



Orion New Zealand Limited

Electricity Distribution Services  
Default Price-Quality Path Determination 2020

# Annual compliance statement

For the year ending 31 March 2021

Issued 23 August 2021

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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 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 around 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 compliance statement" within 5 months after the end of each assessment period, as well as an "annual price-setting compliance statement" prior to the start of each assessment period to demonstrate compliance, or otherwise, with the requirements of the Determination.
- 6 This annual compliance statement covers information requirements detailed in clause 11 of the Determination in relation to the wash-up amount calculation, quality standards and quality incentives and transactions for the year ended 31 March 2021, the first assessment period of the five-year regulatory period (the assessment period).

## COMPLIANCE STATEMENTS

### Wash-up amount calculation statement

- 7 This year we **complied with** the requirements to calculate the wash-up amount set out in clause 8.6 of the Determination for the assessment period. The wash-up amount for the assessment period is (\$2,179.6k) which will be applied as a revenue reduction when setting our prices for FY23.

### Quality standard statement

- 8 This year we **complied with** the quality standards set out in clause 9 of the Determination for the assessment period.
- 9 For planned interruptions, the compliance test is carried out at the end of the 5<sup>th</sup> assessment period based on accumulated results. The contribution from the current assessment period was:

#### 9.1 Duration of planned interruptions (SAIDI):

	<b>FY21</b>	<b>Accumulated</b> (1 of 5 years)	<b>Limit</b> (at end of 5 years)
Planned SAIDI	28.87	28.87	198.40

#### 9.2 Frequency of planned interruptions (SAIFI):

	<b>FY21</b>	<b>Accumulated</b> (1 of 5 years)	<b>Limit</b> (at end of 5 years)
Planned SAIFI	0.0933	0.0933	0.7481

- 10 For unplanned interruptions, a compliance test is carried out at each assessment period. Our reliability results for unplanned interruptions for the assessment period were:

#### 10.1 Duration of unplanned interruptions (SAIDI):

	<b>FY21</b>
Unplanned SAIDI result	29.70
Unplanned SAIDI limit	84.71
	Comply

#### 10.2 Frequency of unplanned interruptions (SAIFI):

	<b>FY21</b>
Unplanned SAIFI result	0.5026
Unplanned SAIFI limit	1.0336
	Comply

- 11 In terms of extreme events, Orion has complied with the standards as we have not had an extreme event.
- 12 The quality incentive adjustment has been determined as \$996,616 which will be applied as a revenue increase when setting our prices for FY23.
- 13 During the assessment period, we:
  - 13.1 have not been involved in an amalgamation or merger, and
  - 13.2 have not been involved in a major transaction or transfer.
- 14 This statement was prepared and certified by directors of Orion New Zealand Ltd on 23 August 2021.
- 15 Full details supporting the statements above are included in this compliance statement.

### WASH-UP AMOUNT CALCULATION SUPPORTING INFORMATION

- 16 Clause 8.6 and schedule 1.6 of the Determination require that the wash-up amount is calculated in accordance with the following formula for each assessment period:

$$AAR - AR - RV$$

where

AAR is the actual allowable revenue;

AR is the actual revenue; and

RV is the revenue foregone.

- 17 The calculation of each of these components is set out below.

#### Actual allowable revenue (AAR)

- 18 For the first assessment period in the DPP regulatory period, the actual allowable revenue (AAR) is calculated in accordance with the formula below as defined in schedule 1.6 (2)(a) of the Determination:

$$AAR = ANAR + APRC - \left( PTB \times (1 + 67^{\text{th}} \text{ percentile estimate of post-tax WACC}) \right)$$

where

ANAR is the actual net allowable revenue;

APRC is the actual pass-through costs and recoverable costs;

PTB is the pass-through balance amount; and

67<sup>th</sup> percentile estimate of post-tax WACC is given in clause 4.2 of the Determination as 4.23%.

- 19 **Actual net allowable revenue (ANAR)** set for Orion for the first assessment period is given in schedule 1.1 of the Determination which is \$158,498k.
- 20 **Actual pass-through costs and recoverable costs (APRC)** is defined in clause 4.2 of the Determination as the sum of all pass-through costs and recoverable costs that were incurred or, in the case of drawn down amounts from the innovation project allowance, approved by the Commission in the assessment period, excluding any recoverable costs that is a revenue wash-up draw down amount.

- 21 The following table sets out individual components that we have included in the calculation of actual pass-through and recoverable costs. It shows the amounts for the assessment period, the amounts we forecasted for the assessment period when setting prices, and actual amounts for the prior period:

<b>Pass-through and recoverable costs</b>	<b>IM reference<sup>1</sup></b>	<b>FY21 actual \$000</b>	<b>FY21 forecast \$000</b>	<b>FY20 actual \$000</b>
<b>Transpower charges</b>				
Connection	3.1.3(1)(b)	3,771.5	3,771.5	4,452.4
Interconnection	3.1.3(1)(b)	56,930.6	56,930.6	52,705.7
New investment	3.1.3(1)(c)	1,646.4	1,646.4	2,052.9
		<b>62,348.5</b>	<b>62,348.5</b>	<b>59,211.0</b>
<b>Avoided transmission charges</b>				
Addington/Middleton connection charges avoided (fifth assessment period following the assessment period in which the purchase occurred)	3.1.3(1)(e)	2,798.0	2,717.0	2,779.3
Hororata and Islington charges avoided (second assessment period following the assessment period in which the purchase occurred)	3.1.3(1)(e)	309.9	309.9	304.0
Bromley connection charges avoided	3.1.3(1)(e)	0.0	0.0	986.9
		<b>3,108.0</b>	<b>3,026.9</b>	<b>4,070.3</b>
<b>Incentives</b>				
IRIS incentive adjustment (see appendix D)	3.1.3(1)(a)	0.0	0.0	4,032.9
<b>Other recoverable costs</b>				
FENZ levy	3.1.3(1)(w)	110.5	100.0	NA
<b>Pass-through costs</b>				
Local authority rates on system fixed assets	3.1.2(2)(a)	4,321.3	4,213.0	4,111.7
Commerce Commission Levies	3.1.2(2)(b)(i)	356.7	505.0	515.9
Electricity Authority Levies	3.1.2(2)(b)(ii)	649.7	616.0	565.8
Utilities Disputes Levies	3.1.2(2)(b)(iii)	119.6	113.0	112.8
		<b>5,447.3</b>	<b>5,447.0</b>	<b>5,306.2</b>
<b>Total pass-through and recoverable costs</b>		<b>71,014.2</b>	<b>70,922.4</b>	<b>72,620.4</b>

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

22 **Variances from forecasts** that are shown in the table above 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.

23 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 FY21, and provides an explanation of each variance.

Cost category	Variance		Explanation
	\$000	%	
Avoided transmission charges	81.1	+2.7%	When setting prices the amounts were calculated using a prior method, and this was subsequently updated to the method required in the Determination
Local authority rates	108.3	+2.6%	Normal variation from the amount forecast
Commerce Commission levies	-148.3	-29.4%	The levies were lower than the prior year which we based our forecast on
FENZ Levy	10.5	+10.5%	Normal variation from the amount forecast
Electricity Authority levies	33.7	+5.5%	Normal variation from the amount forecast
Utilities Disputes levies	6.6	+5.8%	Normal variation from the amount forecast

24 **The pass-through balance amount (PTB)** is defined in clause 4.2 of the Determination as the amount calculated for the assessment period ending 31 March 2020.

