Orion New Zealand Limited

Electricity Distribution Services
Default Price-Quality Path
Determination 2020

Annual price-setting compliance statement

For prices applying from 1 April 2021
Issued 25 February 2021

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Contents

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 210,000 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 35% 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 Orion is subject to the Electricity Distribution Services Default Price-Quality Path Determination 2020 (the Determination) set by the Commerce Commission and applying for the five-year regulatory period from 1 April 2020 to 31 March 2025.

5 The Determination requires us to issue an "annual price-setting compliance statement" prior to the start of each assessment period, as well as an "annual compliance statement" within 5 months after the end of each assessment period to demonstrate compliance, or otherwise, with the requirements of the Determination.

6 This annual price-setting compliance statement covers the information requirements detailed in clause 11 of the Determination in relation to prices applying from 1 April 2021 to 31 March 2022, the second assessment period in the five-year regulatory period.

COMPLIANCE STATEMENT

7 Orion has complied with the price path in clause 8.4 of the Determination, with forecast revenue from prices of $227,606.3k being less than the lesser of:

- forecast allowable revenue of $230,647.6k; and
- forecast revenue from prices in the previous assessment period of $227,988.4k plus 10%, i.e. $250,787.2k.

8 This statement was prepared and certified on 25 February 2021

9 This statement has been certified by a director of Orion and a copy of this certification is attached.

10 Details supporting compliance follow.

SUPPORTING INFORMATION

11 Clause 8.4 of the Determination requires that forecast revenue from prices in respect to the second to fifth assessment periods does not exceed the lesser of:

- forecast allowable revenue for that assessment period; and
- forecast revenue from prices in the previous assessment period plus 10% being the limit on the annual percentage increase in forecast revenue from prices.

12 Note that all prices, charges, costs and revenue figures in this document are stated excluding GST.

Forecast revenue from prices

13 Forecast revenue from prices is calculated as the sum of each price multiplied by each corresponding forecast quantity.

14 The schedule of prices that we have set for the assessment period (as published on our website) is included in appendix A.

15 Our basis for determining forecast quantities is set out in appendix B. To demonstrate the reasonableness of our forecasts we include a description of our basis for establishing the forecast, the prior period forecast, and the actual quantity from the period before that.

16 Multiplying the two together provides our forecast revenue from prices of $227,606.3k, as shown in the following table.

