

# Electricity Invercargill Limited

## **DEFAULT PRICE QUALITY PATH ANNUAL COMPLIANCE STATEMENT**

1 April 2022 – 31 March 2023 Assessment Period

*Pursuant to the Electricity Distribution Services Default Price-Quality Path  
Determination 2020*

29 June 2023

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## **1. Introduction**

Electricity Invercargill Limited is subject to price-quality regulation under Part 4 of the Commerce Act 1986. The Commerce Commission has set a Default Price-Quality Path (DPP) which applies to Electricity Invercargill Limited from 1 April 2020.

This annual compliance statement is published in accordance with clause 11.4 of the 2020 DPP Determination, and applies to the third assessment period, commencing 1 April 2022 and ending 31 March 2023.

## **2. Date prepared**

This statement was prepared on 29 June 2023.

### 3. Wash-up amount

#### 3.1 Statement of compliance

As demonstrated in Table 1 in Section 3.2, and consistent with clause 8.6 of the 2020 DPP Determination Electricity Invercargill Limited has complied with the wash-up amount calculation for the third assessment period.

#### 3.2 Wash-up amount calculation

**Table 1**

<b>Wash-up amount RY23</b>		
<b>Term</b>	<b>Description</b>	<b>Value (\$000)</b>
Actual allowable revenue (AAR)	<i>Sum of actual net allowable revenue, actual pass-through and recoverable</i>	19,973
Actual revenue (AR)	<i>Sum of actual revenue from prices plus other regulated income</i>	18,504
Revenue foregone (RV)	<i>Actual net allowable revenue x (revenue reduction percentage - 20%) when revenue reduction percentage is greater than 20%, otherwise nil</i>	-
<b>Wash-up amount</b>	<i>AAR - AR - RV</i>	<b>1,469</b>

Further information supporting actual allowable revenue is included in Section 3.2.1.

Further information supporting actual revenue is included in Section 3.2.2.

Further information supporting revenue foregone is included in Section 3.2.3.

### 3.2.1 Actual allowable revenue

Table 2 below shows the actual allowable revenue for the assessment period consistent with Schedule 1.6 of the 2020 DPP Determination.

**Table 2**

Actual allowable revenue RY23		
Term	Description	Value (\$000)
Actual net allowable revenue (ANAR)	<i>Amount calculated in accordance with Schedule 1.6 of the Determination for the third assessment period</i>	13,824
Actual pass-through costs	<i>Sum of all pass-through costs that were incurred or approved by the Commission in the assessment period</i>	295
Actual recoverable costs	<i>Sum of all recoverable costs that were incurred or approved by the Commission in the assessment period</i>	5,878
Revenue wash-up drawn down amount	<i>The opening wash-up account balance of the previous period multiplied by WACC<sup>2</sup></i>	(24)
<b>Total actual allowable revenue (AAR)</b>	<i>Actual net allowable revenue + actual pass-through costs and actual recoverable costs + revenue wash-up drawn down amount</i>	<b>19,973</b>

Further information supporting actual net allowable revenue, actual pass-through costs, actual recoverable costs and the revenue wash-up drawn down amount is included in Appendix A.

### 3.2.2 Actual revenue

Table 3 below shows actual revenue for the assessment period consistent with clause 4.2 of the 2020 DPP Determination.

**Table 3**

Actual revenue RY23		
Term	Description	Value (\$000)
Actual revenue from prices	<i>Actual prices between 1 April 2022 and 31 March 2023 multiplied by actual quantities for the assessment period</i>	18,430
Other regulated income	<i>Other income associated with supply of electricity distribution services</i>	75
<b>Total actual revenue (AR)</b>	<i>Sum of actual revenue from prices plus other regulated income</i>	<b>18,504</b>

Further information supporting actual revenue from prices is included in Appendix B.

### 3.2.3 Revenue foregone

Table 4 below shows the revenue foregone consistent with clause 4.2 of the 2020 DPP Determination.

**Table 4**

Revenue foregone RY23		
Term	Description	Value (\$000)
Actual net allowable revenue (ANAR)	<i>Amount calculated in accordance with Schedule 1.6 of the Determination for the third assessment period</i>	13,824
Revenue reduction percentage (RRP)	<i>1 - (actual revenue from prices / forecast revenue from prices)</i>	1.72%
<b>Revenue foregone (RV)</b>	<i>Actual net allowable revenue x (RRP- 20%) when RRP is greater than 20%, otherwise nil</i>	-

## 4. Quality standards

### 4.1 Statement of compliance with planned interruptions quality standards

Electricity Invercargill Limited is subject to a planned accumulated SAIDI limit and a planned accumulated SAIFI limit which are assessed for the DPP regulatory period as stated in clause 9.2 of the 2020 DPP Determination.

Table 5 and Table 6 below show the planned accumulated SAIDI and SAIFI limits for Electricity Invercargill Limited for the DPP regulatory period and the planned SAIDI and SAIFI assessed values for the third assessment period.