25 In our annual compliance statement for the year ending 31 March 2020, we disclosed a pass-through balance for the period ending 31 March 2020 of -\$1,385.5k based on updated chargeable quantities and actual pass-through costs. This was subsequently corrected to -\$1,385.6k in clause 29 of our annual price-setting compliance statement for prices applying from 1 April 2021.

26 Therefore, the actual allowable revenue (AAR) for the assessment period is:

$$\begin{aligned}
 & \text{ANAR} + \text{APRC} - \left( \text{PTB} \times (1 + 67^{\text{th}} \text{ percentile estimate of post-tax WACC}) \right) \\
 & = \$158,498\text{k} + \$71,014.2\text{k} - (-\$1,385.6\text{k} \times (1 + 4.23\%)) \\
 & = \$230,956.5\text{k}
 \end{aligned}$$

### Actual revenue (AR)

- 27 The actual revenue (AR) is defined as actual revenue from prices plus other regulated income.
- 28 Actual revenue from prices is calculated as the sum of each price multiplied by each corresponding actual quantity. For the current assessment period, our actual revenue from prices was \$229,489.9k.
- 29 The schedule of prices that we set for the assessment period (as published on our website) is included in Appendix A, and the worksheet showing the calculation of actual revenue from prices is included in Appendix C.
- 30 Other regulated income for Orion for the assessment period was \$3,646.2k. The following table sets out individual components that we have included in the other regulated income.

Other regulated income	FY21 Actual \$000
Network usage	191.0
Network damage	1,031.1
Rent	2,198.9
Other sundry revenue	389.8
Gain (loss) on asset disposals	(164.6)
<b>Total</b>	<b>3,646.2</b>

- 31 Therefore, actual revenue (AR) for the assessment period was:  
 $\$229,489.9\text{k} + \$3,646.2\text{k} = \$233,136.1\text{k}$

### Revenue foregone (RV)

- 32 Revenue foregone (RV) is defined in clause 4.2 of the Determination as:
- 32.1 Nil, if the revenue reduction percentage is not greater than 20%;
- 32.2  $\text{ANAR} \times (\text{revenue reduction percentage} - 20\%)$ , if the revenue reduction percentage is greater than 20%.
- 33 The formula to calculate the revenue reduction percentage is:
- $$1 - (\text{actual revenue from prices} \div \text{forecast revenue from prices})$$
- 34 For the assessment period, our actual revenue from prices was \$229,489.9k as calculated in Appendix C. Forecast revenue from prices was \$227,988.4k, as disclosed in clause 16 of our annual price-setting compliance statement for prices applying from 1 April 2020, and shown in Appendix B.
- 35 Substituting these values into the revenue reduction percentage formula gives:
- $$1 - (\$229,489.9\text{k} \div \$227,988.4\text{k}) = - 0.7\%$$
- 36 Therefore, revenue foregone (RV) for Orion is nil for the assessment period, as the revenue reduction percentage is not greater than 20%.

### Wash-up amount calculation

- 37 Substituting the values calculated above for actual allowable revenue (AAR), actual revenue (AR) and revenue forgone (RV), the wash-up amount is:

$$\begin{aligned} & \text{AAR} - \text{AR} - \text{RV} \\ & = \$230,956.5\text{k} - \$233,136.1\text{k} - \$0 \\ & = (\$2,179.6\text{k}) \end{aligned}$$

### Summary of contributing factors

- 38 The wash-up amount equates to actual revenue being 0.9% higher than actual allowable revenue. At a high level, the main factors contributing to this variation are shown in the table below.

Factor	\$000	%
Actual chargeable quantities were greater than forecast	1,501.5	0.7%
Other regulated income higher than forecast <sup>2</sup>	594.2	0.3%
Pass-through and recoverable costs higher than forecast	(91.8)	(0.0%)
Other variation	175.7	0.1%
<b>Total</b>	<b>2,179.6</b>	<b>0.9%</b>

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<sup>2</sup> The Determination does not require us to include a forecast of other regulated income when calculating compliant prices. However, Orion elected to allow for other regulated income when setting prices, so the variation against this forecast contributes to the wash-up amount.

## **QUALITY STANDARDS AND QUALITY INCENTIVES SUPPORTING INFORMATION**

- 39 The Determination sets out quality standards that assess reliability results against a set of reliability limits set specifically for Orion.
- 40 To comply, Orion must demonstrate that it has met:
- 40.1 the planned reliability limits for planned interruptions for the DPP regulatory period;
  - 40.2 the annual unplanned reliability limits for unplanned interruptions for the assessment period; and
  - 40.3 the extreme event standard for the assessment period.
- 41 Two measures of reliability are assessed:
- 41.1 SAIDI, or system average interruption duration index, which reflects the average number of minutes a customer is off in a year, and
  - 41.2 SAIFI, or system average interruption frequency index, which reflects the average number of interruptions a customer has in a year.
- 42 The Determination also sets out quality incentives (rewards and penalties) based on reliability results.
- 43 The following section describes our policies and procedures for capturing and recording outage information, and this is followed by a summary of the calculation of our reliability results.

### **Recording reliability information**

- 44 Orion uses “PowerOn” as its network management system. PowerOn is the front-end package that presents Scada data to our network controllers in a sensible format. Information comes into PowerOn via SCADA or our Call Taker application, that logs customer calls relating to disruptions in electricity supply.
- 45 For planned outages and network faults, our network controllers follow sequential operating orders to carry out switching and configuration changes on the network to bypass affected assets and to facilitate planned or remedial work. At each point during these operating orders PowerOn shows and records the number of connections affected, together with switching points and switching times. Switching is either carried out remotely from the control room via SCADA or by our operators and contractors in the field. Switching information from the field comes into PowerOn via a mobile app (called PEEK).
- 46 Power is often restored in stages, and PowerOn automatically determines how many customers are affected by each stage and records details separately for each restoration stage. Where successive interruptions occur (including where a group of customers may be turned off to allow another area to be restored) the outage times are recorded separately for each group affected. Successive interruptions are recorded against the same incident when they occur during the restoration period, or are recorded as a separate incident when they occur after the initial incident has been fully restored. Customers who form part of a planned interruption but were not notified are separated out under a different incident and are record as unplanned.

- 47 PowerOn consists of two major modules, these being the NMS (Network management System) and the OMS (Outage Management System). The NMS manages the work packages and actual operation of equipment (events, alarms, switching, trends, equipment status). The OMS reports the impact of outages (customers affected, duration, causes etc) and allows for SAIDI/SAIFI and web-based external reporting, as well as the creation of notification lists and management of planned outages.
- 48 The information stored in PowerOn's OMS is used to create an 'Outage statistics' report for unplanned outages and a 'Planned outage statistics' report for planned outages. The information in both reports is used for our end of year disclosure reporting.
- 49 For each outage the following details are recorded in the outage statistics report:
- 49.1 interruption type (planned or unplanned, originating on Orion's network or on Transpower's network);
  - 49.2 district substation affected;
  - 49.3 feeder affected;
  - 49.4 asset type affected;
  - 49.5 cause of interruption;
  - 49.6 time/date off for each loss of supply stage;
  - 49.7 time/date for each restoration stage;
  - 49.8 for planned outages, the notification window;
  - 49.9 number of consumers affected in each stage; and
  - 49.10 explanatory notes.
- 50 Interruptions not originating in our network are also captured in this report. An example of the report can be seen below:

Outage Statistics between 19-May-2020 and 20-May-2020												Run on 8-Apr-2021	
Excluding incidents affecting no customers												Outage Statistics for Date Range	
Date	Incident #	Job #	Type	Stages	Off	On	Mins Off	# Ints	Cust Mins	Planned	Description		
19-May-20	INCD-266986-B	F-23518-B	Orion Fault HV		19/05/20 20:24:36	20/05/20 00:28:34	244.0	168	33331		0 Duvauchelle ZS - PB15/82 , CB 121 - Pawsons Valley Rd MSU Unit 62		
				Stage No:	1	19/05/20 20:24:36	19/05/20 22:56:21	151.8	24	3642			
				Stage No:	2	19/05/20 20:24:36	19/05/20 23:23:27	178.9	50	8943			
				Stage No:	3	19/05/20 20:24:36	19/05/20 23:50:51	206.3	58	11963			
				Stage No:	4	19/05/20 20:24:36	20/05/20 00:28:34	244.0	36	8783			

Zone	Voltage	Substation	Feeder	Controller Comments	Tripped Device	Cause Group	Cause Type	Planned Reason	Cause Comments	Work Type	Failed Asset	Failure Mode
Duvauchelle	11KV	Duvauchelle - PB15/82	Unit 121			Wildlife	Possum		possum on pole in Starvation Gully Rd	11KV OH Emergency Maint	HV Line	Other (detail in comments)
					Duvauchelle ZS - PB15/82 , CB 121 - Pawsons Valley Rd MSU Unit 62							
					Duvauchelle ZS - PB15/82 , CB 121 - Pawsons Valley Rd MSU Unit 62							
					Duvauchelle ZS - PB15/82 , CB 121 - Pawsons Valley Rd MSU Unit 62							
					Duvauchelle ZS - PB15/82 , CB 121 - Pawsons Valley Rd MSU Unit 62							

- 51 The planned outage statistics report shows a similar level of detail as the outage statistics report but has additional fields to show that we have carried out correct requirements to receive the planned outage incentive. For example:

**Planned Outage Statistics between 1-Mar-2021 and 31-Mar-2021** Run on 27-May-2021  
Planned Outage Statistics for Date Range

Date	Incident No	Job No	Type	Stages	Opt In	Notification Date	Notification Duration	Alt Day	Alt Date Notified	Cancelled >24hrs	Cancelled <24hrs	Notified Of Cancellation	Notified Off
01-Mar-21		2	2										
	INCD-266825-B	J-59636-B	Orion Planned HV										
				Stage No: 1	True	12/02/21	10	False		False	False		01/03/21 09:00:00
	INCD-286933-B	J-59653-B	Orion Planned HV										
				Stage No: 1	True	15/02/21	9	False		False	False		01/03/21 09:00:00

Notified On	Alt Notified Off	Alt Notified On	Actual Off	Actual On	Mins Within Window	Mins Outside Window	Mins Within Alt Window	Mins Outside Alt Window	Alt Notified Mins	Cancelled Mins	Additional Mins (2 hour rule)	# Ints	# Notified	SADIn Raw	SADIn Raw Half	
			01/03/21 09:02:16	01/03/21 15:01:16								0	1	1	359	179
01/03/21 16:30:00	03/03/21 09:00:00	03/03/21 16:30:00	01/03/21 09:02:16	01/03/21 15:01:16	359	0	0	0	0	0		1	1	359	179	
			01/03/21 09:23:00	01/03/21 11:27:00							430	5	5	1,050	525	
01/03/21 14:30:00	02/03/21 09:00:00	02/03/21 14:30:00	01/03/21 09:23:00	01/03/21 11:27:00	124	0	0	0	0	0	430	5	5	1,050	525	

SADib	Pre Deselected Cust Mins	Cust Mins	Description	Tripped Device	Cause Group	Failure Comments	Report #
		1,229					
0	359	179	Shands Rd Tx - C13/795, Transformer Unit T1 - Shands Rd - C13/795				FREP-96344-B
0	359	179		Shands Rd No.208 Kiosk - C13/868 , MSU 52 - O/H Line Shands Rd			
0	1,050	1,050	Okuti Valley Rd - AK2/40, Transformer Unit T1 - Okuti Valley Rd - AK2/40				FREP-96380-B
0	1,050	1,050		Okuti Valley Rd - AK2/9, HV Fuses			

- 52 The results in the outage statistics reports 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 checked by the control centre manager.

- 53 Planned and unplanned outages are reported on our website providing a live display of outages together with a map showing their location, for example:

Last updated: Friday, 22nd May 2020 7:15 am

Street search, enter street name

⚡ Coalgate, Sheffield	28
🔧 Hornby, Weedons	2
🔧 Wainoni	1
🔧 Burnside	15
⚡ Aranui, Wainoni	0
🔧 Arthurs Pass	49
⚡ <b>Barrys Bay, Duvauchelle, Holmes Bay, Kukupa, Little Pigeon Bay, Pigeon Bay</b>	<b>168</b>

**Wildlife contact with Orion asset**  
**Incident Reference**  
 INCD-266986-B  
**Power off**  
 Tuesday, 19th May 2020 8:24 pm  
**Power restored**  
 Wednesday, 20th May 2020 12:28 am  
**Duration**  
 04:03  
**Streets affected**  
 Double Bay Rd, Frasers Rd, Holmes Bay Rd, Holmes Bay Valley Rd, Innes Rd, Kukupa Pl, Little Pigeon Bay Rd, Middle Rd, Pawsons Valley Rd, Pettigrews Rd, Pigeon Bay Rd, Port Levy-Pigeon Bay Rd, Shadbolts Rd, Starvation Gully Rd, Summit Rd, Wharf Rd, Wilsons Rd  
**Customers restored**  
 168

Restored	Duration	Customers	Streets restored
19 May 22:57 pm	02:33	24	Pawsons Valley Rd, Pigeon Bay Rd, Summit Rd
19 May 23:24 pm	03:00	50	Kukupa Pl, Middle Rd, Pettigrews Rd, Pigeon Bay Rd, Shadbolts Rd
19 May 23:51 pm	03:27	58	Double Bay Rd, Frasers Rd, Holmes Bay Rd, Holmes Bay Valley Rd, Innes Rd, Little Pigeon Bay Rd, Pettigrews Rd, Port Levy-Pigeon Bay Rd, Shadbolts Rd, Wilsons Rd
20 May 00:33 am	04:09	36	Pigeon Bay Rd, Starvation Gully Rd, Wharf Rd

[View on map](#)

- 54 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.

### Planned interruptions quality standard

- 55 For planned interruptions, the reliability standard is assessed at the end of the 5<sup>th</sup> assessment period based on accumulated results. The planned accumulated SAIDI and SAIFI limits set for Orion for the DPP regulatory period are set out in Schedule 3.1 (1) in the Determination as:

Planned accumulated SAIDI limit for the DPP regulatory period	Planned accumulated SAIFI limit for the DPP regulatory period
198.40	0.7481

### Planned SAIDI assessed value

- 56 The assessment of planned SAIDI (called Class B interruptions) includes an incentive that de-weights the assessment of planned interruptions where we have met a set of notification obligations, referred to as “notified interruptions” (SAIDI<sub>N</sub>).
- 57 SAIDI<sub>N</sub> provides the opportunity to de-weight planned outages by halving the minutes where we have met notification and information requirements. The de-weighting does not apply to any proportion of an outage that falls outside the notified window. There is also a penalty applied when outages are more than two hours shorter than the notified window, and when the outages are cancelled with less than 24 hours’ notice.
- 58 The overall planned SAIDI assessed values (SAIDI<sub>planned, assessed</sub>) is the sum of results for these notified interruptions together with the results for other planned interruptions. This is set out in the Determination in schedule 3.1 (2) as:

$$\text{SAIDI}_{\text{planned, assessed}} = \text{SAIDI}_{\text{B}} + \frac{\text{SAIDI}_{\text{N}}}{2}$$

Where

SAIDI<sub>B</sub> is the sum of:

- the SAIDI value for any class B interruptions that are not Class B notified interruptions; and
- the SAIDI value attributable to the period of minutes that falls outside the specified notified interruption window or alternate date, for any Class B notified interruptions that have occurred partially or wholly outside their notified interruption window or alternate day.