Forecast revenue from prices worksheet

	FY2022 Delivery Prices		FY2022 Forecast Quantities	Days applicable	Price x Quantity
Streetlighting, general and irrigation connections					($000)
Streetlighting fixed charge	0.0954	$/con/day	51,113.0 cons	365 days	1,779.8
General fixed charge	0.1500	$/con/day	208,311.0 cons	365 days	11,405.0
Streetlighting and general connections Peak charge (peak period demand)	0.3995	$/kW/day	470,219 kW	365 days	68,566.2
Streetlighting, general and irrigation connections volume charge					
Weekdays (Mon to Fri, 7am - 9pm)	0.06755	$/kWh	1,140,636 MWh		77,050.0
Nights & weekends (Sat & Sun)	0.01844	$/kWh	1,304,258 MWh		24,050.5
General connections					
Low power factor charge	0.2000	$/kVAr/day	0 kVAr	365 days	-
Irrigation connections					
Capacity charge	0.4383	$/kW/day	76,469 kW	182 days	6,100.0
Power factor correction rebate	(0.1618)	$/kVAr/day	23,778 kVAr	182 days	(700.2)
Interruptibility rebate	(0.0405)	$/kW/day	49,266 kW	182 days	(363.1)
Major customer connections and embedded networks					
Fixed charge	10.0000	$/con/day	409.0 cons	365 days	1,492.9
Fixed charge (additional connections)	5.0000	$/con/day	94.0 cons	365 days	171.6
Extra switches	3.3300	$/switch/day	108.0 switches	365 days	131.3
11k Metering equipment	4.3400	$/con/day	41.0 cons	365 days	64.9
11kV Underground cabling	3.4000	$/km/day	7.3 km	365 days	9.1
11kV Overhead lines	2.1400	$/km/day	3.0 km	365 days	2.3
Transformer capacity	0.0119	$/kVA/day	351,424.0 kVA	365 days	1,526.4
Peak charge (control period demand)	0.3757	$/kVA/day	111,579.0 kVA	365 days	15,300.9
Nominated maximum demand	0.1034	$/kVA/day	276,387.0 kVA	365 days	10,431.1
Metered maximum demand	0.0769	$/kVA/day	231,578.0 kVA	365 days	6,500.0
Large capacity connections					
Synlait					
Distribution services					
Ops, maint & admin (dedicated assets)	10.630	$/kVA/year	19,000.0 kVA	365 days	202.0
Ops, maint & admin (shared assets)	23.290	$/kVA/year	18,500.0 kVA	365 days	430.9
Asset charge (dedicated assets)	11.280	$/kVA/year	19,000.0 kVA	365 days	214.3
Asset charge (shared assets)	26.440	$/kVA/year	18,500.0 kVA	365 days	489.1
Transmission services					
Interconnection charge (winter)	57.750	$/kVA/year	4,610.0 kVA	365 days	266.2
Interconnection charge (summer)	48.900	$/kVA/year	15,730.0 kVA	365 days	769.2
Connection charge	4.840	$/kVA/year	15,730.0 kVA	365 days	76.1
Fonterra					
Distribution services					
Ops, maint & admin (dedicated assets)	6.130	$/kVA/year	16,000.0 kVA	365 days	98.1
Ops, maint & admin (shared assets)	10.600	$/kVA/year	13,300.0 kVA	365 days	141.0
Asset charge (dedicated assets)	14.290	$/kVA/year	16,000.0 kVA	365 days	228.6
Asset charge (shared assets)	24.690	$/kVA/year	13,300.0 kVA	365 days	328.4
Transmission services					
Interconnection charge (winter)	56.390	$/kVA/year	1,820.0 kVA	365 days	102.6
Interconnection charge (summer)	47.740	$/kVA/year	11,130.0 kVA	365 days	531.3
Connection charge	1.450	$/kVA/year	11,130.0 kVA	365 days	16.1
Customer investment contract charge	12.020	$/kVA/year	16,000.0 kVA	365 days	192.3
Export credits					
Real power component	(0.0704)	$/kW/day	449.6 kW	365 days	(11.6)
Reactive power component	(0.0231)	$/kVAr/day	117.5 kVAr	365 days	(1.0)
Miscellaneous					
Monthly invoice charge	30.00	$/invoice	432.0 invoices		13.0
Failure to pay notice	50.00	$/notice	12.0 notices		0.6
Default and termination notice	100.00	$/notice	3.0 notices		0.3
Forecast Revenue from Prices $_{FY2022}$					**227,606.3**

Forecast allowable revenue

17 The calculation of forecast allowable revenue (FAR) is set out in Schedule 1.5 of the determination as:

FAR = FNAR + FPRC + OWAB + PTBA

where

FNAR is the forecast net allowable revenue;

FPRC is the forecast pass-through and recoverable costs;

OWAB is the opening wash-up account balance; and

PTBA is the pass-through balance allowance.

18 The calculation of each of these components is set out below.

Forecast net allowable revenue (FNAR)

19 FNAR is stated for Orion in Schedule 1.4 of the Determination as $161,589.0k for the second assessment period.

Forecast pass-through and recoverable costs (FPRC)

20 FPRC is defined as the sum of all forecast pass-through costs and forecast recoverable costs, excluding any recoverable cost that is a revenue wash-up draw down amount. Schedule 1.5 of the Determination further requires that these forecasts must be demonstrably reasonable.

21 The following table sets out the individual components that we have included in the calculation of FPRC. To demonstrate the reasonableness of the amounts we include a description of our basis for establishing the forecast, the prior period forecast, and the actual cost from the period before that.