**Table 5**

<b>Planned interruptions quality standard - SAIDI</b>	
Sum of planned SAIDI assessed values $\leq$ Planned accumulated SAIDI limit	
Planned accumulated SAIDI limit	114.49
Cumulative Planned SAIDI assessed value for the first, second and third assessment period	44.18
Compliance result	<b>Compliant</b>

**Table 6**

<b>Planned interruptions quality standard - SAIFI</b>	
Sum of planned SAIFI assessed values $\leq$ Planned accumulated SAIFI limit	
Planned accumulated SAIFI limit	0.5183
Cumulative Planned SAIFI assessed value for the first, second and third assessment period	0.2657
Compliance result	<b>Compliant</b>

Further information supporting planned SAIDI and SAIFI assessed values is included in Section 4.1.1.

#### 4.1.1 Planned SAIDI and SAIFI assessed values

Table 7 and Table 8 below show Electricity Invercargill Limited's planned SAIDI and SAIFI assessed values for the assessment period.

**Table 7**

<b>Planned SAIDI assessed value RY23</b>		
Term	Description	Value
Class B non-notified interruptions		0.01
Class B notified interruptions falling outside window		1.40
SAIDI <sub>B</sub>	<i>Sum of Class B non-notified interruptions</i>	1.41
Class B notified interruptions falling inside window		28.58
Class B intended interruptions cancelled without notice		0.13
Class B intended interruptions cancelled with notice		-
SAIDI <sub>N</sub>	<i>Sum of Class B notified interruptions</i>	28.71
Planned SAIDI assessed value	$SAIDI_B + (SAIDI_N/2)$	15.76

**Table 8**

<b>Planned SAIFI assessed value RY23</b>		
Term	Description	Value
Planned SAIFI assessed value	<i>Sum of Class B interruptions commencing within the assessment period</i>	0.0812



## 4.2 Statement of compliance with unplanned interruptions quality standards

As demonstrated in Table 9 and Table 10 below, and consistent with clause 9.7 of the 2020 DPP Determination, Electricity Invercargill Limited has complied with the unplanned interruptions quality standard.

**Table 9**

<b>Unplanned interruptions quality standard RY23 - SAIDI</b>		
Unplanned SAIDI assessed value ≤ Unplanned SAIDI limit		
Unplanned SAIDI limit		25.86
Unplanned SAIDI assessed value	<i>Sum of normalised SAIDI values for Class C interruptions commencing within the assessment period</i>	17.80
Compliance result		<b>Compliant</b>

**Table 10**

<b>Unplanned interruptions quality standard RY23 - SAIFI</b>		
Unplanned SAIFI assessed value ≤ Unplanned SAIFI limit		
Unplanned SAIFI limit		0.6956
Unplanned SAIFI assessed value	<i>Sum of normalised SAIFI values for Class C interruptions commencing within the assessment period</i>	0.2444
Compliance result		<b>Compliant</b>

Information about policies, procedures and calculations for measuring planned and unplanned interruptions during the assessment period is in Appendix C.

### 4.2.1 Major events

Table 11 and Table 12 below show the SAIDI and SAIFI values attributed to major events which occurred during the assessment period.

The SAIDI unplanned major event boundary value is 4.13

The SAIFI unplanned major event boundary value is 0.0804

Further information about major events is included in Appendix D.

**Table 11**

<b>Unplanned SAIDI major events RY23</b>			
Start	End	Pre-normalised unplanned SAIDI	Normalised unplanned SAIDI
15 July 2022 18:00pm	17 July 2022 17:00pm	5.285	0.086
2 November 2022 03:00am	4 November 2022 02:00am	12.857	0.086

**Table 12**

Unplanned SAIFI major events RY23			
Start	End	Pre-normalised unplanned SAIFI	Normalised unplanned SAIFI
2 November 2022 03:00am	4 November 2022 02:00am	0.1519	0.0017
5 November 2022 14:30pm	7 November 2022 13:30pm	0.0982	0.0017

### 4.3 Statement of compliance with extreme event standard

As demonstrated in Table 13 below, and consistent with clause 9.9 of the 2020 DPP Determination Electricity Invercargill Limited has complied with the extreme event standard.

**Table 13**

Extreme event standard RY23	
<i>Unplanned SAIDI value ≤ 120 minutes, and customer interruption minutes ≤ six million during any 24-hour period, excluding unplanned interruptions from major external factors</i>	
Number of extreme events	Compliance result
0	Compliant

#### 4.4 Quality Incentive Adjustment

Table 14 below shows Electricity Invercargill Limited's quality incentive adjustment for the assessment period.

**Table 14**

Quality Incentive Adjustment RY23		
Term	Description	Value (\$000)
SAIDI planned adjustment	$(SAIDI_{planned, target} - SAIDI_{planned, assessed}) \times 0.5 \times IR$	(10.34)
SAIDI unplanned adjustment	$(SAIDI_{unplanned, target} - SAIDI_{unplanned, assessed}) \times IR$	(6.14)
Total adjustment	$SAIDI_{planned adjustment} + SAIDI_{unplanned adjustment}$	(16.48)
Revenue at risk	$0.02 * ANAR$	276.48
Total penalty/reward		(16.48)
67th percentile estimate of post-tax WACC		4.23%
Quality incentive adjustment		<b>(17.91)</b>

Table 15 below shows Electricity Invercargill Limited's quality incentive adjustment inputs consistent with Schedule 4 of the 2020 DPP Determination.