SAIDI<sub>N</sub> is the sum of:

the SAIDI values attributable to any minutes that fall within the specified notified interruption window or alternate day of any Class B notified interruptions, where the SAIDI value is the greater of that calculated based on:

- the duration of the minutes accumulated for each ICP; and
- the period of the notified interruption window minus two hours;

the intended SAIDI values of any intended interruptions cancelled without 24 hours’ notice, where the intended SAIDI value is the greater of that calculated based on:

- the duration of the minutes accumulated for each ICP which will be nil; and

- the period of the notified interruption window minus two hours; and the intended SAIDI values of any intended interruption cancelled with at least 24 hours' notice, where the intended SAIDI value for each of those is nil.

59 In situations where we have not met the notification or information requirements for a notified outage, we have still included the outage within the calculation of SAIDI<sub>N</sub>, but we have not applied the de-weighting.

60 The following table sets out individual components that we have included in the calculation of SAIDI<sub>planned, assessed</sub> for the current assessment period:

**Duration of Interruptions**

	<b>Contributing Outages</b>	<b>Minutes</b>
<b>Minutes lost attributed to SAIDI<sub>B</sub></b>		
(a) Class B interruptions that are not notified interruptions	265	2,504,180
(b) The period of minutes that falls outside the specified notified window or alternate day for any Class B notified interruptions	117	313,577
		<b>2,817,757</b>
<b>Minutes lost attributed to SAIDI<sub>N</sub></b>		
(a) Class B notified interruptions fall within the specified notified window or alternate day	348	3,141,813
Short duration interruptions (the extend to which the interruption is more than two hours shorter than notified)	87	95,937
(b) Intended interruptions cancelled without notice	44	85,950
(c) Contribution from intended interruption cancelled with notice	14	Nil
		<b>3,323,700</b>
<b>Average number of customers (ICPs)</b>		209,584

**SAIDI values**

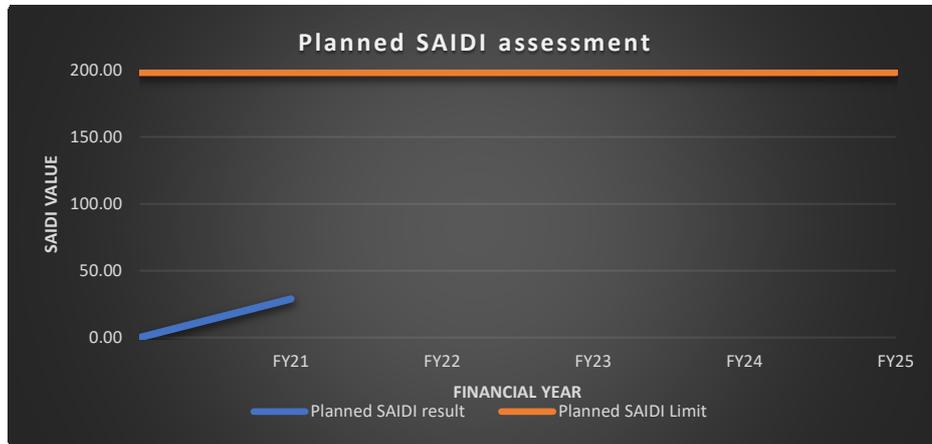
<b>SAIDI<sub>B</sub></b>	13.44
<b>SAIDI<sub>N</sub>/2</b>	15.42

61 Substituting the above SAIDI<sub>B</sub> and SAIDI<sub>N</sub> values into the formula for calculating SAIDI<sub>planned, assessed</sub> gives:

$$\begin{aligned}
 \text{SAIDI}_{\text{planned, assessed}} &= \text{SAIDI}_B + \frac{\text{SAIDI}_N}{2} \\
 &= 13.44 + 15.42 \\
 &= 28.87
 \end{aligned}$$

62 Therefore, the contribution from the current assessment period and accumulated results for the regulatory period is:

	<b>FY21</b>	<b>Accumulated (1 of 5 years)</b>	<b>Limit (at end of 5 years)</b>
Planned SAIDI	28.87	28.87	198.40



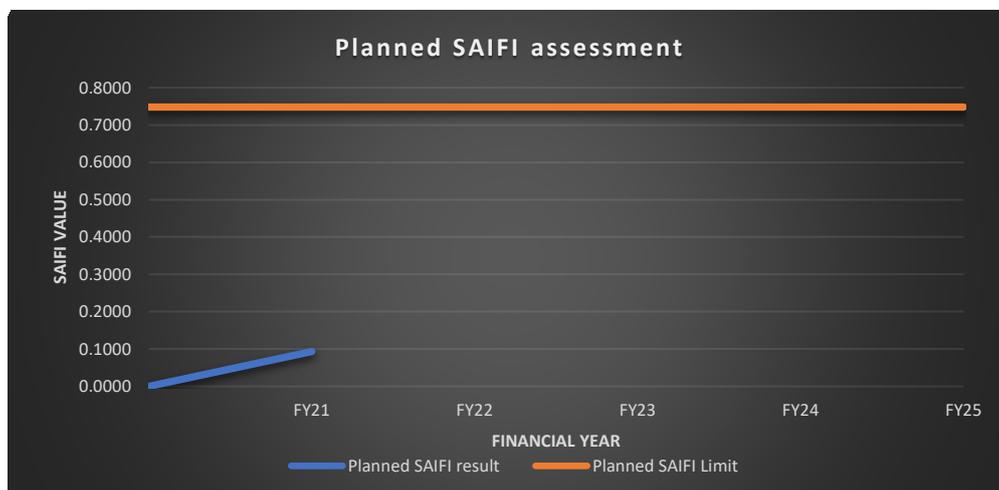
**Planned SAIFI assessed value**

63 The assessment of planned SAIFI does not include an incentive adjustment. The planned SAIFI assessed value (SAIFI<sub>planned, assessed</sub>) for planned interruptions for each assessment period is simply calculated as the sum of the SAIFI values for Class B interruptions, as follows:

<b>Frequency of Interruption</b>	<b>FY21</b>
Class B interruptions	19,559
Average number of customers	209,584
<b>SAIFI<sub>planned, assessed</sub></b>	<b>0.0933</b>

64 The contribution from the current assessment period and accumulated result for the regulatory period are:

	<b>FY21</b>	<b>Accumulated (1 of 5 years)</b>	<b>Limit (at end of 5 years)</b>
Planned SAIFI	0.0933	0.0933	0.7481



### Unplanned interruptions quality standard

- 65 For unplanned interruptions (called Class C interruptions), the reliability standard is assessed annually for SAIDI and SAIFI. The unplanned SAIDI and SAIFI limits, and SAIDI and SAIFI unplanned boundary values for Orion for each assessment period are set out in schedule 3.2 of the Determination as:

Unplanned SAIDI limit	Unplanned SAIFI limit	SAIDI unplanned boundary value	SAIFI unplanned boundary value
84.71	1.0336	7.60	0.0668

### Unplanned SAIDI and SAIFI assessed values

- 66 The total duration and number of outages for Class C interruptions is accumulated to calculate the unplanned SAIDI and SAIFI indices. The results prior to normalising the data for major events were:

- 66.1 Duration of interruptions:

	FY21
Unplanned minutes lost (Class C)	6,224,365
Average number of customers	209,584
Unplanned SAIDI	29.70

- 66.2 Frequency of interruptions:

	FY21
Unplanned outages (Class C)	105,327
Average number of customers	209,584
Unplanned SAIFI	0.5026

### Normalising the reliability results

- 67 The Determination provides for the normalisation of reliability results to mitigate the impact of major events and provide a view of underlying network reliability.
- 68 The assessment dataset for unplanned interruptions is normalised by adjusting the results for major events. SAIDI and SAIFI major events are triggered independently, and their definitions are given in clause 4.2 of the Determination. For any 24-hour period that starts on the hour or half past the hour:
- 68.1 a SAIDI major event is triggered when the sum of SAIDI values over that 24-hour period for unplanned interruptions exceeds the SAIDI unplanned boundary value; and
- 68.2 a SAIFI major event is triggered when the sum of SAIFI values over that 24-hour period for unplanned interruptions exceeds the SAIFI unplanned boundary value.
- 69 When a SAIDI or SAIFI major event is identified, the raw SAIDI or SAIFI value for each half-hour period within the major event is capped at 1/48<sup>th</sup> of their respective unplanned boundary value.
- 70 In the current assessment period, we did not identify any SAIDI or SAIFI major events that met the definitions of major events given in the Determination. Therefore, there were no normalisation adjustments to apply to the calculated SAIDI and SAIFI results for unplanned Class C interruptions.

71 Comparing the assessed values with their respective limits gives the following results:

71.1 Duration of interruptions:

	<b>FY21</b>
Unplanned SAIDI	29.70
<i>less</i> normalisation adjustments for major events	0.00
<b>SAIDI</b> <small>unplanned, assessed</small>	<b>29.70</b>
Annual unplanned SAIDI Limit	84.71
Annual reliability result	Comply

71.2 Frequency of interruptions:

	<b>FY21</b>
Unplanned SAIFI	0.5026
<i>less</i> normalisation adjustments for major events	0.0000
<b>SAIFI</b> <small>unplanned, assessed</small>	<b>0.5024</b>
Annual unplanned SAIFI Limit	1.0336
Annual reliability result	Comply

72 This year we have met our compliance obligation for the unplanned interruption reliability assessment with both the unplanned SAIDI and SAIFI assessed values below their respective annual limits.

**Extreme event quality standard**

73 The extreme event standard limits for unplanned interruptions (excluding any unplanned interruption that is the result of major external factors) for the DPP regulatory period are set out in schedule 3.3 of the Determination. They are:

73.1 a SAIDI value of 120 minutes, whereby the extreme event standard limit will be exceeded if, during any period of 24 hours (starting on the hour or half past the hour), the SAIDI value of all unplanned interruptions that start during that 24-hour period, in aggregate, is above 120 minutes; and

73.2 a total of six million customer interruption minutes, whereby the extreme event standard limit will be exceeded if, during any period of 24 hours (starting on the hour or half past the hour), the total duration of customer interruption minutes resulting from all unplanned interruptions that start during that 24-hour period, in aggregate, is more than six million customer interruption minutes.

74 This year we have complied with the extreme event standards as we have not had any 24-hour period that exceeded the above limits for unplanned interruptions.

### Quality incentive adjustment

- 75 The Determination sets out a quality incentive adjustment based on reliability results and the method for calculating the adjustment is given in Schedule 4 of the Determination.
- 76 Calculation of this revenue-linked quality incentive is applied to unplanned and planned SAIDI and is capped at 2% of the actual net allowable revenue. There is no SAIFI quality incentive.
- 77 The first step is to calculate the lessor of:

$$77.1 \quad \left( \text{SAIDI}_{\text{unplanned, target}} - \text{SAIDI}_{\text{unplanned, assessed}} \right) \times \text{IR} + \left( \text{SAIDI}_{\text{planned, target}} - \text{SAIDI}_{\text{planned, assessed}} \right) \times 0.5 \times \text{IR} ; \text{ and}$$

$$77.2 \quad 0.02 \times \text{ANAR}$$

where

$\text{SAIDI}_{\text{unplanned, target}}$  is the SAIDI unplanned interruption target set for Orion in schedule 4 of the Determination;

$\text{SAIDI}_{\text{unplanned, assessed}}$  is the SAIDI unplanned assessed value calculated in accordance to schedule 3.2 of the Determination, and when it is greater than the SAIDI unplanned interruption cap set for Orion in schedule 4 of the Determination, it equals to the SAIDI unplanned interruption cap;

$\text{SAIDI}_{\text{planned, target}}$  is the SAIDI planned interruption target set for Orion in schedule 4 of the Determination;

$\text{SAIDI}_{\text{planned, assessed}}$  is the SAIDI planned assessed value calculated in accordance to schedule 3.1 of the Determination, and when it is greater than the SAIDI planned interruption cap set for Orion in schedule 4 of the Determination, it equals to the SAIDI planned interruption cap;

IR is the incentive rate set for Orion in schedule 4 of the Determination; and

ANAR is actual net allowable revenue set for Orion for the assessment period in schedule 1.1 of the Determination, which is \$158,498k.

- 78 The second step is to adjust the calculated amount from above for the time-value for money by multiplying with the following formula:

$$(1 + 67\text{th percentile estimate of post-tax WACC})^2$$

where

67th percentile estimate of post-tax WACC is 4.23% as defined in clause 4.2 of the Determination.

- 79 The following table outlines the unplanned and planned SAIDI collars, targets and caps and the incentive rate set for Orion in schedule 4 of the Determination:

	Value
SAIDI unplanned interruption collar (SAIDI <sub>unplanned, collar</sub> )	0
SAIDI unplanned interruption target (SAIDI <sub>unplanned, target</sub> )	66.47
SAIDI unplanned interruption cap (SAIDI <sub>unplanned, cap</sub> )	84.71
SAIDI planned interruption collar (SAIDI <sub>planned, collar</sub> )	0
SAIDI planned interruption target (SAIDI <sub>planned, target</sub> )	13.23
SAIDI planned interruption cap (SAIDI <sub>planned, cap</sub> )	39.68
Incentive Rate (IR)	\$31,686

- 80 The SAIDI unplanned and planned assessed value calculated in accordance to schedule 3.2 and schedule 3.1 of the Determination are:

	Calculated	Capped
SAIDI unplanned assessed value (SAIDI <sub>unplanned, assessed</sub> )	29.70	29.70
SAIDI planned assessed value (SAIDI <sub>planned, assessed</sub> )	28.87	28.87

- 81 Substituting these values into the formulas gives:

$$\begin{aligned}
 81.1 & \quad (\text{SAIDI}_{\text{unplanned, target}} - \text{SAIDI}_{\text{unplanned, assessed}}) \times \text{IR} + (\text{SAIDI}_{\text{planned, target}} - \\
 & \quad \text{SAIDI}_{\text{planned, assessed}}) \times 0.5 \times \text{IR} \\
 & = (66.47 - 29.70) \times \$31,686 + (13.23 - 28.87) \times 0.5 \times \$31,686 \\
 & = \$917,365
 \end{aligned}$$

and

$$\begin{aligned}
 81.2 & \quad 0.02 \times \text{ANAR} \\
 & = 0.02 \times \$158,498\text{k} \\
 & = \$3,170.0\text{k}
 \end{aligned}$$

- 81.3 The lessor of the above calculated amounts is \$917,365, therefore the quality incentive adjustment is:

$$\begin{aligned}
 & \$917,365 \times (1 + 4.23\%)^2 \\
 & = \$996,616
 \end{aligned}$$

## TRANSACTIONS

- 82 Clause 10.1 of the Determination requires us to notify the Commission of any amalgamation, merger, major transaction or transfer.
- 83 Clause 10.2 of the Determination requires us to adjust the forecast net allowable revenue and wash-up amount, SAIDI and SAIFI limits, boundary values, caps and targets, and incentive rate following a transfer of consumers.
- 84 Orion has not been involved in any amalgamation, merger, major transaction or transfer during the assessment period. Therefore, there were no adjustments made to the measures mentioned above.

