period demand)	+4774.53kVA
Nominated maximum demand	+9,546.11 kVA
Metered maximum demand	+13,469.40 kVA

Notional charges worksheet

$\sum_i P_{i,t} Q_{i,t-2}$					(\$000)
Components (i)	Assessed delivery prices ($P_{i,2019}$)	Quantities ($Q_{i,2017}$)	Days applicable	Notional annual delivery charges ($P_{i,2019} \times Q_{i,2017}$)	
Days in quantity year			365 days		
Streetlighting, general and irrigation connections					
Streetlighting fixed charge	0.1211 \$/con/day	47,161.6 cons	365 days	2,084.6	
General fixed charge	0.0000 \$/con/day	190,933.0 cons	365 days	-	
Streetlighting and general connections Peak charge (peak period demand)	0.5181 \$/kW/day	472,492.9 kW	365 days	89,351.5	
Streetlighting, general and irrigation connections volume charge					
Weekdays (Mon to Fri, 7am - 9pm)	0.09316 \$/kWh	1,100,402 MWh		102,513.5	
Nights & weekends (Sat & Sun)	0.01193 \$/kWh	1,258,067 MWh		15,008.7	
General connections					
Low power factor charge	0.2000 \$/kVAr/day	0.0 kVAr	365 days	0.0	
Irrigation connections					
Capacity charge	0.4350 \$/kW/day	76,165.5 kW	182 days	6,030.0	
Power factor correction rebate	(0.1793) \$/kVAr/day	25,015.1 kVAr	182 days	(816.3)	
Interruptibility rebate	(0.0448) \$/kW/day	46,020.5 kW	182 days	(375.2)	
Major customer connections and embedded networks					
Fixed charge	7.5000 \$/con/day	419.90 cons	365 days	1,149.5	
Extra switches	3.6100 \$/switch/day	114.20 switches	365 days	150.5	
11k Metering equipment	4.3700 \$/con/day	56.80 cons	365 days	90.6	
11kV Underground cabling	3.2300 \$/km/day	3.40 km	365 days	4.0	
11kV Overhead lines	2.0300 \$/km/day	3.20 km	365 days	2.4	
Transformer capacity	0.0135 \$/kVA/day	273,887.90 kVA	365 days	1,349.6	
Peak charge (control period demand)	0.4730 \$/kVA/day	100,889.93 kVA	365 days	17,418.1	
Nominated maximum demand	0.1102 \$/kVA/day	219,810.61 kVA	365 days	8,841.4	
Metered maximum demand	0.0862 \$/kVA/day	209,451.20 kVA	365 days	6,590.0	
Large capacity connections					
Customer 1					
Ops, maint & admin (dedicated assets)	5.51 \$/kVA/year	12,000.0 kVA	365 days	66.1	
Ops, maint & admin (shared assets)	21.75 \$/kVA/year	10,000.0 kVA	365 days	217.5	
Asset charge (dedicated assets)	7.97 \$/kVA/year	12,000.0 kVA	365 days	95.6	
Asset charge (shared assets)	32.78 \$/kVA/year	10,000.0 kVA	365 days	327.8	
Interconnection charge (winter)	69.60 \$/kVA/year	2,984.3 kVA	365 days	207.7	
Interconnection charge (summer)	55.74 \$/kVA/year	7,310.0 kVA	365 days	407.5	
Connection charge	6.99 \$/kVA/year	7,310.0 kVA	365 days	51.1	
Customer 2					
Ops, maint & admin (dedicated assets)	5.90 \$/kVA/year	13,000.0 kVA	365 days	76.7	
Ops, maint & admin (shared assets)	10.10 \$/kVA/year	11,772.0 kVA	365 days	118.9	
Asset charge (dedicated assets)	13.71 \$/kVA/year	13,000.0 kVA	365 days	178.2	
Asset charge (shared assets)	23.47 \$/kVA/year	11,772.0 kVA	365 days	276.3	
Interconnection charge (winter)	67.92 \$/kVA/year	1,525.3 kVA	365 days	103.6	
Interconnection charge (summer)	54.39 \$/kVA/year	9,602.1 kVA	365 days	522.3	
Connection charge	1.59 \$/kVA/year	9,602.1 kVA	365 days	15.3	
Customer investment contract charge	54.46 \$/kVA/year	13,000.0 kVA	365 days	708.0	
Export and generation (distribution part only)					
Real power component	(0.0844) \$/kW/day	2,071.0 kW	365 days	(63.8)	
Reactive power component	(0.0277) \$/kVAr/day	357.4 kVAr	365 days	(3.6)	
Generation credits	(0.30) \$/kWh	187,720 kWh		(56.3)	
Miscellaneous					
Monthly invoice charge	30.00 \$/invoice	327.5 inv/yr		9.8	
Notional charges 2019				252,651.5	

Notes:

- The irrigation capacity charge and rebates are applied from 1 October to 31 March only.
- 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 ($P_{i,2018}$)	Quantities ($Q_{i,2017}$)	Days applicable	Notional annual delivery charges ($P_{i,2018} \times Q_{i,2017}$)
Days in quantity year			365 days	
Streetlighting, general and irrigation connections				
Streetlighting fixed charge	0.1129 \$/con/day	47,161.6 cons	365 days	1,943.5
General fixed charge	0.0000 \$/con/day	190,968.0 cons	365 days	0.0
Streetlighting and general connections Peak charge (peak period demand)	0.5310 \$/kW/day	477,539.7 kW	365 days	92,554.4
Streetlighting, general and irrigation connections volume charge				
Weekdays (Mon to Fri, 7am - 9pm)	0.08773 \$/kWh	1,116,709 MWh		97,968.9
Nights & weekends (Sat & Sun)	0.01125 \$/kWh	1,272,937 MWh		14,320.5
General connections				
Low power factor charge	0.2000 \$/kVar/day	0.0 kVar	365 days	0.0
Irrigation connections				
Capacity charge	0.4197 \$/kW/day	76,165.5 kW	182 days	5,817.9
Power factor correction rebate	(0.1793) \$/kVar/day	25,015.1 kVar	182 days	(816.3)
Interruptibility rebate	(0.0448) \$/kW/day	46,020.5 kW	182 days	(375.2)
Major customer connections and embedded networks				
Fixed charge	1.8900 \$/con/day	384.90 cons	365 days	265.5
Extra switches	3.5400 \$/switch/day	113.20 switches	365 days	146.3
11k Metering equipment	4.2900 \$/con/day	56.80 cons	365 days	88.9
11kV Underground cabling	3.1700 \$/km/day	2.50 km	365 days	2.9
11kV Overhead lines	2.0000 \$/km/day	3.20 km	365 days	2.3
Transformer capacity	0.0133 \$/kVA/day	253,737.90 kVA	365 days	1,231.8
Peak charge (control period demand)	0.4857 \$/kVA/day	96,115.40 kVA	365 days	17,039.4
Nominated maximum demand	0.1049 \$/kVA/day	210,264.50 kVA	365 days	8,050.7
Metered maximum demand	0.0848 \$/kVA/day	195,981.80 kVA	365 days	6,066.0
Large capacity connections				
Ops, maint & admin (dedicated assets)				
Ops, maint & admin (shared assets)	22.58 \$/kVA/year	10,000.0 kVA	365 days	225.8
Asset charge (dedicated assets)	8.94 \$/kVA/year	12,000.0 kVA	365 days	107.3
Asset charge (shared assets)	41.16 \$/kVA/year	10,000.0 kVA	365 days	411.6
Interconnection charge (winter)				
Interconnection charge (summer)	56.36 \$/kVA/year	7,310.0 kVA	365 days	412.0
Connection charge	6.89 \$/kVA/year	7,310.0 kVA	365 days	50.4
Ops, maint & admin (dedicated assets)				
Ops, maint & admin (shared assets)	9.34 \$/kVA/year	11,772.0 kVA	365 days	110.0
Asset charge (dedicated assets)	16.13 \$/kVA/year	13,000.0 kVA	365 days	209.7
Asset charge (shared assets)	23.14 \$/kVA/year	11,772.0 kVA	365 days	272.4
Interconnection charge (winter)				
Interconnection charge (summer)	54.99 \$/kVA/year	9,602.1 kVA	365 days	528.0
Connection charge	1.66 \$/kVA/year	9,602.1 kVA	365 days	15.9
Customer investment contract	60.21 \$/kVA/year	13,000.0 kVA	365 days	782.7
Export and generation (distribution part only)				
Real power component	(0.0906) \$/kW/day	2,071.0 kW	365 days	(68.5)
Reactive power component	(0.0298) \$/kVar/day	357.4 kVar	365 days	(3.9)
Generation credits	(0.30) \$/kWh	187,720 kWh		(56.3)
Miscellaneous				
Monthly invoice charge	30.00 \$/invoice	327.5 inv/yr		9.8
Notional charges 2018				247,769.3