**Table 15**

Quality Incentive Adjustment Inputs RY23					
Term	Units	Value	Term	Units	Value
SAIDI planned interruption cap	minutes	22.90	SAIDI unplanned interruption cap	minutes	25.86
SAIDI planned interruption collar	minutes	-	SAIDI unplanned interruption collar	minutes	-
SAIDI planned interruption target	minutes	7.63	SAIDI unplanned interruption target	minutes	15.39
Planned SAIDI assessed value	Minutes	15.76	Unplanned SAIDI assessed value	minutes	17.80
Incentive rate		2,544			
Actual net allowable revenue (ANAR)	\$000	13,824			
SAIDI planned interruption target	minutes	7.63	SAIDI unplanned interruption target	minutes	15.39
Minimum of the planned SAIDI cap and assessed value	minutes	15.76	Minimum of the unplanned SAIDI cap and assessed value	minutes	15.38
Planned SAIDI subject to incentive	minutes	(8.13)	Unplanned SAIDI subject to incentive	minutes	(2.41)
Adjustment (IR x 0.5)	\$	1,272	Adjustment (IR)	\$	2,544
SAIDI planned adjustment	\$000	(10.34)	SAIDI unplanned adjustment	\$000	(6.14)

## 5. Transactions

Electricity Invercargill Limited has not entered into any agreements with another EDB or Transpower for an amalgamation, merger, major transaction or transfer in the assessment period.

## 6. Director's certification

A Director's certificate in the form set out in Schedule 7 of the 2020 DPP Determination is included as Appendix E.

## 7. Assurance report

An assurance report meeting the requirements of Schedule 8 of the 2020 DPP Determination is included in Appendix F.

## Appendix A – Actual Net Allowable Revenue, Pass-through and recoverable costs

### Actual Net Allowable Revenue

Table 16

Actual net allowable revenue RY23		
Term	Description	Value (\$000)
ANAR 2021/2022	Actual net allowable revenue for the year ending 2022	12,908
$(1 + \Delta CPI_{2022/23})$	Average change in Consumer Price Index	1.071
$(1 - X)$	Annual rate of change	1
Actual net allowable revenue (ANAR)	Actual net allowable revenue for the year ending 2023	13,824

$\Delta CPI_{2023}$			
Numerator	Numerator	Denominator	
CPI Jun 2022	1161	CPI Jun 2021	1082
CPI Sep,2022	1186	CPI Sep,2021	1106
CPI Dec 2022	1203	CPI Dec 2021	1122
CPI Mar,2023	1218	CPI Mar,2022	1142
Total	4768	Total	4452
$\Delta CPI_{2022}$	7.10%		

### Pass-through costs

Table 17

Actual and forecast pass-through costs RY23			
Actual pass-through costs	Actual (\$000)	Forecast (\$000)	Forecast variance (\$000)
Rates on system fixed assets	198	132	66
Commerce Act levies	37	27	11
Electricity Authority levies	49	53	(4)
Utilities Disputes levies	12	11	1
<b>Total actual pass-through costs</b>	<b>295</b>	<b>222</b>	<b>73</b>

## Recoverable costs

**Table 18**

Actual and forecast recoverable costs RY23			
Actual recoverable costs	Actual (\$000)	Forecast (\$000)	Forecast variance (\$000)
IRIS incentive adjustment	217	217	-
Transmission charges	5,425	5,425	-
New investment contract charges	337	337	-
System operator services charges	-	-	-
Avoided transmission charges			-
Distributed generation allowance	-	-	-
Claw-back	-	-	-
Catastrophic event allowance	-	-	-
Extended reserves allowance	-	-	-
Quality incentive adjustment	8	8	-
Capex wash-up adjustment	(134)	(134)	-
Reconsideration event allowance	-	-	-
Quality standard variation engineers fee	-	-	-
Urgent project allowance	-	-	-
Fire and Emergency NZ levies	26	20	6
Innovation project allowance	-	-	-
<b>Total actual recoverable costs</b>	<b>5,878</b>	<b>5,872</b>	<b>6</b>

## Revenue wash-up drawn down amount

**Table 19**

Revenue wash-up drawn down amount RY23		
Term	Description	Value (\$000)
Wash-up amount 2020/21	<i>Actual revenue 2020/21 minus Actual Allowable Revenue 2020/21</i>	(22)
Voluntary undercharging amount foregone		-
Wash-up amount 2021/22 - Voluntary undercharging amount foregone		(22)
67th percentile estimate of post-tax WACC		4.23%
Opening Wash-Up Account Balance	(Wash-up amount for the previous assessment period – voluntary undercharging amount foregone for the previous assessment period) × (1 + 67th percentile estimate of post-tax WACC) <sup>2</sup>	(24)

**Table 20**

Voluntary undercharging amount foregone RY21		
Term	Description	Value (\$000)
Voluntary undercharging revenue floor	Voluntary undercharging revenue floor 2020/21	15,223
Forecast revenue from prices	Forecast revenue from prices 2020/21	19,457
Voluntary undercharging amount foregone	Voluntary undercharging revenue floor minus forecast revenue from prices, if the forecast revenue from prices is greater than the voluntary undercharging revenue floor then nil	0