Forecast pass-through and recoverable costs	IM reference[1]	Basis of forecast	FY22 forecast	FY21 forecast	FY20 actual
			$000	$000	$000
Transpower charges					
Connection	3.1.3(1)(b)	Set to the amounts advised by Transpower in its pricing update	4,117.0	3,771.5	4,452.4
Interconnection	3.1.3(1)(b)		57,479.1	56,930.6	52,705.7
New investment	3.1.3(1)(c)		975.2	1,646.4	2,052.9
			62,571.3	62,348.5	59,211.0
Avoided transmission charges					
Addington/Middleton connection charges avoided	3.1.3(1)(e)	Final allowable claim was in FY21	0	2,798.0	2,779.3
Hororata and Islington charges avoided (third assessment period following the assessment period in which the purchase occurred)	3.1.3(1)(e)	Calculated in accordance with Determination schedule 5.1 clause 1(a)(i) – the amount determined by Transpower for the year preceding the assessment period in which the charge was first recovered	309.9	309.9	304.0
Bromley connection charges avoided	3.1.3(1)(e)	Final allowable claim was in FY20	0	0	986.9
			309.9	3,108.0	4,070.3

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

Incentives					
IRIS incentive adjustment	3.1.3(1)(a)	Nil for assessment period	0	0	4,032.9
Other recoverable costs					
Capex wash-up adjustment	3.1.3(1)(p)	Calculated in accordance with IM reference 3.1.3(8). Refer to appendix D for further details	733.2	NA	NA
FENZ levy	3.1.3(1)(w)	Set to align with updated estimates for FY21	113.7	100.0	NA
Pass-through costs					
Local authority rates on system fixed assets	3.1.2(2)(a)	Set to align with updated estimates for FY21	4,296.8	4,213.0	4,111.7
Commerce Commission Levies	3.1.2(2)(b)(i)		364.3	505.0	515.9
Electricity Authority Levies	3.1.2(2)(b)(ii)		651.1	616.0	565.8
Utilities Disputes Levies	3.1.2(2)(b)(iii)		119.6	113.0	112.8
			5,431.7	5,447.0	5,306.2
Total pass-through and recoverable costs			**69,159.8**	**71,003.5**	**72,620.4**

22 For all pass-through and recoverable cost allowances that are not stated in the table above, we have considered each allowance and determined that they are not applicable for Orion in the assessment period, and our forecast for each amount is nil.

Opening wash-up account balance (OWAB)

23 The opening wash-up account balance is specified in Schedule 1.7 of the Determination and provides for the under or over recovery against allowable revenue to be carried forward, with interest. It is specified as nil for the first and second assessment periods in the regulatory period.

Pass-through balance allowance (PTBA)

24 The pass-through balance allowance provides for any under or over recovery of pass-through costs during the prior regulatory period to be carried forward in prices.

25 Following the end of our customised price-quality path, Orion was only subject to the prior DPP determination for a single year, and the pass-through balance is simply the amount accumulated in that year (ending 31 March 2020).

26 An estimate of the pass-through balance was included in the first assessment period, with any residual applied in this the second assessment period.

27 The pass-through balance (PTB) was calculated in accordance with clause 8.6 of the Electricity Distribution Services Default Price-Quality Path Determination 2015:

$$PTB_{2020} = \sum_{i} PTP_{i,2020} Q_{i,2020} - K_{2020} - V_{2020}$$

where

i denotes each pass-through price;

PTP is the i^{th} pass-through price;

Q is the quantity corresponding to the i^{th} pass-through price;

K is the sum of all pass-through costs relating to the assessment period; and

V is the sum of all recoverable costs relating to the assessment period.

28 We determined for the first assessment period that the estimated pass-through balance (ePTB) was -$1,478.7k.

29 In our Annual Compliance statement for the year ending 31 March 2020, we disclosed a pass-though balance for the period ending 31 March 2020 of -$1,385.6k based on updated chargeable quantities and actual pass-through costs. Further details are provided in Appendix C.

30 The pass-through balance allowance for the second assessment period was calculated in accordance with the formula:

$$PTBA = (ePTB - pass\ through\ balance)\ x\ (1 + 67^{th}\ percentile\ post - tax\ WACC)^2$$

where

67^{th} percentile post-tax WACC is 4.23%.

31 Therefore, the residual pass-through balance allowance for the second assessment period is:

(-$1,478.7k – -$1,385.6k) x $(1 + 4.23\%)^2$ = -$101.2k

32 And, forecast allowable revenue (FAR) is:

FAR = FNAR + FPRC + OWAB + PTBA

= $161,589.0k + $69,159.8k + $0.0k - $101.2k

= $230,647.6k

APPENDIX A – DELIVERY AND EXPORT PRICE SCHEDULES FOR FY22

Electricity delivery price schedule for Orion NZ Ltd

(applicable from 1 April 2021)

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.