## APPENDIX A – DELIVERY AND EXPORT PRICE SCHEDULES

### Electricity delivery price schedule for Orion NZ Ltd

(applicable from 1 April 2020 to 31 March 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. The separate transmission and distribution components of the total delivery price are shown in order to meet information disclosure requirements.

All prices exclude GST	Distribution	Transmission	Delivery Price (total)	Unit of measure
<b>Streetlighting connections</b>				
	<i>approx 50,332 connections</i>			
Fixed charge	0.1039	(0.0042)	0.0997	\$/con/day
Peak charge (peak period demand)	0.2580	0.1540	0.4120	\$/kW/day
Volume charge				
Weekdays (Mon to Fri, 7am to 9pm)	0.05119	0.01588	0.06707	\$/kWh
Nights & weekends (Sat & Sun)	0.01456	0.00342	0.01798	\$/kWh
<b>General connections</b>				
	<i>approx 204,239 connections</i>			
Fixed charge	0.1500	-	0.1500	\$/con/day
Peak charge (peak period demand)	0.2580	0.1540	0.4120	\$/kW/day
Volume charge				
Weekdays (Mon to Fri, 7am to 9pm)	0.05119	0.01588	0.06707	\$/kWh
Nights & weekends (Sat & Sun)	0.01456	0.00342	0.01798	\$/kWh
Low power factor charge	0.1500	0.0500	0.2000	\$/kVAr/day
<b>Irrigation connections</b>				
	<i>approx 1,038 connections</i>			
Capacity charge	0.3846	0.0644	0.4490	\$/kW/day*
Volume charge				
Weekdays (Mon to Fri, 7am to 9pm)	0.05119	0.01588	0.06707	\$/kWh
Nights & weekends (Sat & Sun)	0.01456	0.00342	0.01798	\$/kWh
Rebates				
Power factor correction rebate	(0.1658)	-	(0.1658)	\$/kVAr/day*
Interruptibility rebate	(0.0415)	-	(0.0415)	\$/kW/day*
* applied from 1 October to 31 March only				
<b>Major customer and embedded network connections</b>				
	<i>approx 495 connections</i>			
Fixed charge	10.0000	-	10.0000	\$/con/day
Fixed charge (additional connections)	5.0000	-	5.0000	\$/con/day
Extra switches	3.2700	-	3.2700	\$/switch/day
11kV Metering equipment	4.2600	-	4.2600	\$/con/day
11kV Underground cabling	3.3400	-	3.3400	\$/km/day
11kV Overhead lines	2.1000	-	2.1000	\$/km/day
Transformer capacity	0.0119	-	0.0119	\$/kVA/day
Peak charge (control period demand)	0.2382	0.1573	0.3955	\$/kVA/day
Nominated maximum demand	0.0964	0.0080	0.1044	\$/kVA/day
Metered maximum demand	-	0.0762	0.0762	\$/kVA/day
<b>Large capacity connections</b>				
	<i>15 connections</i>			
Individually assessed prices advised and charged directly to the customers				
<b>Miscellaneous</b>				
Monthly invoice and contract charge to retailers and directly contracted customers	30.00	-	30.00	\$/invoice
Failure to pay notice	50.00	-	50.00	\$/notice
Default and termination notice	100.00	-	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.

## Export credit schedule for Orion NZ Ltd

(applicable from 1 April 2020 to 31 March 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:

<i>(excluding GST)</i>				
Generator rated output	Period applied	Credit prices	Price Component Code <sup>3</sup>	Unit of measure
0 - 30kW generation <sup>2</sup>				
Anytime credits (without PV), or	Anytime	0.00300	EXPA	\$/kWh
Anytime credits (with PV)	(24 hours, 7 days)	0.00010	EXPAPV	\$/kWh
0 - 30kW generation <sup>2</sup>				
Peak period credits (with or without PV)	Chargeable peak period	0.21070	EXPPP	\$/kWh
30 - 750kW Control period credits <sup>4</sup>				
- real power, plus	Chargeable control period	0.0721	EXPCP1	\$/kW/day
- reactive power <sup>5</sup>		0.0237	EXPCP2	\$/kVAr/day
above 750kW	<i>Individually assessed prices provided on application</i>			