**Table 21**

<b>Voluntary undercharging revenue floor RY21</b>		
<b>Term</b>	<b>Description</b>	<b>Value (\$000)</b>
Forecast allowable revenue	Forecast allowable revenue 2020-21	19,468
Voluntary undercharging threshold		0.9
Forecast allowable revenue x Voluntary undercharging threshold	Forecast allowable revenue 2020/21 multiplied by Voluntary undercharging threshold	17,521
Allowable notional revenue from prices for the previous period	Allowable notional revenue from prices 2019/20	13,839
1 + limit on annual percentage increase in forecast revenue from prices		1.1
forecast revenue from prices for the previous period x 1 + limit on annual percentage increase in forecast revenue from prices	Forecast revenue 2019/20 multiplied by 1 + limit on annual percentage increase in forecast revenue from prices	15,223
Voluntary undercharging revenue floor	Lessor of, forecast allowable revenue x voluntary undercharging threshold and forecast revenue from prices for the previous period x 1 + limit on annual percentage increase in forecast revenue from prices	15,223



## Appendix B – Prices and quantities

Table 22 shows the actual prices and quantities for actual revenue from prices for the Third assessment period.

**Table 22**

Actual revenue from prices RY23				
Price Category	Unit	Unit price (\$)	Actual quantity	Actual revenue (\$000)
ND08P	\$/day	\$ 0.6300	35	\$ 8.07
ND08Q	\$/day	\$ 0.4383	91	\$ 14.60
ND20P	\$/day	\$ 1.1641	1,269	\$ 539.23
ND20Q	\$/day	\$ 0.8084	7,702	\$ 2,272.69
NDL20P	\$/day	\$ 0.3000	1,015	\$ 111.18
NDL20Q	\$/day	\$ 0.2000	5,236	\$ 382.20
NDL08P	\$/day	\$ 0.3000	22	\$ 2.44
NDL08Q	\$/day	\$ 0.2000	100	\$ 7.27
NS001L	\$/day	\$ 0.0966	5,554	\$ 195.81
NS001P	\$/day	\$ 0.4520	42	\$ 6.90
NS008P	\$/day	\$ 0.6300	175	\$ 40.17
NS008Q	\$/day	\$ 0.4383	11	\$ 1.75
NS020P	\$/day	\$ 1.1641	275	\$ 116.79
NS020Q	\$/day	\$ 0.8084	82	\$ 24.09
NT015P	\$/day	\$ 0.9733	71	\$ 25.06
NT015Q	\$/day	\$ 0.6300	7	\$ 1.63
NT030P	\$/day	\$ 1.6301	544	\$ 323.61
NT030Q	\$/day	\$ 1.1094	109	\$ 44.00
NT050P	\$/day	\$ 3.3284	322	\$ 390.60
NT050Q	\$/day	\$ 2.2601	65	\$ 53.62
NT075P	\$/day	\$ 6.8349	122	\$ 304.02
NT075Q	\$/day	\$ 4.9722	15	\$ 27.22
NT100P	\$/day	\$ 8.3141	71	\$ 215.65
NT100Q	\$/day	\$ 6.0269	7	\$ 15.40
Total Fixed Charges				\$ 5,124.00

Variable Charges	Peak/MWH	Shoulder/MWH	Night/MWH	\$/Peak MWH	\$/Shoulder MWH	\$/Night MWH	Total (\$000)
Residential & General	59,166	52,367	36,991	67.11	56.00	10.00	7,273
EIL 20 KVA Low	16,664	14,603	10,117	103.58	81.15	10.00	3,012
EIL 8 KVA Low	319	276	216	84.37	62.32	10.00	46
<b>Total</b>							<b>10,332</b>