All prices exclude GST	Price Category Code[3]	Price Component Code[3]	Delivery Price	Unit of measure
Streetlighting connections	LIG			
Fixed charge		STFXD	0.0954	$/con/day
Peak charge (peak period demand)		GENPK	0.3995	$/kW/day
Volume charge				
Weekdays (Mon to Fri, 7am to 9pm)		VOLWD	0.06755	$/kWh
Nights & weekends (Sat & Sun)		VOLNW	0.01844	$/kWh
General connections	GEN			
Fixed charge		GENFXD	0.1500	$/con/day
Peak charge (peak period demand)		GENPK	0.3995	$/kW/day
Volume charge				
Weekdays (Mon to Fri, 7am to 9pm)		VOLWD	0.06755	$/kWh
Nights & weekends (Sat & Sun)		VOLNW	0.01844	$/kWh
Low power factor charge		LOWPF	0.2000	$/kVAr/day
Irrigation connections	IRR			
Capacity charge		ICCAP	0.4383	$/kW/day*
Volume charge				
Weekdays (Mon to Fri, 7am to 9pm)		VOLWD	0.06755	$/kWh
Nights & weekends (Sat & Sun)		VOLNW	0.01844	$/kWh
Rebates				
Power factor correction rebate		ICPFC	(0.1618)	$/kVAr/day*
Interruptibility rebate		ICIRR	(0.0405)	$/kW/day*
* applied from 1 October to 31 March only				
Major customer and embedded network connections	MCC			
Fixed charge		MCFXD	10.0000	$/con/day
Fixed charge (additional connections)		MCFXDA	5.0000	$/con/day
Extra switches		EQESW	3.3300	$/switch/day
11kV Metering equipment		EQMET	4.3400	$/con/day
11kV Underground cabling		EQUGC	3.4000	$/km/day
11kV Overhead lines		EQOHL	2.1400	$/km/day
Transformer capacity		EQTFC	0.0119	$/kVA/day
Peak charge (control period demand)		MCCPD	0.3757	$/kVA/day
Nominated maximum demand		MCNMD	0.1034	$/kVA/day
Metered maximum demand		MCMMD	0.0769	$/kVA/day
Large capacity connections	LCC			
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
Failure to pay notice		INVFTP	50.00	$/notice
Default and termination notice		INVDAT	100.00	$/notice

Notes

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

Export credit schedule for Orion NZ Ltd

(applicable from 1 April 2021)

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 exporting generators that were in place prior to 6 December 2016 and approved by the Electricity Authority an additional credit reflecting any actual savings in Transpower charges is available (at the date of issue of this schedule, no exporting generators have been approved by the Electricity Authority). In addition to applying for our distribution credit, exporting customers can approach Transpower (for example, under Transpower's demand response program) for recognition of any transmission benefit, and approach their electricity retailer for recognition of the value of energy exported.

Export credits are based on electricity exported only during specific time periods. Our prices for credits are:

(excluding GST)

Generator rated output	Period applied	Credit prices	Price Component Code[3]	Unit of measure
0 - 30kW generation[2]				
Anytime credits (without PV), or	Anytime	0.00290	EXPA	$/kWh
Anytime credits (with PV)	(24 hours, 7 days)	0.00010	EXPAPV	$/kWh
0 - 30kW generation[2]				
Peak period credits (with or without PV)	Chargeable peak period	0.20560	EXPPP	$/kWh
30 - 750kW Control period credits[4]				
- real power, plus	Chargeable control	0.0704	EXPCP1	$/kW/day
- reactive power[5]	period	0.0231	EXPCP2	$/kVAr/day
above 750kW	*Individually assessed prices provided on application*			

Notes for export credit pricing

1. Full details, including metering requirements and how credit prices are applied, are available in our *Export Credits Policy* document available on our 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 365/366 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 11 connections are approved for export credits.