Notes:

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

Pass through costs and recoverable costs

- 24 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.
- 25 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.
- 26 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:

<i>Recoverable costs</i>		FY19 actual	FY19 forecast	FY18 actual
	IM reference ¹	\$000	\$000	\$000
Transpower and System Operator charges				
Connection	3.1.3(1)(b)	4,331.3	4,977.4	4,623.0
Interconnection	3.1.3(1)(b)	65,836.0	65,836.0	65,216.2
New investment	3.1.3(1)(c)	2,209.7	2,076.4	2,076.3
System Operator charges	3.1.3(1)(d)	nil	Nil	nil
		<u>72,377.0</u>	<u>72,889.7</u>	<u>71,915.5</u>
Avoided transmission charges				
Springston connection charges avoided (final allowable claim in FY18)	3.1.3(1)(e)	0	0	866.2
Springston new investment charges avoided (final allowable claim in FY18)	3.1.3(1)(e)	0	0	164.1
Addington/Middleton connection charges avoided (third assessment period following the assessment period in which the purchase occurred)	3.1.3(1)(e)	2,941.7	2,941.7	2,851.1
Bromley connection charges avoided (forth assessment period following the assessment period in which the purchase occurred)	3.1.3(1)(e)	985.2	985.2	945.8
Hororata and Islington charges avoided (purchased during the assessment period)	3.1.3(1)(e)	308.2	0	0
		<u>4,235.1</u>	<u>3,926.9</u>	<u>4,827.1</u>
Transmission part of distributed generation payments				
Export credits	3.1.3(1)(f)	106.9	115.5	132.7
Generation credits	3.1.3(1)(f)	15.4	16.3	16.6
		<u>122.3</u>	<u>131.7</u>	<u>149.3</u>

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

CPP costs²

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		77,174.3	77,388.3	77,331.8

- 27 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.
- 28 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.
- 29 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.
- 30 Pass-through costs include rates payable to territorial local authorities, Electricity Authority levies, Commerce Act levies and Utilities Disputes scheme charges.
- 31 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:

<i>Pass through costs</i>		FY19 actual	FY19 forecast	FY18 actual
	IM reference ³	\$000	\$000	\$000
Local authority rates	3.1.2(2)(a)	3,894.9	3,810.0	3,699.4
Electricity Authority levies	3.1.2(2)(b)(ii)	588.1	635.0	564.8
Commerce Commission levies	3.1.2(2)(b)(i)	422.9	400.0	376.0
Utilities Disputes charges	3.1.2(2)(b)(iii)	109.4	107.0	103.6
Total pass through costs		5,015.3	4,952.0	4,743.8

² See appendix E for our calculation of CPP cost instalments

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

Variations from forecasts

- 32 Clause 10.3(c) of the CPP determination requires an explanation of any differences between forecast and actual pass through and recoverable costs. Such variations 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.
- 33 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 FY19, and provides an explanation of each variance.

Cost category	Variance		Explanation
	\$000	%	
Transpower connection charges	(646.1)	-13.0%	Two variations contributed to this difference: <ul style="list-style-type: none"> As noted in our previous compliance statement, in the prior assessment period (but after forecasts for this assessment period were established) a transformer at Bromley grid exit point was taken out of service by Transpower (earlier than expected) and charges were reduced. At the point of setting forecasts, a partial purchase of Transpower assets at Islington and Hororata grid exit points was being considered, but the date of the transaction was uncertain. Transpower's charges relating to these assets were left in the forecast. The purchase did proceed during the assessment period, and the balance of charges avoided are instead claimed as an avoided transmission charge.
Avoided transmission charges	308.2	+7.8%	See second bullet point in the entry above.
Transpower new investment charges	133.3	+6.4%	During the year we paid the remaining outstanding balance against one of our Hororata new investment agreement charges which was not anticipated at the stage that forecasts were set.
Export and generation credits	(9.4)	-7.1%	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.
Local authority rates	84.90	+2.2%	Rates varied from the amount forecast.
Electricity Authority levies	(46.90)	-7.4%	Levies varied from the amount forecast.
Commerce Commission levies	22.90	+5.7%	Levies varied from the amount forecast.
Utilities Disputes charges	2.40	+2.2%	Charges varied from the amount forecast.

Revenue excluded from the price path assessment

- 34 **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).
- 35 The sundry revenue we do receive is from services including rentals from Vodafone cabling, advertising, leasing, 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).
- 36 **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.
- 37 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

- 38 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.
- 39 Two measures of reliability are assessed:
 - 39.1 SAIDI, or system average interruption duration index, which reflects the average number of minutes a customer is off in a year, and
 - 39.2 SAIFI, or system average interruption frequency index, which reflects the average number of interruptions a customer has in a year.
- 40 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

- 41 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.
- 42 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.
- 43 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:

Power Outages

► Current Recent Planned

Last updated: Thu, 22nd Mar 2018 1:33 pm

Street search, enter street name

Brookside, Irwell	26
Governors Bay, Rapaki	120

Under Investigation
Incident Reference
 INCD-215248-B
Power off
 Thursday, 22nd March 2018 12:03 pm
Estimated time up
 Thursday, 22nd March 2018 3:03 pm
Duration
 01:28
Streets affected
 Dyers Pass Rd, Governors Bay Rd, Kina Rd, Korora Tahi, Omaru Rd, Rapaki Dr, Rowan Ln, Sandy Beach Rd
Customers restored
 113

Restored	Duration	Customers	Streets restored
22 Mar 12:35	00:32	7	Gebbles Pass Rd, Governors Bay-Teddington Rd
22 Mar 13:19	01:36	108	Altandale Ln, Bamfords Rd, Church Ln, Fokys Rd, Governors Bay-Teddington Rd, Main Rd, Smarts Rd

View on map

- 44 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.
- 45 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										
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	INCID-215248-B	F-20896-B	Orion Fault HV				1822	2524	99216	0 Teddington 25 - HA8/38 , CB 111 - Governors Bay
			Stage No	1	22/03/18 12:03:43	22/03/18 12:05:00	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	LPH 111			Asset Failure	Condition Determination		Insulator on 81/38/38 HA3/19	11kV OH Emergency Maint	HV Line	OH Insulator
					Teddington 25 - HA8/38 , CB 111 - Governors Bay							
					Teddington 25 - HA8/38 , CB 111 - Governors Bay							
					Teddington 25 - HA8/38 , CB 111 - Governors Bay							
					Teddington 25 - HA8/38 , CB 111 - Governors Bay							
					Teddington 25 - HA8/38 , CB 111 - Governors Bay							
					Main Rd - HA3/8, ABE							
					Governors Bay Rd - HA3/19							
					Teddington 25 - HA8/38 , CB 111 - Governors Bay							

- 46 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.
- 47 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.
- 48 For each outage the following details are recorded:
- 48.1 interruption type (planned or unplanned, originating on Orion’s network or on Transpower’s network);
 - 48.2 district substation affected;
 - 48.3 feeder affected;
 - 48.4 asset type affected;
 - 48.5 cause of interruption;
 - 48.6 time/date off for each loss of supply stage;
 - 48.7 time/date for each restoration stage;
 - 48.8 number of consumers affected in each stage; and
 - 48.9 explanatory notes.

- 49 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

- 50 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 transferred system fixed assets from Transpower located at Transpower’s Islington and Hororata grid exit substations effective 3 April 2018 (that is, during the assessment period).
- 51 We have interrogated our records and confirm that no outages originated on these assets, so there has been no impact on our assessed reliability values.
- 52 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 from 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

- 53 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 daily SAIFI cap is not able to be applied.