Price Category	Unit	Unit price	Actual quantity	Actual revenue (\$000)	Unit	Unit price	Actual quantity	Actual revenue (\$000)	ActualTotal revenue (\$000)
7227954NV-421	\$/day	4.17	1.00	\$ 1.52	\$/MWh	0.00	0.00	\$ -	\$ 1.52
7302304NV-CA2	\$/day	2.24	1.00	\$ 0.82	\$/MWh	0.00	0.00	\$ -	\$ 0.82
730262NV-92A	\$/day	-0.88	1.00	-\$ 0.32	\$/MWh	0.00	0.00	\$ -	-\$ 0.32
733395NV-F13	\$/day	1.75	1.00	\$ 0.64	\$/MWh	0.00	0.00	\$ -	\$ 0.64
734325NV-9C1	\$/day	6.94	1.00	\$ 2.53	\$/MWh	0.00	0.00	\$ -	\$ 2.53
734326NV-501	\$/day	8.61	1.00	\$ 3.14	\$/MWh	0.00	0.00	\$ -	\$ 3.14
734355NV-C9C	\$/day	14.92	1.00	\$ 5.45	\$/MWh	0.00	0.00	\$ -	\$ 5.45
734360NV-62B	\$/day	-5.71	1.00	-\$ 2.08	\$/MWh	0.00	0.00	\$ -	-\$ 2.08
7344583NV-C71	\$/day	5.16	1.00	\$ 1.88	\$/MWh	0.00	0.00	\$ -	\$ 1.88
734846NV-9FF	\$/day	4.33	0.79	\$ 1.26	\$/MWh	0.00	0.00	\$ -	\$ 1.26
7350005NV-3D0	\$/day	2.11	1.00	\$ 0.77	\$/MWh	0.00	0.00	\$ -	\$ 0.77
7350693NV-BBE	\$/day	3.89	1.00	\$ 1.42	\$/MWh	0.00	0.00	\$ -	\$ 1.42
735249NV-D8B	\$/day	9.18	1.00	\$ 3.35	\$/MWh	0.00	0.00	\$ -	\$ 3.35
740340NV-747	\$/day	-6.16	1.00	-\$ 2.25	\$/MWh	0.00	0.00	\$ -	-\$ 2.25
740394NV-B0F	\$/day	8.96	1.00	\$ 3.27	\$/MWh	0.00	0.00	\$ -	\$ 3.27
7433294NV-FC6	\$/day	15.39	1.00	\$ 5.62	\$/MWh	0.00	0.00	\$ -	\$ 5.62
743331NV-CBF	\$/day	4.93	1.00	\$ 1.80	\$/MWh	0.00	0.00	\$ -	\$ 1.80
7433753NV-0E6	\$/day	-7.98	1.00	-\$ 2.91	\$/MWh	0.00	0.00	\$ -	-\$ 2.91
744592NV-A06	\$/day	7.46	0.63	\$ 1.72	\$/MWh	0.00	0.00	\$ -	\$ 1.72
7447592NV-D72	\$/day	3.82	1.00	\$ 1.40	\$/MWh	0.00	0.00	\$ -	\$ 1.40
7501257NV-2E9	\$/day	6.81	0.30	\$ 0.74	\$/MWh	0.00	0.00	\$ -	\$ 0.74
750191NV-4A6	\$/day	1.71	1.00	\$ 0.62	\$/MWh	0.00	0.00	\$ -	\$ 0.62
7501996NV-A4D	\$/day	-2.04	1.00	-\$ 0.74	\$/MWh	0.00	0.00	\$ -	-\$ 0.74
755825NV-937	\$/day	20.02	1.00	\$ 7.31	\$/MWh	0.00	0.00	\$ -	\$ 7.31
82029943NV-B5B	\$/day	12.52	1.00	\$ 4.57	\$/MWh	0.00	0.00	\$ -	\$ 4.57
8305375NV-D2C	\$/day	0.63	1.00	\$ 0.23	\$/MWh	0.00	0.00	\$ -	\$ 0.23
836598NV-F14	\$/day	-16.09	1.00	-\$ 5.87	\$/MWh	0.00	0.00	\$ -	-\$ 5.87
8541431NV-DF3	\$/day	14.13	1.00	\$ 5.16	\$/MWh	0.00	0.00	\$ -	\$ 5.16
8665382NV-F7A	\$/day	1.13	1.00	\$ 0.41	\$/MWh	0.00	0.00	\$ -	\$ 0.41
880344NV-C87	\$/day	-7.75	1.00	-\$ 2.83	\$/MWh	0.00	0.00	\$ -	-\$ 2.83
8803601NV-E7B	\$/day	8.86	1.00	\$ 3.23	\$/MWh	0.00	0.00	\$ -	\$ 3.23
880375NV-73A	\$/day	8.60	1.00	\$ 3.14	\$/MWh	0.00	0.00	\$ -	\$ 3.14
8803767NV-900	\$/day	-2.52	1.00	-\$ 0.92	\$/MWh	0.00	0.00	\$ -	-\$ 0.92
900319NV-09D	\$/day	6.79	1.00	\$ 2.48	\$/MWh	0.00	0.00	\$ -	\$ 2.48
9003573NV-568	\$/day	4.93	1.00	\$ 1.80	\$/MWh	0.00	0.00	\$ -	\$ 1.80
930505NV-E04	\$/day	6.81	1.00	\$ 2.49	\$/MWh	0.00	0.00	\$ -	\$ 2.49
931326NV-837	\$/day	17.41	1.00	\$ 6.36	\$/MWh	0.00	0.00	\$ -	\$ 6.36
931746NV-BC6	\$/day	18.23	1.00	\$ 6.65	\$/MWh	0.00	0.00	\$ -	\$ 6.65
931760NV-71C	\$/day	5.25	1.00	\$ 1.92	\$/MWh	0.00	0.00	\$ -	\$ 1.92
931775NV-0FE	\$/day	16.54	0.00	\$ -	\$/MWh	0.00	0.00	\$ -	\$ -