APPENDIX B – BASIS OF FORECAST QUANTITIES FOR FY22

Quantity forecasts for FY22

Price component	Units	Forecast FY22	Updated forecast FY21	Actual FY20	Basis of forecast
Streetlighting connections					
Fixed charge	Connections	51,113	50,335	49,470	6 year linear trend
Peak charge (peak period demand)	kW	1,881	2,171	2,223	7 year average with an 11.6% reduction to account for CCC's rollout of LED lighting
Volume charge					
Weekdays (Mon to Fri, 7am - 9pm)	MWh	2,526	2,877	3,229	Last year's estimate with a 12.2% reduction to account for CCC's rollout of LED lighting
Nights & weekends (Sat Sun)	MWh	17,023	19,388	21,684	
General Connections					
Fixed charge	Connections	208,311	205,017	201,043	7 year linear trend
Peak charge (peak period demand)	kW	468,338	470,129	468,952	6 year average. Values prior to FY20 adjusted for structural re-categorisations.
Volume charge					
Weekdays (Mon to Fri, 7am - 9pm)	MWh	1,083,046	1,071,995	1,066,676	8 year linear trend. Values prior to FY20 adjusted for structural re-categorisations.
Nights & weekends (Sat Sun)	MWh	1,208,599	1,184,583	1,205,983	
Low power factor charge	kVAr	0	0	0	Assume no customers have this applied
Irrigation connections					
Capacity charge	kW	76,469	77,106	77,078	Post CPW stage 2 trend
Volume charge					
Weekdays (Mon to Fri, 7am - 9pm)	MWh	55,064	60,997	57,611	Estimate based on linear regression model using chargeable capacity and historical NIWA rainfall data. Added additional 6GWh to cover Apr-Sep.
Nights & weekends (Sat Sun)	MWh	78,636	86,969	82,274	
Rebates					
Power factor correction rebate	kVAr	23,778	23,958	25,375	Post CPW stage 2 trend
Interruptibility rebate	kW	49,266	49,498	49,842	
Major customer connections & embedded networks					
Fixed charge	Connections	409	397	486	Existing major customer connections plus works in progress with expected completion dates prior to April 2022
Fixed charge (additional connections)	Connections	94	93	NA	
Dedicated equipment					
Extra switches	Switches	108.0	107.0	103.3	Existing major customer connections
11kV Metering equipment	Connections	41.0	40.8	41.9	
11kV Underground cabling	km	7.3	7.3	7.3	
11kV Overhead lines	km	3.0	3.0	3.0	
Transformer capacity	kVA	351,424	333,135	327,781	Existing major customer connections plus works in progress with expected completion dates prior to April 2022
Peak charge (control period demand)	kVA	111,579	111,617	108,145	Based on HH metering data for existing major customer connections for 12 months ending Sep-20 plus estimates for new connections
Nominated maximum demand	kVA	276,387	260,889	258,547	
Metered maximum demand	kVA	231,578	225,402	227,303	
Large capacity connections					
Distribution charges					Individually assessed using historical loading levels and input from the customer
Ops, maint & admin (dedicated assets)	kVA	19,000.0	19,000.0	19,000.0	
Ops, maint & admin (shared assets)	kVA	18,500.0	18,290.0	18,400.0	
Asset charge (dedicated assets)	kVA	19,000.0	19,000.0	19,000.0	
Asset charge (shared assets)	kVA	18,500.0	18,290.0	18,400.0	
Ops, maint & admin (dedicated assets)	kVA	16,000.0	16,000.0	16,000.0	
Ops, maint & admin (shared assets)	kVA	13,300.0	13,430.0	14,270.0	
Asset charge (dedicated assets)	kVA	16,000.0	16,000.0	16,000.0	
Asset charge (shared assets)	kVA	13,300.0	13,430.0	14,270.0	
Transmission charges					
Interconnection charge (winter)	kVA	4,610.0	4,390.0	6,044.7	
Interconnection charge (summer)	kVA	15,730.0	15,550.0	10,541.2	
Connection charge	kVA	15,730.0	15,550.0	10,541.2	
Interconnection charge (winter)	kVA	1,820.0	1,781.6	1,601.9	
Interconnection charge (summer)	kVA	11,130.0	11,230.0	11,078.2	
Connection charge	kVA	11,130.0	11,230.0	11,078.2	
Customer investment contract charge	kVA	16,000.0	16,000.0	16,000.0	
Export credits					
0 - 30kW generation					There are no connections currently approved to receive these credits and no applications have been received pending approval
Anytime (without PV)	kWh	0.0	0.0	0.0	
Anytime (with PV)	kWh	0.0	0.0	0.0	
Peak period (with or without PV)	kWh	0.0	0.0	0.0	
30 - 750kW generation					With the removal of transmission credits on 1 April 2019 following Electricity Authority rule changes we observed a large reduction in generation during our chargeable control periods in FY20. Until a clear trend is observed we have adopted the same quantity as last year for our FY22 projection
Control period real power	kW	449.6	449.6	538.7	
Control period reactive power	kVAr	117.5	117.5	153.1	
Miscellaneous					
Monthly invoice and contract charge	Invoices	432	437	427	27 retailers and 9 major directs
Failure to pay notice	Notices	12	9	4	
Default and termination notice	Notices	3	3	1	