Reliability limits

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

	FY19	FY18	FY17
<i>SAIDI</i> <small>LIMIT</small>	73.4	82.4	91.0
<i>SAIFI</i> <small>LIMIT</small>	0.87	1.02	1.16

Assessed values

55 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:

55.1 Duration of interruptions:

	FY19	FY18	FY17
Unplanned minutes lost (class C)	11,180,031	12,931,922	13,409,857
Planned minutes lost (class B)	4,244,670	2,869,551	2,245,566
	<hr/> 15,424,701	<hr/> 15,801,473	<hr/> 15,655,423
Average number of customers	202,956	199,838	196,421
SAIDI			
Unplanned	55.09	64.71	68.27
Planned	20.91	14.36	11.43
Total	<hr/> 76.00	<hr/> 79.07	<hr/> 79.70

55.1 Frequency of interruptions:

	FY19	FY18	FY17
Unplanned outages (class C)	145,968	185,663	143,544
Planned outages (class B)	14,121	13,321	8,014
	<hr/> 160,089	<hr/> 198,984	<hr/> 151,558
Average number of customers	202,956	199,838	196,421
SAIFI			
Unplanned	0.72	0.93	0.73
Planned	0.07	0.07	0.04
Total	<hr/> 0.79	<hr/> 1.00	<hr/> 0.77

Normalising the reliability results

- 56 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 4.4 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.
- 57 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			
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: <ul style="list-style-type: none"> 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.

FY19 (current assessment period)

23 January 2019	6.44 reduced to 4.4	0.041 unchanged	A severe evening storm with rain and winds gusting up to 140km/h struck Canterbury caused multiple outages from trees, some of which took more than a day to repair, and also transient faults where no fault could be identified.
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58 Applying the normalisation adjustments to our calculated SAIDI and SAIFI results provides a result that is compared to the respective limits, as follows:

58.1 Duration of interruptions:

	FY19	FY18	FY17
SAIDI result	76.00	79.07	79.70
<i>less</i> normalisation adjustments	(2.04)	(0.02)	(0.89)
Normalised SAIDI*	73.96	79.05	78.81
Annual SAIDI Limit (from above)	73.40	82.40	91.0
Annual reliability result	Exceeded	Comply	Comply

* Calculated from unrounded components which affects the result

58.2 Frequency of interruptions:

	FY19	FY18	FY17
SAIFI result	0.79	1.00	0.77
<i>less</i> normalisation adjustments	0.00	0.00	0.00
Normalised SAIFI*	0.79	1.00	0.77
Annual SAIFI Limit (from above)	0.87	1.02	1.16
Annual reliability result	Comply	Comply	Comply

* Calculated from unrounded components which affects the result

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

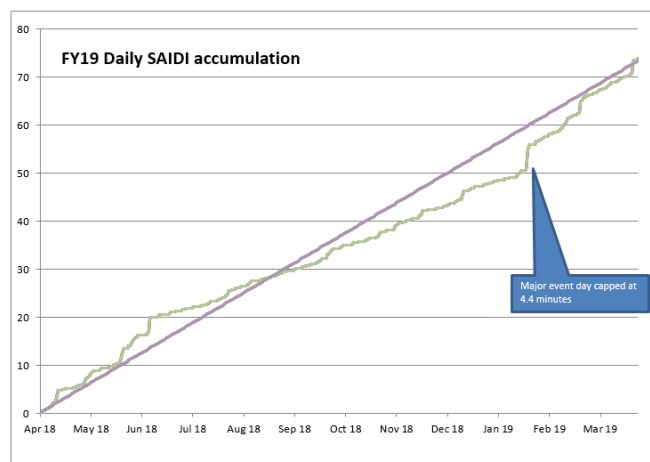
59.1 comply with the annual reliability requirement for the assessment period (FY19), or

59.2 have complied with the annual reliability requirement in both the preceding two extant assessment periods (FY17 and FY18).

60 This year we have met our compliance obligation by satisfying the second of the two requirements.

REASON FOR NON-COMPLIANCE IN FY19 ANNUAL ASSESSMENT

- 61 Orion's duration of outages exceeded the annual limit in FY19 by 34 seconds or 0.8%. This occurred during a mild year with relatively few extreme events, but against a reducing limit over the course of the CPP period, and an increasing level of planned outages (mainly to meet capacity upgrade and customer driven expansion requirements).
- 62 The CPP limits were proposed and set at an early stage in our earthquake recovery, and presumed a return to pre-quake reliability levels over the five year CPP period. However, it is now clear that, while our reliability results rate very favourably in the wider New Zealand context, our normal operation differs from pre-quake levels. We are pleased that the current year's result is so close to the limit, but we consider that normal variability, particularly in relation to weather events, could easily have led to a higher result.
- 63 For context, the graph below shows the progressive accumulation of SAIDI minutes during the year.




- 64 It is appropriate that this new-normal for our reliability be accommodated and reflected with the regulatory reset under the default price path that is set to apply from 1 April 2021.


TRANSACTIONS

Large transactions and amalgamations

- 65 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.
- 66 We have not completed an amalgamation or merger during the assessment period in terms of clause 9.2 of the CPP determination.
- 67 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

Electricity delivery price schedule for Orion NZ Ltd			
(applicable from 1 April 2018 to 31 March 2019)			
<p>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.</p>			
All prices exclude GST	Price Component Code ³	Delivery Price	Unit of measure
Streetlighting connections			
Fixed charge	STFXD	0.1211	\$/con/day
Peak charge (peak period demand)	GENPK	0.5181	\$/kW/day
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.09316	\$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01193	\$/kWh
General connections			
Peak charge (peak period demand)	GENPK	0.5181	\$/kW/day
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.09316	\$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01193	\$/kWh
Low power factor charge	LOWPF	0.2000	\$/kVA/day
Irrigation connections			
Capacity charge	ICCAP	0.4350	\$/kW/day*
Volume charge			
Weekdays (Mon to Fri, 7am to 9pm)	VOLWD	0.09316	\$/kWh
Nights & weekends (Sat & Sun)	VOLNW	0.01193	\$/kWh
Rebates			
Power factor correction rebate	ICPFC	(0.1793)	\$/kVA/day*
Interruptibility rebate	ICIRR	(0.0448)	\$/kW/day*
* applied from 1 October to 31 March only			
Major customer and embedded network connections			
Fixed charge	MCFXD	7.5000	\$/con/day
Extra switches	EQESW	3.6100	\$/switch/day
11kV Metering equipment	EQMET	4.3700	\$/con/day
11kV Underground cabling	EQUGC	3.2300	\$/km/day
11kV Overhead lines	EQOHL	2.0300	\$/km/day
Transformer capacity	EQTFC	0.0135	\$/kVA/day
Peak charge (control period demand)	MCCPD	0.4730	\$/kVA/day
Nominated maximum demand	MCNMD	0.1102	\$/kVA/day
Metered maximum demand	MCMMD	0.0862	\$/kVA/day
Large capacity 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 <i>Pricing Policy</i> 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 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 Code³	Delivery Price	All prices exclude GST
Streetlighting connections		<i>approx 48,266 connections</i>	
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		<i>approx 198,087 connections</i>	
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		<i>approx 1,102 connections</i>	
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		<i>approx 404 connections</i>	
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		<i>12 connections</i>	
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 <i>Pricing Policy</i> 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 credit schedule for Orion NZ Ltd



(applicable from 1 April 2018 to 31 March 2019)

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

(excluding GST)

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	Unit of measure
0 - 30kW generation ²				
Anytime credits (without PV), or	Anytime	EXPA	0.00920	\$/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	0.64290	\$/kWh
30 - 750kW Control period credits ⁴				
- real power, plus	Chargeable control period	EXPCP1	0.2202	\$/kW/day
- reactive power ⁵		EXPCP2	0.0277	\$/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. The credit quantity 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 14 connections are approved for export credits.

Generation credit pricing (closed)

(excluding GST)

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	Unit of measure
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 9 connections are approved for generation credits.

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 period	EXPCP1	0.2221	\$/kW/day
- reactive power ⁵		EXPCP2	0.0298	\$/kVAr/day
above 750kW	<i>Individually assessed prices provided on application</i>			

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.

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 (October 2018) is shown for amounts that remain the same for most of the year, together with additional invoices from the few occasions where amounts varied.

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.