931776NV-C3E	\$/day	23.16	1.00	\$	8.45	\$/MWh	0.00	0.00	\$	-	\$	8.45
934525NV-5D1	\$/day	5.23	1.00	\$	1.91	\$/MWh	0.00	0.00	\$	-	\$	1.91
7205085NV-6A2	\$/day	11.61	1.00	\$	4.24	\$/MWh	22.11	174.94	\$	3.87	\$	8.11
721862NV-A61	\$/day	3.85	1.00	\$	1.41	\$/MWh	33.58	38.83	\$	1.30	\$	2.71
721876NV-1C6	\$/day	10.49	1.00	\$	3.83	\$/MWh	44.43	80.52	\$	3.58	\$	7.41
7227011NV-2C2	\$/day	12.43	1.00	\$	4.54	\$/MWh	59.81	72.85	\$	4.36	\$	8.90
722703NV-43B	\$/day	17.81	1.00	\$	6.50	\$/MWh	24.14	278.71	\$	6.73	\$	13.23
7229001NV-0AF	\$/day	9.47	1.00	\$	3.46	\$/MWh	31.61	129.76	\$	4.10	\$	7.56
724179NV-031	\$/day	4.40	1.00	\$	1.60	\$/MWh	53.42	30.98	\$	1.65	\$	3.26
724187NV-3BD	\$/day	15.82	1.00	\$	5.78	\$/MWh	28.03	215.15	\$	6.03	\$	11.81
724111NV-DD5	\$/day	9.57	1.00	\$	3.49	\$/MWh	49.13	83.36	\$	4.10	\$	7.59
73015753NV-A0E	\$/day	12.06	1.00	\$	4.40	\$/MWh	22.95	198.09	\$	4.55	\$	8.95
7301908NV-756	\$/day	8.81	1.00	\$	3.22	\$/MWh	20.63	154.97	\$	3.20	\$	6.41
7301973NV-CDF	\$/day	9.61	1.00	\$	3.51	\$/MWh	20.46	182.93	\$	3.74	\$	7.25
7302313NV-BC5	\$/day	4.82	1.00	\$	1.76	\$/MWh	60.11	28.26	\$	1.70	\$	3.46
7302953NV-36A	\$/day	15.22	1.00	\$	5.56	\$/MWh	31.76	178.44	\$	5.67	\$	11.22
7317032NV-617	\$/day	20.12	1.00	\$	7.34	\$/MWh	37.34	234.11	\$	8.74	\$	16.09
733399NV-C0D	\$/day	8.53	1.00	\$	3.11	\$/MWh	25.62	111.06	\$	2.85	\$	5.96
734110NV-971	\$/day	18.68	1.00	\$	6.82	\$/MWh	36.35	212.74	\$	7.73	\$	14.55
7341272NV-801	\$/day	7.34	1.00	\$	2.68	\$/MWh	46.94	57.09	\$	2.68	\$	5.36
7341276NV-90B	\$/day	12.50	1.00	\$	4.56	\$/MWh	29.23	167.27	\$	4.89	\$	9.45
734165NV-163	\$/day	46.87	1.00	\$	17.11	\$/MWh	35.67	176.19	\$	6.28	\$	23.39
7341792NV-7BE	\$/day	16.96	1.00	\$	6.19	\$/MWh	26.37	255.38	\$	6.73	\$	12.93
7341793NV-BFB	\$/day	11.53	1.00	\$	4.21	\$/MWh	29.18	138.24	\$	4.03	\$	8.24
734188NV-482	\$/day	45.76	1.00	\$	16.70	\$/MWh	19.90	892.40	\$	17.76	\$	34.46
734318NV-162	\$/day	16.89	1.00	\$	6.16	\$/MWh	37.86	143.46	\$	5.43	\$	11.59
734424NV-A86	\$/day	6.37	1.00	\$	2.32	\$/MWh	38.03	63.30	\$	2.41	\$	4.73
734460NV-929	\$/day	9.12	1.00	\$	3.33	\$/MWh	63.14	52.97	\$	3.34	\$	6.67
734802NV-A50	\$/day	16.48	1.00	\$	6.02	\$/MWh	36.31	112.47	\$	4.08	\$	10.10
7403555NV-A42	\$/day	17.19	1.00	\$	6.28	\$/MWh	33.91	168.02	\$	5.70	\$	11.97
740373NV-C7F	\$/day	15.09	1.00	\$	5.51	\$/MWh	42.28	122.85	\$	5.19	\$	10.70
740385NV-DE7	\$/day	20.12	1.00	\$	7.35	\$/MWh	21.99	328.42	\$	7.22	\$	14.57
740630NV-71F	\$/day	16.93	1.00	\$	6.18	\$/MWh	36.68	190.40	\$	6.98	\$	13.16
740649NV-C13	\$/day	6.47	1.00	\$	2.36	\$/MWh	31.47	74.89	\$	2.36	\$	4.72
7433014NV-08B	\$/day	44.26	1.00	\$	16.16	\$/MWh	29.41	552.85	\$	16.26	\$	32.42
7433292NV-E49	\$/day	37.00	1.00	\$	13.50	\$/MWh	39.94	336.15	\$	13.43	\$	26.93
744103NV-5A5	\$/day	51.43	1.00	\$	18.77	\$/MWh	23.17	813.19	\$	18.84	\$	37.61
744608NV-473	\$/day	22.63	1.00	\$	8.26	\$/MWh	28.84	319.95	\$	9.23	\$	17.49
744611NV-08F	\$/day	26.00	1.00	\$	9.49	\$/MWh	32.97	273.10	\$	9.00	\$	18.49
744655NV-320	\$/day	14.82	1.00	\$	5.41	\$/MWh	27.98	186.47	\$	5.22	\$	10.63
7446911NV-954	\$/day	21.12	1.00	\$	7.71	\$/MWh	64.23	180.43	\$	11.59	\$	19.30
74471011NV-36B	\$/day	38.15	0.16	\$	2.25	\$/MWh	0.00	5.04	\$	-	\$	2.25
7447142NV-C31	\$/day	14.66	1.00	\$	5.35	\$/MWh	28.73	182.50	\$	5.24	\$	10.60
7447635NV-BA4	\$/day	36.14	1.00	\$	13.19	\$/MWh	43.97	340.65	\$	14.98	\$	28.17
754696NV-OEE	\$/day	25.95	1.00	\$	9.47	\$/MWh	32.96	274.87	\$	9.06	\$	18.53
7551948NV-7E0	\$/day	26.68	1.00	\$	9.74	\$/MWh	32.26	284.71	\$	9.18	\$	18.92
755884NV-D6D	\$/day	11.89	1.00	\$	4.34	\$/MWh	53.89	86.75	\$	4.68	\$	9.01