APPENDIX C – Pass-through account balance

The pass-through balance (PTB) was calculated in accordance with the formula stated in clause 8.6 of Electricity Distribution Services Default Price-Quality Path Determination 2015:

$$PTB_t = \sum_i PTP_{i,t} Q_{i,t} - K_t - V_t$$

For FY20 we calculated a pass-through balance of:

PTB = \$71,234.8k – \$67,314.1k – \$5,306.2k

= -\$1,385.6k

Pass-through revenue (PTR)

$\sum_i PTP_{i,t} Q_{i,t}$

	Pass-through prices						Actual pass-through revenue			
Components (i)	**Transmission price**	**Incentives and recoveries price**	**Rates and levies price**	**Units**	**Actual quantities** (as at 21 April 2020)	**Days applicable**	**Transmission revenue**	**Incentives and recoveries revenue**	**Rates andlevies revenue**	**Total forecast pass-through revenue**
Days in price/quantity year						366 days				
	$	$	$				($000)	($000)	($000)	**($000)**
Streetlighting, general and irrigation connections										
Streetlighting fixed charge	(0.0038)	0.0038	0.0049	$/con/day	49,470.2 cons	366 days	(68.8)	68.8	88.7	**88.7**
General fixed charge	0.0000	0.0426	0.0551	$/con/day	201,017.4 cons	366 days	-	3,134.2	4,053.8	**7,188.0**
Streetlighting and general connections										
Peak charge (peak period demand)	0.1450	0.0000	0.0000	$/kW/day	471,158 kW	366 days	25,004.4	-	-	**25,004.4**
Streetlighting, general and irrigation connections volume charge										
Weekdays (Mon to Fri, 7am - 9pm)	0.01517	0.00000	0.00000	$/kWh	1,136,591 MWh		17,242.1	-	-	**17,242.1**
Nights & weekends (Sat & Sun)	0.00297	0.00000	0.00000	$/kWh	1,316,909 MWh		3,911.2	-	-	**3,911.2**
General connections										
Low power factor charge	0.0500	0.0000	0.0000	$/kVAr/day	0 kVAr	366 days	-	-	-	-
Irrigation connections										
Capacity charge	0.0630	0.0172	0.0223	$/kW/day	77,139 kW	183 days	889.3	242.8	314.8	**1,446.9**
Power factor correction rebate	0.0000	0.0000	0.0000	$/kVAr/day	25,429 kVAr	183 days	-	-	-	-
Interruptibility rebate	0.0000	0.0000	0.0000	$/kW/day	49,885 kW	183 days	-	-	-	-
Major customer connections and embedded networks										
Fixed charge	0.0000	0.0000	0.0000	$/con/day	485.85 cons	366 days	-	-	-	-
Extra switches	0.0000	0.0000	0.0000	$/switch/day	103.29 switches	366 days	-	-	-	-
11k Metering equipment	0.0000	0.0000	0.0000	$/con/day	41.91 cons	366 days	-	-	-	-
11kV Underground cabling	0.0000	0.0000	0.0000	$/km/day	7.30 km	366 days	-	-	-	-
11kV Overhead lines	0.0000	0.0000	0.0000	$/km/day	3.00 km	366 days	-	-	-	-
Transformer capacity	0.0000	0.0000	0.0000	$/kVA/day	327,781.36 kVA	366 days	-	-	-	-
Peak charge (control period demand)	0.1507	0.0000	0.0000	$/kVA/day	108,144.63 kVA	366 days	5,964.8	-	-	**5,964.8**
Nominated maximum demand	0.0090	0.0056	0.0073	$/kVA/day	258,547.44 kVA	366 days	851.7	529.9	690.8	**2,072.4**
Metered maximum demand	0.0713	0.0000	0.0000	$/kVA/day	227,302.74 kVA	366 days	5,931.6	-	-	**5,931.6**
Large capacity connections										
Distribution services										
Ops, maint & admin (dedicated assets)	0.000	0.441	0.000	$/kVA/year	19,000.0 kVA		-	8.4	-	**8.4**
Ops, maint & admin (shared assets)	0.000	1.202	0.000	$/kVA/year	18,400.0 kVA		-	22.1	-	**22.1**
Asset charge (dedicated assets)	0.000	0.000	0.582	$/kVA/year	19,000.0 kVA		-	-	11.1	**11.1**
Asset charge (shared assets)	0.000	0.000	1.587	$/kVA/year	18,400.0 kVA		-	-	29.2	**29.2**
Ops, maint & admin (dedicated assets)	0.000	0.339	0.000	$/kVA/year	16,000.0 kVA		-	5.4	-	**5.4**
Ops, maint & admin (shared assets)	0.000	0.548	0.000	$/kVA/year	14,270.0 kVA		-	7.8	-	**7.8**
Asset charge (dedicated assets)	0.000	0.000	0.645	$/kVA/year	16,000.0 kVA		-	-	10.3	**10.3**
Asset charge (shared assets)	0.000	0.000	0.501	$/kVA/year	14,270.0 kVA		-	-	7.1	**7.1**
Transmission services										
Interconnection charge (winter)	54.290	0.000	0.000	$/kVA/year	6,044.7 kVA		328.2	-	-	**328.2**
Interconnection charge (summer)	44.840	0.000	0.000	$/kVA/year	10,541.2 kVA		472.7	-	-	**472.7**
Connection charge	5.600	0.000	0.000	$/kVA/year	10,541.2 kVA		59.0	-	-	**59.0**
Interconnection charge (winter)	52.980	0.000	0.000	$/kVA/year	1,601.9 kVA		84.9	-	-	**84.9**
Interconnection charge (summer)	43.800	0.000	0.000	$/kVA/year	11,078.2 kVA		485.2	-	-	**485.2**
Connection charge	1.290	0.000	0.000	$/kVA/year	11,078.2 kVA		14.3	-	-	**14.3**
Customer investment contract charge	52.430	0.000	0.000	$/kVA/year	16,000.0 kVA		838.9	-	-	**838.9**
Pass-through revenue (PTR_{2020})							**62,009.5**	**4,019.4**	**5,205.9**	**71,234.8**