Reference	Description	Amount	
Arthurs Pass	Connection Charge for Oct 2018	13,625.51	✓
Arthurs Pass	Interconnection Charge for Oct 2018	1,772.92	✓
	Sub-Total Arthurs Pass		15,398.43
Bromley	Connection Charge for Oct 2018	143,110.61	✓
Bromley	Interconnection Charge for Oct 2018	990,083.43	✓
	Sub-Total Bromley		1,133,194.04
Castle Hill	Connection Charge for Oct 2018	10,888.43	✓
Castle Hill	Interconnection Charge for Oct 2018	3,043.35	✓
	Sub-Total Castle Hill		13,931.78
Coleridge	Connection Charge for Oct 2018	12,470.87	✓
Coleridge	Interconnection Charge for Oct 2018	1,981.49	✓
	Sub-Total Coleridge		14,452.36
Hororata	Connection Charge for Oct 2018	32,706.28	✓
Hororata	Interconnection Charge for Oct 2018	120,150.60	✓
	Sub-Total Hororata		152,856.88
Islington	Connection Charge for Oct 2018	146,233.13	✓
Islington	Interconnection Charge for Oct 2018	4,331,821.19	✓
	Sub-Total Islington		4,478,054.32
Kimberley	Interconnection Charge for Oct 2018	37,477.73	✓



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New Zealand

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OR117060

Orion New Zealand Limited
PO BOX 13896
CHRISTCHURCH 8141



Tax Invoice 0001108978
GST No: 50-038-057
Invoice Date: 29/10/2018
Customer ID: ORON
Account Manager: Nicola Downes-Hogg
Due Date: 20/11/2018
Page: 1



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<p>Orion New Zealand Limited PO BOX 13896 CHRISTCHURCH 8141</p>	<p>Tax Invoice 0001108978 GST No: 50-038-057 Invoice Date: 29/10/2018 Customer ID: ORON Account Manager: Nicola Downes-Hogg Due Date: 20/11/2018 Page: 2 of 2</p>
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Reference	Description	Amount	
Kimberley	Connection Charges at Kimberley for Oct 2018	1,766.35 ✓	
	Sub-Total Kimberley		39,244.08
		Net Total:	\$5,847,131.89 ✓
		GST:	\$877,069.78
		Total:	\$6,724,201.67

*ok to pay .
 [Signature] . 30/10/18 .*



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<p>Orion New Zealand Limited PO BOX 13896 CHRISTCHURCH 8141</p>	<p>Tax Invoice 0001108979 GST No: 50-038-057 Invoice Date: 29/10/2018 Customer ID: ORON Account Manager: Nicola Downes-Hogg Due Date: 20/11/2018 Page: 1 of 1</p>
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Reference	Description	Amount	
Bromley	New Investment Charge - Bromley Third 220/66 kV Transformer T7 for Oct 2018	64,000.00 ✓	
R206730	58720.91		
	Sub-Total Bromley		64,000.00
B615010	5279.09		
Hororata	New Investment Charge for additional 66kV feeder for Oct 2018	1,960.41 ✓	
R206730	444.31		
B615010	1496.10		
Hororata	New Investment Charge for Hororata Connection for Fonterra Dairy Factory for Oct 2018	1,919.00 ✓	
R206730	54.19		
B615010	1352.81		
	Sub-Total Hororata		3,879.41
Islington	CIC Charge for ADD and MLN Asset Transfer Build ISL-CUS-12366-ORON for Oct 2018	7,464.21 ✓	
R206730	2811.45		
B615010	4652.76		
Islington	CIC Charge for Islington 66kV Metering project for Papanui and Springston - Final for Oct 2018	13,218.00 ✓	
R206730	7022.80		
B615010	6195.20		
	Sub-Total Islington		20,682.21
Kimberley	New Investment Charge for Kimberley for Oct 2018	84,471.00 ✓	
R206730	21806.44		
B615010	62664.56		
	Sub-Total Kimberley		84,471.00
		Net Total:	\$173,032.62 ✓
		GST:	\$25,954.89
		Total:	\$198,987.51

ok to pay.
D. 30/10/18

UR121/82



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<p>Orion New Zealand Limited PO BOX 13896 CHRISTCHURCH 8141</p>	<p>Tax Invoice 0001106970 GST No: 50-038-057 Invoice Date: 30/04/2018 Customer ID: ORON Account Manager: Nicola Downes-Hogg Due Date: 20/05/2018 Page: 1</p>
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Reference	Description	Amount	
Arthurs Pass	Connection Charge for Apr 2018	13,625.51 ✓	
Arthurs Pass	Interconnection Charge for Apr 2018	1,772.92 ✓	
	Sub-Total Arthurs Pass		15,398.43
Bromley	Connection Charge for Apr 2018	143,110.61 ✓	<i>- reduction for t.b. taken out of service</i>
Bromley	Interconnection Charge for Apr 2018	990,083.43 ✓	
	Sub-Total Bromley		1,133,194.04
Castle Hill	Connection Charge for Apr 2018	10,888.43 ✓	
Castle Hill	Interconnection Charge for Apr 2018	3,043.35 ✓	
	Sub-Total Castle Hill		13,931.78
Coleridge	Connection Charge for Apr 2018	12,470.87 ✓	
Coleridge	Interconnection Charge for Apr 2018	1,981.49 ✓	
	Sub-Total Coleridge		14,452.36
Hororata	Connection Charge for Apr 2018	33,424.07 ✓	
Hororata	Interconnection Charge for Apr 2018	120,150.60 ✓	
	Sub-Total Hororata		153,574.67
Islington	Connection Charge for Apr 2018	147,237.41 OK	<i>... idk too much</i>
Islington	Interconnection Charge for Apr 2018	4,331,821.19 ✓	
	Sub-Total Islington		4,479,058.60
Kimberley	Interconnection Charge for Apr 2018	37,477.73 ✓	



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<p>Orion New Zealand Limited PO BOX 13896 CHRISTCHURCH 8141</p> <div style="border: 1px solid blue; padding: 5px; width: fit-content; margin: 10px auto;"> <p style="text-align: center; color: blue; font-weight: bold;">RECEIVED</p> <p style="text-align: center; color: blue;">31 JAN 2019</p> </div>	<p>Tax Invoice 0001109947 GST No: 50-038-057 Invoice Date: 29/01/2019 Customer ID: ORON Account Manager: Nicola Downes-Hogg Due Date: 20/02/2019 Page: 1 of 1</p>
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Reference	Description	Amount	
Bromley	New Investment Charge - Bromley Third	64,000.00 ✓	
R206730 58608.10	220/66 kV Transformer T7 for Jan 2019		
B615010 5391.90	Sub-Total Bromley		64,000.00
Hororata	Early Payment of New Investment Charge	✓ 139,179.00	Clm to code <i>cd</i>
B615010 136,665.53	for additional 66kV feeder for Jan 2019		
R206730 2513.47			
Hororata	New Investment Charge for Hororata	1,919.00 ✓	
R206730 531.98	Connection for Fonterra Dairy Factory		
B615010 1387.02	for Jan 2019		
	Sub-Total Hororata		141,098.00
Islington	CIC Charge for ADD and MLN Asset	7,464.21 ✓	
R206730 2420.10	Transfer Build ISL-CUS-12366-ORON for		
B615010 5034.11	Jan 2019		
Islington	CIC Charge for Islington 66kV Metering	13,218.00 ✓	
R206730 6839.58	project for Papanui and Springston -		
B615030 6378.42	Final for Jan 2019		
	Sub-Total Islington		20,682.21
Kimberley	New Investment Charge for Kimberley for	84,471.00 ✓	
R206730 20082.01	Jan 2019		
B615010 64388.99	Sub-Total Kimberley		84,471.00
			<i>OK to pay cd 31/1/19</i>
Net Total:			\$310,251.21
GST:			\$46,537.68
Total:			\$356,788.89

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	FY19	FY18
Asset return	8.68%	8.26%
Maintenance recovery rate substations	1.76%	1.83%
Maintenance recovery rate tower lines	\$3,928 / km	\$4,980 / km
Operating recovery rate 66kV	\$1,384 / switch	\$1,207 / 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 charge) using updated asset return, operating and maintenance figures, as follows:

		Addington/Middleton avoided connection charge claim					
		Charges recalculated using standard recovery rates					
		2018/19					
Asset	Asset Id	Asset return %	Maintenance recovery Rate	Maintenance recovery on 66kV	Number of Switches	Operating recovery on 66kV Line	Total avoided
		8.68%	1.76%	\$3,928 /km		\$1,384 /switch	
Addington		Addington					
		No residual land charge	531,381.28	107,745.51			639,126.79
Substation	Addington	Charged at ISL instead					
Substation	Islington						
Transformer	T2	78,065.27	15,828.90				93,894.17
Transformer	T3	78,065.27	15,828.90				93,894.17
Transformer	T5	64,405.17	13,059.11				77,464.28
Transformer	T6	85,873.56	17,412.15				103,285.71
Transformer	T7	64,405.17	13,059.11				77,464.28
Switchgear	3	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	4	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	5	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	6	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	7	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	8	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	9	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	10	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	11	6,922.85	1,403.71		0.90	1,245.60	9,572.16
Switchgear	28	7,135.64	1,446.86		1.00	1,384.00	9,966.50
Switchgear	29	7,135.64	1,446.86		1.00	1,384.00	9,966.50
Switchgear	30	7,135.64	1,446.86		1.00	1,384.00	9,966.50
Switchgear	42	41,721.93	8,459.75		3.60	4,982.40	55,164.08
Switchgear	52	28,496.76	5,778.14		4.00	5,536.00	39,810.90
Switchgear	62	41,721.93	8,459.75		3.60	4,982.40	55,164.08
Switchgear	72	19,441.01	3,941.96		2.00	2,768.00	26,150.97
Switchgear	82	19,441.01	3,941.96		2.00	2,768.00	26,150.97
Switchgear	92	19,441.01	3,941.96		2.00	2,768.00	26,150.97
Switchgear	102	28,496.76	5,778.14		2.00	2,768.00	37,042.90
Switchgear	112	19,441.01	3,941.96		2.00	2,768.00	26,150.97
Switchgear	122	41,721.93	8,459.75		3.70	5,120.80	55,302.48
Switchgear	132	41,721.93	8,459.75		4.00	5,536.00	55,717.68
Switchgear	142	41,721.93	8,459.75		3.70	5,120.80	55,302.48
Switchgear	172	41,721.93	8,459.75		3.60	4,982.40	55,164.08
Switchgear	252	41,721.93	8,459.75		4.00	5,536.00	55,717.68
Switchgear	592	28,496.76	5,778.14		4.00	5,536.00	39,810.90
Switchgear	2642	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2662	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2672	6,749.67	1,368.60		1.00	1,384.00	9,502.27
Switchgear	2682	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2698	6,529.17	1,323.89		1.00	1,384.00	9,237.06
Switchgear	2702	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2722	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2742	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2762	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2782	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2798	6,529.17	1,323.89		1.00	1,384.00	9,237.06
Switchgear	2802	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2812	6,749.67	1,368.60		1.00	1,384.00	9,502.27
Switchgear	2822	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2842	6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	127-117	6,808.68	1,380.56		2.00	2,768.00	10,957.24
Switchgear	147-137	6,808.68	1,380.56		2.00	2,768.00	10,957.24
Switchgear	67-57	6,808.68	1,380.56		2.00	2,768.00	10,957.24

Continued ...

Switchgear	87-77		6,808.68	1,380.56		2.00	2,768.00	10,957.24
Switchgear	97-107		6,808.68	1,380.56		2.00	2,768.00	10,957.24
Switchgear	RM122		3,898.48	790.48				4,688.96
Switchgear	RM142		3,898.48	790.48				4,688.96
Switchgear	RM172		3,898.48	790.48				4,688.96
Switchgear	RM2672		2,699.69	547.40				3,247.09
Switchgear	RM28		2,641.22	535.55				3,176.77
Switchgear	RM2812		2,699.69	547.40				3,247.09
Switchgear	RM29		2,641.22	535.55				3,176.77
Switchgear	RM30		2,641.22	535.55				3,176.77
Switchgear	RM42		3,898.48	790.48				4,688.96
Switchgear	RM62		3,898.48	790.48				4,688.96
Switchgear	VT124		1,431.61	290.28				1,721.89
Switchgear	VT144		1,431.61	290.28				1,721.89
Switchgear	VT174		1,431.61	290.28				1,721.89
Switchgear	VT44		1,431.61	290.28				1,721.89
Switchgear	VT64		1,431.61	290.28				1,721.89
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		461,209.65		48,167.45			429,914.27
Line	ADD_ISLB		297,070.85		48,167.45			291,381.12
Line	Cable_MLN		-	-				-
Other	R5		7,062.82	1,432.09				8,494.91
Other	R6		7,062.82	1,432.09				8,494.91
Other	R7		7,062.82	1,432.09				8,494.91
							Total	2,795,243.55
Middleton		Middleton						
Substation	Islington	Charged at ISL instead	745,524.45	151,166.25				-
Substation	Middleton	No residual land charge	-	-				-
Transformer	T5		64,405.17	13,059.11				-
Transformer	T6		85,873.56	17,412.15				-
Transformer	T7		64,405.17	13,059.11				-
Switchgear	52		28,496.76	5,778.14				-
Switchgear	72		19,441.01	3,941.96				-
Switchgear	92		19,441.01	3,941.96				-
Switchgear	112		19,441.01	3,941.96				-
Switchgear	132		41,721.93	8,459.75				-
Switchgear	252		41,721.93	8,459.75				-
Switchgear	592		28,496.76	5,778.14				-
Switchgear	127-117		6,808.68	1,380.56				-
Switchgear	147-137		6,808.68	1,380.56				-
Switchgear	67-57		6,808.68	1,380.56				-
Switchgear	87-77		6,808.68	1,380.56				-
Switchgear	97-107		6,808.68	1,380.56				-
Switchgear	VT124		1,431.61	290.28				-
Switchgear	VT174		1,431.61	290.28				-
Switchgear	VT44		1,431.61	290.28				-
Switchgear	VT64		1,431.61	290.28				-
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		4,548.33		0.90	1,245.60	5,793.93
Switchgear	416	Asset cost covered under CIC		4,548.33		0.90	1,245.60	5,793.93
Switchgear	RM406	Asset cost covered under CIC		790.48				790.48
Switchgear	RM416	Asset cost covered under CIC		790.48				790.48
Line	ADD_ISLA		461,209.65		48,167.45			79,462.83
Line	ADD_ISLB		297,070.85		48,167.45			53,857.17
Line	Cable_MLN		-	-				-
Other	R5		7,062.82	1,432.09			-	-
Other	R6		7,062.82	1,432.09			-	-
Other	R7		7,062.82	1,432.09			-	-
							Total	146,488.82

2,941,732.37

Bromley avoided connection charge claim								
Charges recalculated using standard recovery rates								
2018/19								
Land proportion purchased							8.64%	
Asset	Asset Id		Asset return %	Maintenance recovery Rate	Maintenance recovery on 66kV Line	Number of Switches	Operating recovery on 66kV Line	Total avoided
Substation	Bromley	Partial purchase (proportion of land)	8.68%	1.76%	\$3,928 /km		\$1,384 /switch	
Transformer	T2		18,037.05	3,657.28				21,694.33
Transformer	T3		92,261.65	18,707.43				110,969.08
Transformer	T4		69,196.24	14,030.57				83,226.81
Transformer	T5	Not purchased	92,261.65	18,707.43				110,969.08
Transformer	T6	Not purchased						
Transformer	T7	Not purchased						
Switchgear	62		18,975.64	3,847.60		2.00	2,768.00	25,591.24
Switchgear	72		41,721.93	8,459.75		3.80	5,259.20	55,440.88
Switchgear	88		25,348.14	5,139.72		3.00	4,152.00	34,639.86
Switchgear	92		-	-		0.00	-	-
Switchgear	102		18,975.64	3,847.60		2.00	2,768.00	25,591.24
Switchgear	112		41,721.93	8,459.75		3.70	5,120.80	55,302.48
Switchgear	122		41,721.93	8,459.75		3.80	5,259.20	55,440.88
Switchgear	142	Nil charges	-	-		0.00	-	-
Switchgear	148		25,348.14	5,139.72		3.00	4,152.00	34,639.86
Switchgear	154	Asset cost covered under CIC	-	1,108.31		1.00	1,384.00	2,492.31
Switchgear	162		28,463.46	5,771.39		2.00	2,768.00	37,002.85
Switchgear	172	Asset cost covered under CIC	-	8,459.75		3.70	5,120.80	13,580.55
Switchgear	182		41,721.93	8,459.75		3.70	5,120.80	55,302.48
Switchgear	207	renumber 214, purchasing	5,465.98	1,108.31		1.00	1,384.00	7,958.29
Switchgear	407	renumber 54, purchasing	1,711.71	347.07		1.00	1,384.00	3,442.78
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 etc avo	-	1,294.08		0.90	1,245.60	2,539.68
Switchgear	2582		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2592		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2602		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2612		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2622		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2632		6,749.67	1,368.60		1.00	1,384.00	9,502.27
Switchgear	2642		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2652		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2662		6,749.67	1,368.60		1.00	1,384.00	9,502.27
Switchgear	2672		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2682		6,382.17	1,294.08		0.90	1,245.60	8,921.85
Switchgear	2638		9,901.02	2,007.58		1.00	1,384.00	13,292.60
Switchgear	2712		6,382.17	1,294.08		0.90	1,245.60	8,921.85

Continued ...