7559027NV-3C7	\$/day	22.16	1.00	\$	8.09	\$/MWh	35.95	272.76	\$	9.81	\$	17.90
760735NV-A99	\$/day	12.43	1.00	\$	4.54	\$/MWh	42.48	94.16	\$	4.00	\$	8.54
760737NV-A1C	\$/day	39.30	1.00	\$	14.35	\$/MWh	43.85	327.11	\$	14.34	\$	28.69
7757907NV-783	\$/day	40.14	1.00	\$	14.65	\$/MWh	37.88	376.57	\$	14.26	\$	28.92
7757994NV-4A4	\$/day	18.11	1.00	\$	6.61	\$/MWh	40.98	154.38	\$	6.33	\$	12.94
810201NV-DAD	\$/day	9.59	1.00	\$	3.50	\$/MWh	42.23	32.54	\$	1.37	\$	4.87
8102959NV-5D5	\$/day	32.41	1.00	\$	11.83	\$/MWh	33.74	380.51	\$	12.84	\$	24.67
8144266NV-0A8	\$/day	19.92	1.00	\$	7.27	\$/MWh	23.55	286.36	\$	6.74	\$	14.02
825292NV-886	\$/day	53.67	1.00	\$	19.59	\$/MWh	26.33	758.98	\$	19.98	\$	39.57
8305967NV-D0E	\$/day	14.93	1.00	\$	5.45	\$/MWh	106.29	55.14	\$	5.86	\$	11.31
8305981NV-63B	\$/day	51.15	1.00	\$	18.67	\$/MWh	39.89	386.05	\$	15.40	\$	34.07
831121NV-B96	\$/day	14.33	1.00	\$	5.23	\$/MWh	49.10	91.26	\$	4.48	\$	9.71
832431NV-6DE	\$/day	43.51	1.00	\$	15.88	\$/MWh	56.85	283.47	\$	16.12	\$	32.00
835083NV-C88	\$/day	11.80	1.00	\$	4.31	\$/MWh	149.90	24.85	\$	3.72	\$	8.03
835871NV-C17	\$/day	29.81	1.00	\$	10.88	\$/MWh	36.03	311.53	\$	11.22	\$	22.10
8365737NV-155	\$/day	38.42	1.00	\$	14.02	\$/MWh	38.65	452.96	\$	17.51	\$	31.53
8425758NV-FE5	\$/day	17.07	1.00	\$	6.23	\$/MWh	31.60	189.05	\$	5.97	\$	12.21
8509006NV-D55	\$/day	14.12	1.00	\$	5.15	\$/MWh	19.99	240.50	\$	4.81	\$	9.96
8509025NV-CC0	\$/day	30.30	1.00	\$	11.06	\$/MWh	24.32	483.84	\$	11.77	\$	22.83
8509026NV-000	\$/day	28.53	1.00	\$	10.41	\$/MWh	30.09	363.34	\$	10.93	\$	21.35
850908NV-B67	\$/day	80.31	1.00	\$	29.31	\$/MWh	20.74	1,430.19	\$	29.66	\$	58.98
8509245NV-937	\$/day	22.54	1.00	\$	8.23	\$/MWh	19.81	431.35	\$	8.55	\$	16.77
850948NV-9C2	\$/day	3.03	1.00	\$	1.11	\$/MWh	26.34	17.68	\$	0.47	\$	1.57
8509962NV-AA6	\$/day	4.32	1.00	\$	1.58	\$/MWh	31.36	53.27	\$	1.67	\$	3.25
8665558NV-6AF	\$/day	12.69	1.00	\$	4.63	\$/MWh	51.20	85.14	\$	4.36	\$	8.99
880302NV-FAD	\$/day	13.05	1.00	\$	4.76	\$/MWh	20.96	217.27	\$	4.55	\$	9.32
8803031NV-F85	\$/day	19.73	1.00	\$	7.20	\$/MWh	19.79	376.01	\$	7.44	\$	14.64
8803032NV-345	\$/day	13.06	1.00	\$	4.77	\$/MWh	33.87	140.11	\$	4.75	\$	9.51
8803047NV-B57	\$/day	9.62	1.00	\$	3.51	\$/MWh	37.76	31.74	\$	1.20	\$	4.71
880308NV-D3C	\$/day	10.51	1.00	\$	3.83	\$/MWh	22.72	175.30	\$	3.98	\$	7.82
880309NV-179	\$/day	22.65	1.00	\$	8.27	\$/MWh	25.19	322.74	\$	8.13	\$	16.40
8803164NV-3C6	\$/day	10.13	1.00	\$	3.70	\$/MWh	27.68	140.42	\$	3.89	\$	7.58
8803165NV-F83	\$/day	6.76	1.00	\$	2.47	\$/MWh	29.59	90.57	\$	2.68	\$	5.15
880317NV-84F	\$/day	9.81	1.00	\$	3.58	\$/MWh	94.46	36.52	\$	3.45	\$	7.03
880321NV-E38	\$/day	18.46	1.00	\$	6.74	\$/MWh	19.56	340.39	\$	6.66	\$	13.39
880323NV-EBD	\$/day	24.11	1.00	\$	8.80	\$/MWh	21.87	436.46	\$	9.55	\$	18.35
880327NV-FB7	\$/day	43.19	1.00	\$	15.77	\$/MWh	20.47	727.26	\$	14.89	\$	30.65
8803283NV-7B5	\$/day	22.36	1.00	\$	8.16	\$/MWh	21.50	397.81	\$	8.55	\$	16.71
8803298NV-3CC	\$/day	47.50	1.00	\$	17.34	\$/MWh	37.37	508.58	\$	19.01	\$	36.34
880329NV-C2C	\$/day	133.29	1.00	\$	48.65	\$/MWh	25.81	1,870.66	\$	48.28	\$	96.93
880336NV-95F	\$/day	61.45	1.00	\$	22.43	\$/MWh	28.08	851.57	\$	23.91	\$	46.34
880361NV-C9D	\$/day	72.29	1.00	\$	26.39	\$/MWh	21.29	1,237.06	\$	26.34	\$	52.72
8803625NV-224	\$/day	20.66	1.00	\$	7.54	\$/MWh	21.06	363.52	\$	7.66	\$	15.20
880363NV-C18	\$/day	11.37	1.00	\$	4.15	\$/MWh	29.71	147.50	\$	4.38	\$	8.53
880397NV-D05	\$/day	43.17	1.00	\$	15.76	\$/MWh	34.33	551.22	\$	18.92	\$	34.68
9003051NV-DBD	\$/day	32.23	1.00	\$	11.76	\$/MWh	26.19	408.99	\$	10.71	\$	22.47