### 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 – FORECAST REVENUE FROM PRICES WORKSHEET

	FY2021 Delivery Prices	FY2021 Forecast Quantities	Days applicable	Price x Quantity
<b>Streetlighting, general and irrigation connections</b>				(\$000)
Streetlighting fixed charge	0.0997 \$/con/day	50,332.0 cons	365 days	1,831.6
General fixed charge	0.1500 \$/con/day	204,239.0 cons	365 days	11,182.1
Streetlighting and general connections Peak charge (peak period demand)	0.4120 \$/kW/day	470,054 kW	365 days	70,686.7
Streetlighting, general and irrigation connections volume charge Weekdays (Mon to Fri, 7am - 9pm)	0.06707 \$/kWh	1,127,892 MWh		75,647.7
Nights & weekends (Sat & Sun)	0.01798 \$/kWh	1,287,995 MWh		23,158.2
General connections Low power factor charge	0.2000 \$/kVAr/day	0 kVAr	365 days	-
Irrigation connections Capacity charge	0.4490 \$/kW/day	76,807 kW	182 days	6,276.5
Power factor correction rebate	(0.1658) \$/kVAr/day	25,587 kVAr	182 days	(772.1)
Interruptibility rebate	(0.0415) \$/kW/day	50,998 kW	182 days	(385.2)
<b>Major customer connections and embedded networks</b>				
Fixed charge	10.0000 \$/con/day	402.0 cons	365 days	1,467.3
Fixed charge (additional connections)	5.0000 \$/con/day	93.0 cons	365 days	169.7
Extra switches	3.2700 \$/switch/day	104.0 switches	365 days	124.1
11k Metering equipment	4.2600 \$/con/day	41.9 cons	365 days	65.2
11kV Underground cabling	3.3400 \$/km/day	7.3 km	365 days	8.9
11kV Overhead lines	2.1000 \$/km/day	3.0 km	365 days	2.3
Transformer capacity	0.0119 \$/kVA/day	333,432.0 kVA	365 days	1,448.3
Peak charge (control period demand)	0.3955 \$/kVA/day	111,736.0 kVA	365 days	16,129.9
Nominated maximum demand	0.1044 \$/kVA/day	264,287.0 kVA	365 days	10,070.9
Metered maximum demand	0.0762 \$/kVA/day	223,488.0 kVA	365 days	6,215.9
<b>Large capacity connections</b>				
Distribution services				
Asset charge (dedicated assets)	11.350 \$/kVA/year	19,000.0 kVA	365 days	215.7
Asset charge (dedicated assets)	14.220 \$/kVA/year	16,000.0 kVA	365 days	227.5
Asset charge (shared assets)	28.260 \$/kVA/year	18,290.0 kVA	365 days	516.9
Asset charge (shared assets)	25.290 \$/kVA/year	13,430.0 kVA	365 days	339.6
Operations, maintenance & administration (dedicated assets)	10.300 \$/kVA/year	19,000.0 kVA	365 days	195.7
Operations, maintenance & administration (dedicated assets)	6.060 \$/kVA/year	16,000.0 kVA	365 days	97.0
Operations, maintenance & administration (shared assets)	23.630 \$/kVA/year	18,290.0 kVA	365 days	432.2
Operations, maintenance & administration (shared assets)	10.780 \$/kVA/year	13,430.0 kVA	365 days	144.8
Transmission services				
Connection charge	4.910 \$/kVA/year	14,632.0 kVA	365 days	71.8
Connection charge	1.450 \$/kVA/year	11,265.0 kVA	365 days	16.3
Customer investment contract charge	45.100 \$/kVA/year	16,000.0 kVA	365 days	721.6
Interconnection charge (summer)	48.200 \$/kVA/year	14,632.0 kVA	365 days	705.3
Interconnection charge (summer)	47.030 \$/kVA/year	11,265.0 kVA	365 days	529.8
Interconnection charge (winter)	56.140 \$/kVA/year	6,344.0 kVA	365 days	356.2
Interconnection charge (winter)	54.760 \$/kVA/year	1,679.0 kVA	365 days	91.9
<b>Export credits</b>				
Real power component	(0.0721) \$/kW/day	538.7 kW	365 days	(14.2)
Reactive power component	(0.0237) \$/kVAr/day	153.1 kVAr	365 days	(1.3)
<b>Miscellaneous</b>				
Monthly invoice charge	30.00 \$/invoice	432.0 invoices		13.0
Failure to pay notice	50.00 \$/notice	10.0 notices		0.5
Default and termination notice	100.00 \$/notice	2.0 notices		0.2
<b>Forecast Revenue from Prices FY2021</b>				<b>227,988.4</b>

## APPENDIX C – ACTUAL REVENUE FROM PRICES WORKSHEET

	FY2021 Delivery prices	FY2021 Actual quantities	Days applicable	Price x quantity (\$000)
<b>Streetlighting, general and irrigation connections</b>				
Streetlighting fixed charge	0.0997 \$/con/day	50,765 cons	365 days	1,847.4
General fixed charge	0.1500 \$/con/day	205,294 cons	365 days	11,239.8
Streetlighting and general connections Peak charge (peak period demand)	0.4120 \$/kW/day	471,596 kW	365 days	70,918.6
Streetlighting, general and irrigation connections volume charge				
Weekdays (Mon to Fri, 7am - 9pm)	0.06707 \$/kWh	1,146,788 MWh		76,915.1
Nights & weekends (Sat & Sun)	0.01798 \$/kWh	1,296,131 MWh		23,304.4
General connections				
Low power factor charge	0.2000 \$/kVAr/day	0 kVAr	365 days	-
Irrigation connections				
Capacity charge	0.4490 \$/kW/day	77,306 kW	182 days	6,317.3
Power factor correction rebate	(0.1658) \$/kVAr/day	23,783 kVAr	182 days	(717.7)
Interruptibility rebate	(0.0415) \$/kW/day	49,498 kW	182 days	(373.9)
<b>Major customer connections and embedded networks</b>				
Fixed charge	10.0000 \$/con/day	399.6 cons	365 days	1,458.4
Fixed charge (additional connections)	5.0000 \$/con/day	93.4 cons	365 days	170.5
Extra switches	3.2700 \$/switch/day	107.3 switches	365 days	128.1
11k Metering equipment	4.2600 \$/con/day	41.0 cons	365 days	63.8
11kV Underground cabling	3.3400 \$/km/day	7.3 km	365 days	8.9
11kV Overhead lines	2.1000 \$/km/day	3.0 km	365 days	2.3
Transformer capacity	0.0119 \$/kVA/day	334,032.6 kVA	365 days	1,450.9
Peak charge (control period demand)	0.3955 \$/kVA/day	112,342.7 kVA	365 days	16,217.5
Nominated maximum demand	0.1044 \$/kVA/day	262,494.1 kVA	365 days	10,002.6
Metered maximum demand	0.0762 \$/kVA/day	226,792.1 kVA	365 days	6,307.8
<b>Large capacity connections</b>				
Distribution services				
Asset charge (dedicated assets)	11.350 \$/kVA/year	19,000.0 kVA	365 days	215.7
Asset charge (dedicated assets)	14.220 \$/kVA/year	16,000.0 kVA	365 days	227.5
Asset charge (shared assets)	28.260 \$/kVA/year	18,290.0 kVA	365 days	516.9
Asset charge (shared assets)	25.290 \$/kVA/year	13,430.0 kVA	365 days	339.6
Operations, maintenance & administration (dedicated assets)	10.300 \$/kVA/year	19,000.0 kVA	365 days	195.7
Operations, maintenance & administration (dedicated assets)	6.060 \$/kVA/year	16,000.0 kVA	365 days	97.0
Operations, maintenance & administration (shared assets)	23.630 \$/kVA/year	18,290.0 kVA	365 days	432.2
Operations, maintenance & administration (shared assets)	10.780 \$/kVA/year	13,430.0 kVA	365 days	144.8
Transmission services				
Connection charge	4.910 \$/kVA/year	8,642.1 kVA	365 days	42.4
Connection charge	1.450 \$/kVA/year	10,999.6 kVA	365 days	15.9
Customer investment contract charge	45.100 \$/kVA/year	16,000.0 kVA	365 days	721.6
Interconnection charge (summer)	48.200 \$/kVA/year	8,642.1 kVA	365 days	416.5
Interconnection charge (summer)	47.030 \$/kVA/year	10,999.6 kVA	365 days	517.3
Interconnection charge (winter)	56.140 \$/kVA/year	4,390.0 kVA	365 days	246.5
Interconnection charge (winter)	54.760 \$/kVA/year	1,781.6 kVA	365 days	97.6
<b>Export credits</b>				
Real power component	(0.0721) \$/kW/day	449.5 kW	365 days	(11.8)
Reactive power component	(0.0237) \$/kVAr/day	117.5 kVAr	365 days	(1.0)
<b>Miscellaneous</b>				
Monthly invoice charge	30.00 \$/invoice	438 invoices		13.1
Failure to pay notice	50.00 \$/notice	9 invoices		0.5
Default and termination notice	100.00 \$/notice	2 invoices		0.2
<b>Actual Revenue from Prices</b> FY2021				<b>229,489.9</b>