Switchgear	2722		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2732		6,749.67	1,368.60	1.00	1,384.00	9,502.27
Switchgear	2742		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2752		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2762		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2772		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2782		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2792		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2802		6,382.17	1,294.08	0.90	1,245.60	8,921.85
Switchgear	2812	Asset cost covered under CIC	-	1,294.08	0.90	1,245.60	2,539.68
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 awi	2,699.69	547.40		-	3,247.09
Switchgear	RM2662	Metering not purchased, but charge still awi	2,699.69	547.40		-	3,247.09
Switchgear	RM2732	Metering not purchased, but charge still awi	2,699.69	547.40		-	3,247.09
Switchgear	RM432	Not purchased					
Switchgear	RM532	Not purchased					
Switchgear	RM572	Not purchased					
Switchgear	VT1		3,579.03	725.70		-	4,304.73
Switchgear	VT2		3,579.03	725.70		-	4,304.73
Switchgear	VT37	Nil charges					
Line	BRY_ISLA	Not purchased					
Other	ATC	Not purchased					
Other	BC5	Asset cost not in 2014 Transpower data					
Other	B2IP42	Not purchased					
Other	B2PP43	Nil charges					
Other	R2		7,228.20	1,465.63		-	8,693.83
Other	R3		7,228.20	1,465.63		-	8,693.83
Other	R4		7,228.20	1,465.63		-	8,693.83
		Total					985,189.29

		Islington / Hororata avoided connection charge claim							
		Avoided charges recalculated using standard recovery rates							
		FY2019 - applicable after 3 April 2018							
Asset	Asset Id	Asset return %	Maintenance recovery Rate	Maintenance recovery on 66kV Line	Number of Switches	Operating recovery on 66kV Line	Proportion of year avoided (2 days of 30 were charged at pre-	Total avoided	
		8.68%	1.76%	\$3,928 /km		\$1,384 /switch			
Hororata									
Substation	Hororata	reduced to 59.43%	120,789.60	24,491.90			5.55	0.994	8,018.32
Transformer	T5	Not purchased							
Transformer	T8	Not purchased							
Switchgear	52	Not purchased							
Switchgear	82	Not purchased							
Switchgear	142	Not purchased							
Switchgear	152	Not purchased							
Switchgear	1202	Purchased	10,946.78	2,219.62	3.70	5,120.80	100	0.994	18,185.60
Switchgear	1212	Purchased	12,196.21	2,472.97	2.00	2,768.00	100	0.994	17,340.31
Switchgear	1222	Purchased	10,946.78	2,219.62	3.70	5,120.80	100	0.994	18,185.60
Switchgear	1242	Purchased	10,946.78	2,219.62	3.70	5,120.80	100	0.994	18,185.60
Switchgear	1262	Purchased	10,946.78	2,219.62	3.70	5,120.80	100	0.994	18,185.60
Switchgear	1272	Purchased	12,196.21	2,472.97	2.00	2,768.00	100	0.994	17,340.31
Switchgear	1217-1227	Purchased	3,151.37	638.99	2.00	2,768.00	100	0.994	6,521.92
Switchgear	1257-1267	Purchased	3,151.37	638.99	2.00	2,768.00	100	0.994	6,521.92
Switchgear	FM1212	Not purchased							
Switchgear	FM1272	Not purchased							
Switchgear	FM152	Not purchased							
Switchgear	FM152	Not purchased							
Switchgear	VT154	Not purchased							
Switchgear	VT54	Not purchased							
Islington									
Substation	Islington	reduced to 14.08%, but it is	745,524.45	151,166.25			1.1	0.994	9,808.80
Transformer	T1	Not purchased							
Transformer	T2	Not purchased							
Switchgear	92	Not purchased							
Switchgear	112	Not purchased							
Switchgear	122	Not purchased							
Switchgear	142	Not purchased							
Switchgear	152	Not purchased							
Switchgear	172	Not purchased							
Switchgear	192	Not purchased							
Switchgear	202	Not purchased							
Switchgear	222	Not purchased							
Switchgear	242	Not purchased							
Switchgear	262	Not purchased							
Switchgear	272	Not purchased							
Switchgear	302	Not purchased							
Switchgear	322	Not purchased							
Switchgear	412	Not purchased							
Switchgear	422	Not purchased							
Switchgear	882	Purchased	12,239.91	2,481.82	3.70	5,120.80	100	0.994	19,732.29
Switchgear	932	Purchased	12,239.91	2,481.82	3.70	5,120.80	100	0.994	19,732.29
Switchgear	962	Purchased	12,239.91	2,481.82	3.70	5,120.80	100	0.994	19,732.29
Switchgear	972	Purchased	12,239.91	2,481.82	3.70	5,120.80	100	0.994	19,732.29
Switchgear	982	Purchased	11,153.59	2,261.56	2.00	2,768.00	100	0.994	16,093.24
Switchgear	1022	Purchased		3,806.10	3.70	5,120.80	100	0.994	8,877.31
Switchgear	1032	Purchased	12,239.91	2,481.82	3.70	5,120.80	100	0.994	19,732.29
Switchgear	2058	Purchased	4,965.96	1,006.92	1.00	1,384.00	100	0.994	7,316.01
Switchgear	2062	Purchased	4,327.54	877.47	0.90	1,245.60	100	0.994	6,414.77
Switchgear	2072	Purchased	4,327.54	877.47	0.90	1,245.60	100	0.994	6,414.77
Switchgear	2082	Purchased	4,327.54	877.47	0.90	1,245.60	100	0.994	6,414.77
Switchgear	2092	Purchased	4,327.54	877.47	0.90	1,245.60	100	0.994	6,414.77
Switchgear	2102	Purchased	4,327.54	877.47	0.90	1,245.60	100	0.994	6,414.77
Switchgear	2112	Purchased	4,626.80	938.15	1.00	1,384.00	100	0.994	6,910.34
Switchgear	FM112	Not purchased							
Switchgear	FM122	Not purchased							
Switchgear	FM142	Not purchased							
Switchgear	FM152	Not purchased							
Switchgear	FM172	Not purchased							
Switchgear	FM192	Not purchased							
Switchgear	FM202	Not purchased							
Switchgear	FM2112	Not purchased							
Switchgear	FM222	Not purchased							
Switchgear	FM242	Not purchased							
Switchgear	FM262	Not purchased							
Switchgear	FM272	Not purchased							
Switchgear	FM302	Not purchased							
Switchgear	FM322	Not purchased							
Switchgear	FM92	Not purchased							
Switchgear	FM982	Not purchased							
Total								308,226.25	