Forecast pass-through and recoverable costs

				Transmission costs ($000)	Incentives and recoveries ($000)	Rates and levies ($000)	Total costs ($000)
K_{2020}	is the sum of all pass-through costs relating to the 2020 assessment period						
		IM Clause	DPP Ref				
	Local authority rates on system fixed assets	3.1.2(2)(a)				4,111.7	4,111.7
	Commerce Commission Levies	3.1.2(2)(b)(i)				515.9	515.9
	Electricity Authority Levies	3.1.2(2)(b)(ii)				565.8	565.8
	Utilities Disputes Levies	3.1.2(2)(b)(iii)				112.8	112.8
	Other levies or costs	3.1.2(1)(b)				Nil	
V_{2020}	is the sum of all recoverable costs relating to the 2020 assessment period						
		IM Clause	DPP Ref				
	Incremental rolling incentive scheeme allowance	3.1.3(1)(a) & 3.3.2(2)			4,032.9		4,032.9
	Transpower charges under the TPM	3.1.3(1)(b)					
	Connection			4,452.4			4,452.4
	Interconnection			52,705.7			52,705.7
	Transpower new investment contract charges	3.1.3(1)(c)		2,052.9			2,052.9
	System operator charges	3.1.3(1)(d)		Nil			Nil
	Avoided transmission charges from asset transfers	3.1.3(1)(e)	Schedule 5E				
	Bromley connection charges avoided (fifth assessment period following the assessment period in which the purchase occurred)		Clause 1(a)(ii)	986.9			986.9
	Addington/Middleton purchase (fourth assessment period following the assessment period in which the purchase occurred)		Clause 1(a)(ii)	2,779.3			2,779.3
	Islington/Hororata partial purchase (first Assessment Period following the purchase)		Clause 1(b)(i)	304.0			304.0
	Distributed generation allowance	3.1.3(1)(f)		Nil			
	Claw-back	3.1.3(1)(g)	Schedule 5C		Nil		
	CPP Application fee	3.1.3(1)(h)			Nil		
	CPP Assessment fee	3.1.3(1)(i)			Nil		
	CPP Verifier fee	3.1.3(1)(j)			Nil		
	CPP Audit fee	3.1.3(1)(k)			Nil		
	CPP Engineer fee	3.1.3(1)(l)			Nil		
	Energy efficiency and demand side management incentive allowance	3.1.3(1)(m)	Schedule 5A		Nil		
	Catastrophic event allowance	3.1.3(1)(n)			Nil		
	Extended reserves allowance	3.1.3(1)(o)	Schedule 5H		Nil		
	Quality incentive adjustment	3.1.3(1)(p)	Schedule 5B		Nil		
	Capex wash-up adjustment	3.1.3(1)(q)			Nil		
	Transmission asset wash-up adjustment	3.1.3(1)(r)	Schedule 5F		Nil		
	2013-15 NPV wash-up allowance	3.1.3(1)(s)	Schedule 5D		Nil		
	Reconsideration event allowance	3.1.3(1)(t)			Nil		
Total pass-through costs				**63,281.3**	**4,032.9**	**5,306.2**	**72,620.4**