**APPENDIX D – CALCULATION OF INCREMENTAL ROLLING INCENTIVE**

**Orion default price path FY2021  
Opex IRIS assessment**

Financial year Regulatory year Disclosure year ending Assessment Period	CPP regulatory period						6 year period following CPP					
	FY15 1	FY16 2	FY17 3	FY18 4	FY19 5	FY20 1	FY21 1	FY22 2	FY23 3	FY24 4	FY25 5	
	31-Mar-15 1st	31-Mar-16 2nd	31-Mar-17 3rd	31-Mar-18 4th	31-Mar-19 5th	31-Mar-20 1st	31-Mar-21 1st	31-Mar-22 2nd	31-Mar-23 3rd	31-Mar-24 4th	31-Mar-25 5th	
CPIQ1	975	979	1000	1011	1026	1052	1068	1086	1107	1131	1154	
CPIQ2	979	983	1000	1015	1032	1047	1074	1090	1112	1137	1159	
CPIQ3	982	986	1005	1024	1039	1054	1080	1098	1121	1143	1166	
CPIQ4	977	990	1006	1025	1044	1059	1082	1102	1126	1149	1172	
Inflation rate		0.64%	1.85%	1.60%	1.62%	1.71%	2.20%	1.65%	2.05%	2.10%	2.00%	
Opex subject to IRIS												
Allowed opex (CPP Determination schedule 7)	\$000	54,908.5	58,104.3	57,926.1	57,997.4	58,854.0	NA					
Actual disclosed Opex		50,828.0	55,679.0	55,736.0	54,207.0	59,678.0						
Difference	\$000	4,080.5	2,425.3	2,190.1	3,790.4	(824.0)						
Incremental change	\$000	4,080.5	(1,655.3)	(235.2)	1,600.3	0.0						
Incremental adjustment term						(4,693.5)						
Incremental gains/(losses) carried forward												
Year	1 \$000	4,106.6	4,182.7	4,249.5	4,318.3	4,392.3						
	2 \$000		(1,685.9)	(1,712.8)	(1,740.6)	(1,770.4)	(1,809.5)					
	3 \$000			(238.9)	(242.8)	(246.9)	(252.4)	(256.6)				
	4 \$000				1,626.2	1,654.1	1,690.6	1,718.5	1,753.7			
	5 \$000					0.0	0.0	0.0	0.0	0.0		
	6 \$000						(4,797.0)	(4,876.2)	(4,976.2)	(5,080.6)	(5,182.2)	
<b>Net balance</b>						4,029.1	(5,168.3)	(3,414.3)	(3,222.5)	(5,080.6)	(5,182.2)	
<b>IRIS amount - Net balances treated as Recoverable cost</b>						4,029.1	0.0	0.0	0.0	0.0	0.0	

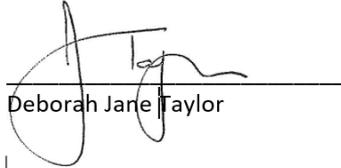
2% Forecast ->

RBNZ Forecast ->

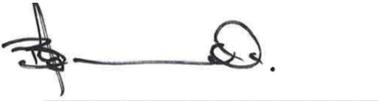


## DIRECTORS' CERTIFICATE FOR ANNUAL COMPLIANCE STATEMENT

We, Deborah Jane Taylor and Bruce Donald Gemmell, being directors of Orion New Zealand Ltd certify that, having made all reasonable enquiry, to the best of our knowledge and belief, the attached annual 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.



Deborah Jane Taylor



Bruce Donald Gemmell

23 August 2021

## Independent Assurance Report

### To the directors of Orion New Zealand Limited on the Annual Compliance Statement for the assessment period ended 31 March 2021 as required by the Electricity Distribution Services Default Price-Quality Path Determination 2020

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 undertake a reasonable assurance engagement, on his behalf, on whether the Annual Compliance Statement on pages 3 to 21 for the assessment period ended on 31 March 2021 has been prepared, in all material respects, in compliance with the Electricity Distribution Services Default Price-Quality Path Determination 2020 (the "Determination").

#### Opinion

In our opinion, in all material respects:

- as far as appears from our examination, the information used in the preparation of the Annual Compliance Statement has been properly extracted from the Company's accounting and other records, sourced from its financial and non-financial systems; and
- the Company has complied with clauses 11.5 and 11.6 of the Determination in preparing the Annual Compliance Statement for the assessment period ended 31 March 2021.

#### Basis for opinion

We conducted our engagement in accordance with the Standard on Assurance Engagements (SAE) 3100 (Revised) Assurance Engagements on Compliance, issued by the New Zealand Auditing and Assurance Standards Board. An engagement conducted in accordance with SAE (NZ) 3100 (Revised) requires that we also comply with the International Standard on Assurance Engagements (New Zealand) 3000 (Revised) Assurance Engagements Other Than Audits or Reviews of Historical Financial Information.

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

#### Directors' responsibilities

The directors of the Company are responsible:

- For the preparation of the Annual Compliance Statement under clause 11.4 and in accordance with the requirements in clauses 11.5 and 11.6 of the Determination.

- For the identification of risks that may threaten compliance with the clauses identified above and controls which will mitigate those risks and monitor ongoing compliance.

### **Auditor's responsibilities**

Our responsibilities in terms of clause 11.5(e) and schedule 8(1)(b)(vi) and 8(1)(c) of the Determination, are to express an opinion on whether:

- as far as appears from our examination, the information used in the preparation of the Annual Compliance Statement has been properly extracted from the Company's accounting and other records, sourced from its financial and non-financial systems; and
- the Annual Compliance Statement, for the assessment period ended 31 March 2021, has been prepared, in all material respects, in accordance with the requirements in clauses 11.5 and 11.6 of the Determination.

To meet these responsibilities, we planned and performed procedures in accordance with SAE 3100 (Revised), to obtain reasonable assurance about whether the Company has complied, in all material respects, with clauses 11.5 and 11.6 of the Determination.

In relation to the wash-up amount set out in clause 8.6 of the Determination, our procedures included recalculation of the wash-up amount in accordance with schedule 1.6 of the Determination and assessing it against the amounts and disclosures contained on pages 6 to 10 of the Annual Compliance Statement.

In relation to the quality standards in clause 9 of the Determination, our procedures included examination, on a test basis, of evidence relevant to the values and disclosures contained on pages 11 to 19 of the Annual Compliance Statement.

In relation to the quality incentive adjustment set out in schedule 4 of the Determination, our procedures included recalculation of the quality incentive adjustment in accordance with schedule 4 of the Determination and assessing it against the amounts and disclosures contained on pages 20 to 21 of the Annual Compliance Statement.

An assurance engagement to report on the Company's compliance with the Determination involves performing procedures to obtain evidence about the compliance activity and controls implemented to meet the requirements. The procedures selected depend on our judgement, including the identification and assessment of the risks of material non-compliance with the requirements.

### **Inherent limitations**

Because of the inherent limitations of an assurance engagement, together with the internal control structure, it is possible that fraud, error, or non-compliance with clauses 11.5 and 11.6 of the Determination may occur and not be detected. A reasonable assurance engagement throughout the assessment period does not provide assurance on whether compliance with clauses 11.5 and 11.6 of the Determination will continue in the future.

## **Restricted use**

This report has been prepared for use by the directors of the Company and the Commerce Commission in accordance with clause 11.5(e) of the Determination and is provided solely for the purpose of establishing whether the compliance requirements have been met. We disclaim any assumption of responsibility for any reliance on this report to any person other than the directors of the Company and the Commerce Commission, or for any other purpose than that for which it was prepared.

## **Independence and quality control**

We complied with the Auditor-General's:

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

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 assurance engagement on the Information Disclosures and the annual audit of the Company's group financial statements and statements of performance, we have no relationship with or interests in the Company.



John Mackey  
Audit New Zealand  
On behalf of the Auditor-General  
Christchurch, New Zealand  
26 August 2021