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
FY2014	Ministry of Business Innovation & Employment Levy - Prior period wash up for 2013/14	Pass through cost	Commerce Act levies		(56,072.57)	18/10/2018
Q4 to 30 June 2018	Ministry of Business Innovation & Employment Levy	Pass through cost	Commerce Act levies		73,906.23	31/08/2018
Q1 to 30 Sept 2018	Ministry of Business Innovation & Employment Levy	Pass through cost	Commerce Act levies		130,105.95	2/11/2018
Q2 to 31 Dec 2018	Ministry of Business Innovation & Employment Levy	Pass through cost	Commerce Act levies		130,105.95	20/02/2019
Q3 to 31 Mar 2019	Ministry of Business Innovation & Employment Levy	Pass through cost	Commerce Act levies		130,105.95	20/03/2019
2017/18	Ministry of Business Innovation & Employment Levy wash up	Pass through cost	Commerce Act levies		14,794.05	11/01/2019
FY2019	Utilities Disputes Charge	Pass through cost	Utilities Disputes Charge		109,383.88	20/04/2018
April 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		46,089.78	25/05/2018
May 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		51,987.64	22/06/2018
June 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		55,523.61	20/07/2018
July 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		56,568.71	20/08/2018
August 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		55,537.64	20/09/2018
September 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		51,040.65	23/10/2018
October 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		49,944.54	23/11/2018
November 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		45,576.45	20/12/2018
December 2018	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		43,607.53	21/01/2019
January 2019	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		47,088.51	20/02/2019
February 2019	Electricity Authority Levy	Pass through cost	Electricity Authority Levy		45,632.09	20/03/2019
March 2019	Electricity Authority Levy March 2018 Accrual	Pass through cost	Electricity Authority Levy		46,992.13	23/04/2019
FY2018	Electricity Authority Levy FY2018 Washup	Pass through cost	Electricity Authority Levy		(7,480.78)	28/02/2019
FY2019	Accrue reversal Christchurch City Council rates on leased properties	Pass through Cost	Local authority rates		(6,999.71)	20/04/2018
FY2019	Actual Christchurch City Council rates on leased properties	Pass through Cost	Local authority rates		9,332.94	20/04/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
FY2019	Christchurch City Council area 1 inst 4	Pass through Cost	Local authority rates		4,273.19	15/05/2018
FY2019	Christchurch City Council area 1 inst 4	Pass through Cost	Local authority rates		48,862.06	15/05/2018
FY2019	Christchurch City Council area 1 inst 4	Pass through Cost	Local authority rates		738,911.54	15/05/2018
FY2019	Christchurch City Council area 3 inst 4	Pass through Cost	Local authority rates		15,289.12	31/05/2018
FY2019	Christchurch City Council area 2 inst 4	Pass through Cost	Local authority rates		32,405.68	15/06/2018
FY2019	Selwyn District Council Inst 4	Pass through Cost	Local authority rates		24,427.96	1/06/2018
FY2019	Selwyn District Council inst 4	Pass through Cost	Local authority rates		27,806.04	1/06/2018
FY2019	Christchurch City Council area 3 inst 4 correction	Pass through Cost	Local authority rates		46,116.42	31/05/2018
FY2019	Christchurch City Council area 1 inst 1	Pass through Cost	Local authority rates		4,530.19	15/08/2018
FY2019	Christchurch City Council area 1 inst 1	Pass through Cost	Local authority rates		51,328.68	15/08/2018
FY2019	Christchurch City Council area 1 inst 1	Pass through Cost	Local authority rates		772,841.90	15/08/2018
FY2019	Selwyn District Council Inst 1	Pass through Cost	Local authority rates		26,981.91	14/09/2018
FY2019	Selwyn District Council Inst 1	Pass through Cost	Local authority rates		28,478.04	14/09/2018
FY2019	Christchurch City Council area 2 inst 1	Pass through Cost	Local authority rates		33,588.52	14/09/2018
FY2019	Christchurch City Council area 3 inst 1	Pass through Cost	Local authority rates		65,046.85	31/08/2018
FY2019	Christchurch City Council area 1 inst 2	Pass through Cost	Local authority rates		4,530.19	15/11/2018
FY2019	Christchurch City Council area 1 inst 2	Pass through Cost	Local authority rates		51,177.05	15/11/2018
FY2019	Christchurch City Council area 1 inst 2	Pass through Cost	Local authority rates		772,841.89	15/11/2018
FY2019	Christchurch City Council area 2 inst 2	Pass through Cost	Local authority rates		33,633.02	14/12/2018
FY2019	Christchurch City Council area 3 inst 2	Pass through Cost	Local authority rates		64,873.85	30/11/2018
FY2019	Selwyn District Council inst 2	Pass through Cost	Local authority rates		26,981.91	14/12/2018
FY2019	Selwyn District Council Inst 2	Pass through Cost	Local authority rates		28,473.61	14/12/2018
FY2019	Christchurch City Council area 1 inst 3	Pass through Cost	Local authority rates		4,530.19	15/02/2019
FY2019	Christchurch City Council area 1 inst 3	Pass through Cost	Local authority rates		51,177.05	15/02/2019
FY2019	Christchurch City Council area 1 inst 3	Pass through Cost	Local authority rates		772,841.89	15/02/2019
FY2019	Christchurch City Council area 3 Inst 3	Pass through Cost	Local authority rates		64,873.85	22/02/2019
FY2019	Selwyn District Council inst 3	Pass through Cost	Local authority rates		26,981.91	15/03/2019
FY2019	Selwyn District Council inst 3	Pass through Cost	Local authority rates		28,480.61	15/03/2019
FY2019	Christchurch City Council area 2 inst 3	Pass through Cost	Local authority rates		33,633.02	15/03/2019
FY2019	Accrue for Christchurch City Council rates on leased pptides	Pass through Cost	Local authority rates		6,616.25	23/04/2019
FY2015 to FY2019	CPP application auditing charge	Recoverable Cost	CPP Auditor Fee	80,000.00	20,259.67	21/01/2013

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
FY2015 to FY2019	CPP application 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
FY2015 to FY2019	CPP application verifier charge	Recoverable Cost	CPP Verifier Fee	63,626.57	15,809.50	22/04/2013
April 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	21/05/2018
April 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	21/05/2018
April 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	21/05/2018
April 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	21/05/2018
April 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		33,424.07	21/05/2018
April 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		147,237.41	21/05/2018
April 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	21/05/2018
April 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	21/05/2018
April 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	21/05/2018
April 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	21/05/2018
April 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	21/05/2018
April 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	21/05/2018
April 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	21/05/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
April 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	21/05/2018
April 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	21/05/2018
April 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	21/05/2018
April 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	21/05/2018
April 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	21/05/2018
April 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	21/05/2018
April 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	21/05/2018
May 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/06/2018
May 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/06/2018
May 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/06/2018
May 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/06/2018
May 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/06/2018
May 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/06/2018
May 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/06/2018
May 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/06/2018
May 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/06/2018
May 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/06/2018
May 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/06/2018
May 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/06/2018
May 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/06/2018
May 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/06/2018
May 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/06/2018
May 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	20/06/2018
May 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/06/2018
May 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/06/2018
May 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/06/2018
May 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/06/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
June 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/07/2018
June 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/07/2018
June 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/07/2018
June 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/07/2018
June 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/07/2018
June 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/07/2018
June 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/07/2018
June 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/07/2018
June 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/07/2018
June 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/07/2018
June 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/07/2018
June 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/07/2018
June 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/07/2018
June 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/07/2018
June 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/07/2018
June 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	20/07/2018
June 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/07/2018
June 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/07/2018
June 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/07/2018
June 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/07/2018
July 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/08/2018
July 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/08/2018
July 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/08/2018
July 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/08/2018
July 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/08/2018
July 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/08/2018
July 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/08/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
July 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/08/2018
July 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/08/2018
July 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/08/2018
July 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/08/2018
July 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/08/2018
July 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/08/2018
July 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/08/2018
July 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/08/2018
July 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	20/08/2018
July 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/08/2018
July 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/08/2018
July 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/08/2018
July 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/08/2018
August 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/09/2018
August 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/09/2018
August 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/09/2018
August 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/09/2018
August 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/09/2018
August 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/09/2018
August 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/09/2018
August 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/09/2018
August 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/09/2018
August 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/09/2018
August 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/09/2018
August 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/09/2018
August 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/09/2018
August 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/09/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
August 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/09/2018
August 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	20/09/2018
August 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/09/2018
August 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/09/2018
August 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/09/2018
August 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/09/2018
September 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	22/10/2018
September 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	22/10/2018
September 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	22/10/2018
September 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	22/10/2018
September 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	22/10/2018
September 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	22/10/2018
September 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	22/10/2018
September 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	22/10/2018
September 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	22/10/2018
September 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	22/10/2018
September 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	22/10/2018
September 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	22/10/2018
September 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	22/10/2018
September 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	22/10/2018
September 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	22/10/2018
September 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	22/10/2018
September 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	22/10/2018
September 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	22/10/2018
September 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	22/10/2018
September 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	22/10/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
October 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/11/2018
October 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/11/2018
October 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/11/2018
October 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/11/2018
October 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/11/2018
October 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/11/2018
October 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/11/2018
October 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/11/2018
October 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/11/2018
October 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/11/2018
October 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/11/2018
October 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/11/2018
October 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/11/2018
October 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/11/2018
October 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/11/2018
October 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	20/11/2018
October 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/11/2018
October 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/11/2018
October 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/11/2018
October 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/11/2018
November 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/12/2018
November 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/12/2018
November 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/12/2018
November 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/12/2018
November 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/12/2018
November 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/12/2018
November 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/12/2018
November 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/12/2018