APPENDIX D – CAPEX WASH-UP ALLOWANCE

In setting starting prices for the current DPP regulatory period the Commerce Commission used a forecast value of commissioned assets for the year ending 31 March 2020 for the purpose of determining building blocks allowable revenue (BBAR).

The Electricity Distribution Services Input Methodologies Determination 2012 (IMs) contain a clause - 3.1.3(1)(p) - requiring EDBs to calculate a capex wash-up by determining the difference in BBAR from adopting the actual value of commissioned assets instead of the forecast value of commissioned assets. The wash-up is applied across years 2 to 5 of the regulatory period.

The capex wash-up must be calculated in accordance with clause 3.1.3(9)(b) of the IMs. We achieved this by replacing the forecast value of commissioned assets with the actual value of commissioned assets[2] in the Commerce Commission's financial model[3]. The value of commissioned assets and BBAR before and after are shown in the table below.

	Forecast ($000)	Actual ($000)	Difference ($000)
Value of commissioned assets for year ending 31 March 2020	66,443.0	78,414.0	11,970.0
Building blocks allowable revenue	734,520.0	737,329.0	2,809.0

The capex wash-up allowance was calculated in accordance with the formula:

$$\left(\frac{capex\ wash-up\ adjustment}{l-1}\right) x(1+r)^{y+0.5}$$

where

l is 5 being the number of years in the DPP regulatory period;

r is 2.92% being the cost of debt applying to the DPP regulatory period; and

y is the number of disclosure years preceding the disclosure year in question in the DPP regulatory period.

Hence, the capex wash-up allowance applying to the second assesment period is:

$$\left(\frac{\$2{,}809k}{5-1}\right) x(1+2.92\%)^{1+0.5} = \$733.2k$$

The following table shows the allowance for each assessment period in the DPP regulatory period.

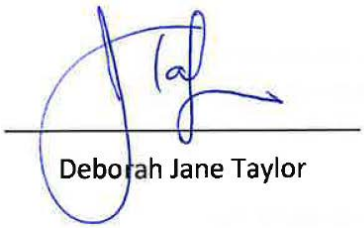
Assessment period	Capex wash-up allowance ($000)
2	733.2
3	754.6
4	776.6
5	799.3

[2] The actual value of commissioned assets for the year ending 31 March 2020 was disclosed in Orion's Information Disclosure for the year ended 31 March 2020.

[3] https://comcom.govt.nz/__data/assets/excel_doc/0025/191464/Financial-model-EDB-DPP3-final-determination-27-November-2019.xlsx

DIRECTOR'S CERTIFICATE FOR ANNUAL PRICE-SETTING 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 annual price-setting compliance statement of Orion New Zealand Limited, and related information, prepared for the purposes of the *Electricity Distribution Services Default Price-Quality Path Determination 2020* has been prepared in accordance with all the relevant requirements, and all forecasts used in the calculations for forecast revenue from prices and forecast allowable revenue are reasonable.



Deborah Jane Taylor

Bruce Donald Gemmell

25 February 2021