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
November 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/12/2018
November 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/12/2018
November 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/12/2018
November 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/12/2018
November 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/12/2018
November 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/12/2018
November 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/12/2018
November 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	20/12/2018
November 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/12/2018
November 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/12/2018
November 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/12/2018
November 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/12/2018
December 2018	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	21/01/2019
December 2018	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	21/01/2019
December 2018	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	21/01/2019
December 2018	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	21/01/2019
December 2018	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	21/01/2019
December 2018	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	21/01/2019
December 2018	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	21/01/2019
December 2018	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	21/01/2019
December 2018	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	21/01/2019
December 2018	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	21/01/2019
December 2018	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	21/01/2019
December 2018	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	21/01/2019
December 2018	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	21/01/2019
December 2018	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	21/01/2019
December 2018	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	21/01/2019

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
December 2018	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		1,960.41	21/01/2019
December 2018	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	21/01/2019
December 2018	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	21/01/2019
December 2018	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	21/01/2019
December 2018	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	21/01/2019
January 2019	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/02/2019
January 2019	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/02/2019
January 2019	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/02/2019
January 2019	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/02/2019
January 2019	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/02/2019
January 2019	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/02/2019
January 2019	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/02/2019
January 2019	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/02/2019
January 2019	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/02/2019
January 2019	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/02/2019
January 2019	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/02/2019
January 2019	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/02/2019
January 2019	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/02/2019
January 2019	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/02/2019
January 2019	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/02/2019
January 2019	Hororata Additional 66kV feeder (bay 150) NIC accelerated repayment	Recoverable cost	Transpower new investment contract		139,179.00	20/02/2019
January 2019	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/02/2019
January 2019	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/02/2019
January 2019	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/02/2019
January 2019	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/02/2019
February 2019	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	20/03/2019

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
February 2019	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	20/03/2019
February 2019	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	20/03/2019
February 2019	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	20/03/2019
February 2019	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	20/03/2019
February 2019	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	20/03/2019
February 2019	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	20/03/2019
February 2019	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	20/03/2019
February 2019	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	20/03/2019
February 2019	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	20/03/2019
February 2019	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	20/03/2019
February 2019	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	20/03/2019
February 2019	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	20/03/2019
February 2019	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	20/03/2019
February 2019	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	20/03/2019
February 2019	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		0.00	
February 2019	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	20/03/2019
February 2019	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	20/03/2019
February 2019	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	20/03/2019
February 2019	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	20/03/2019
March 2019	Arthurs Pass GXP Connection charge	Recoverable cost	Transpower connection charge		13,625.51	22/04/2019
March 2019	Bromley GXP Connection charge	Recoverable cost	Transpower connection charge		143,110.61	22/04/2019
March 2019	Castle Hill GXP Connection charge	Recoverable cost	Transpower connection charge		10,888.43	22/04/2019
March 2019	Coleridge GXP Connection charge	Recoverable cost	Transpower connection charge		12,470.87	22/04/2019
March 2019	Hororata GXP Connection charge	Recoverable cost	Transpower connection charge		32,706.28	22/04/2019
March 2019	Islington GXP Connection charge	Recoverable cost	Transpower connection charge		146,233.13	22/04/2019
March 2019	Kimberley GXP Connection charge	Recoverable cost	Transpower connection charge		1,766.35	22/04/2019
March 2019	Arthurs Pass GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,772.92	22/04/2019
March 2019	Bromley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		990,083.43	22/04/2019

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
March 2019	Castle Hill GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		3,043.35	22/04/2019
March 2019	Coleridge GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		1,981.49	22/04/2019
March 2019	Hororata GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		120,150.60	22/04/2019
March 2019	Islington GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		4,331,821.19	22/04/2019
March 2019	Kimberley GXP Interconnection charge	Recoverable cost	Transpower interconnection charge		37,477.73	22/04/2019
March 2019	Bromley Third Transformer (T7) NIC charge	Recoverable cost	Transpower new investment contract		64,000.00	22/04/2019
March 2019	Hororata Additional 66kV feeder (bay 150) NIC charge	Recoverable cost	Transpower new investment contract		0.00	
March 2019	Hororata 33kV bus and 66kV line alterations NIC charge	Recoverable cost	Transpower new investment contract		1,919.00	22/04/2019
March 2019	Islington metering for ADD & MLN Feeders NIC charge	Recoverable cost	Transpower new investment contract		7,464.21	22/04/2019
March 2019	Islington metering for PAP & SPN Feeders	Recoverable cost	Transpower new investment contract		13,218.00	22/04/2019
March 2019	Kimberley 66kV GXP Connection NIC charge	Recoverable cost	Transpower new investment contract		84,471.00	22/04/2019
May to Aug 2018	Export credits (transmission part)	Recoverable cost	Avoided transmission charges (Export credits)		100,606.14	20/11/2018
Sept 2017 to Aug 2018	Export credits (transmission part)	Recoverable cost	Avoided transmission charges (Export credits)		6,324.92	20/02/2019
May 2018	Generation credits (transmission part)	Recoverable cost	Avoided transmission charges (Generation credits)		4,301.60	20/06/2018
June 2018	Generation credits (transmission part)	Recoverable cost	Avoided transmission charges (Generation credits)		9,682.40	20/07/2018
September 2018	Generation credits (transmission part)	Recoverable cost	Avoided transmission charges (Generation credits)		1,372.70	22/10/2018
FY2019	Transpower connection charges avoided following partial purchase of Bromley grid exit (forth assessment period following the assessment period in which the purchase occurred)	Recoverable cost	Avoided transmission charges (Partial purchase of Bromley grid exit)	Nil	985,189.29	NA
FY2019	Transpower connection charges avoided following purchase of Addington & Middleton grid exits (third assessment period following the assessment period in which the purchase occurred)	Recoverable cost	Avoided transmission charges (Purchase of Addington/Middleton grid exit)	Nil	2,941,732.37	NA

Period covered	Charge	Cost type	Subtotal group	Amount paid if different (excl GST)	Amount claimed (excl GST)	Date paid
FY2019	Transpower connection charges avoided following Partial purchase of Hororata/Islington grid exit assets (purchased during the assessment period)	Recoverable cost	Avoided transmission charges (Partial purchase of Hororata/Islington grid exit)	Nil	308,226.25	NA
Total					82,189,635.08	

Subtotals

Cost Type Grouping

Recoverable cost	77,174,329.52
Pass through cost	5,015,305.56
	82,189,635.08

Subtotal group Grouping

Local authority rates	3,894,867.62
Electricity Authority Levy	588,108.50
Commerce Act levies	422,945.56
Utilities Disputes Charge	109,383.88
Avoided transmission charges (Export credits)	106,931.06
Avoided transmission charges (Generation credits)	15,356.70
Avoided transmission charges (Purchase of Addington/Middleton grid exit)	2,941,732.37
Avoided transmission charges (Partial purchase of Bromley grid exit)	985,189.29
Avoided transmission charges (Partial purchase of Hororata/Islington grid exit)	308,226.25
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	4,331,336.23
Transpower interconnection charge	65,835,968.52
Transpower new investment contract	2,209,689.21
	82,189,635.08

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;

PV₁₄ 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, Deborah Jane Taylor 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.



Deborah Jane Taylor

7 June 2019



Bruce Donald Gemmell

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 2019 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 2019, 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 7 June 2019 and our opinion is expressed as at that date.



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