900305NV-92E	\$/day	38.66	1.00	\$ 14.11	\$/MWh	48.19	302.63	\$ 14.58	\$ 28.69
900306NV-5EE	\$/day	39.51	1.00	\$ 14.42	\$/MWh	51.53	254.84	\$ 13.13	\$ 27.55
9003071NV-0E8	\$/day	59.53	1.00	\$ 21.73	\$/MWh	22.61	955.35	\$ 21.60	\$ 43.33
90030815NV-060	\$/day	40.91	1.00	\$ 14.93	\$/MWh	29.39	444.23	\$ 13.06	\$ 27.99
9003081NV-0FF	\$/day	10.03	1.00	\$ 3.66	\$/MWh	39.65	74.29	\$ 2.95	\$ 6.61
900358NV-E7D	\$/day	22.26	1.00	\$ 8.12	\$/MWh	52.34	148.67	\$ 7.78	\$ 15.90
9003083NV-07A	\$/day	39.10	1.00	\$ 14.27	\$/MWh	20.33	921.63	\$ 18.74	\$ 33.01
900308NV-675	\$/day	55.47	1.00	\$ 20.25	\$/MWh	30.37	314.62	\$ 9.56	\$ 29.80
9003117NV-793	\$/day	52.55	1.00	\$ 19.18	\$/MWh	30.05	791.88	\$ 23.80	\$ 42.98
900313NV-20C	\$/day	17.95	1.00	\$ 6.55	\$/MWh	33.49	245.68	\$ 8.23	\$ 14.78
9003212NV-9DF	\$/day	7.58	1.00	\$ 2.77	\$/MWh	24.18	112.32	\$ 2.72	\$ 5.48
9003235NV-940	\$/day	65.00	1.00	\$ 23.72	\$/MWh	24.47	892.82	\$ 21.85	\$ 45.57
9003243NV-D92	\$/day	20.18	1.00	\$ 7.37	\$/MWh	23.57	272.92	\$ 6.43	\$ 13.80
9003244NV-058	\$/day	28.68	1.00	\$ 10.47	\$/MWh	20.02	539.62	\$ 10.80	\$ 21.27
900325NV-47B	\$/day	87.49	1.00	\$ 31.93	\$/MWh	18.80	1,814.50	\$ 34.11	\$ 66.05
900327NV-4FE	\$/day	6.77	1.00	\$ 2.47	\$/MWh	22.29	104.38	\$ 2.33	\$ 4.80
900330NV-399	\$/day	81.62	1.00	\$ 29.79	\$/MWh	21.23	1,236.00	\$ 26.24	\$ 56.03
9003385NV-2F6	\$/day	14.15	1.00	\$ 5.17	\$/MWh	22.61	176.00	\$ 3.98	\$ 9.15
9003387NV-273	\$/day	16.02	1.00	\$ 5.85	\$/MWh	28.24	37.35	\$ 1.05	\$ 6.90
900342NV-641	\$/day	10.38	1.00	\$ 3.79	\$/MWh	27.62	57.42	\$ 1.59	\$ 5.37
9003503NV-035	\$/day	16.62	1.00	\$ 6.07	\$/MWh	38.82	149.61	\$ 5.81	\$ 11.88
900350NV-C69	\$/day	9.42	1.00	\$ 3.44	\$/MWh	38.62	92.30	\$ 3.56	\$ 7.00
900351NV-02C	\$/day	25.95	1.00	\$ 9.47	\$/MWh	17.95	514.55	\$ 9.24	\$ 18.71
900356NV-DE6	\$/day	7.24	1.00	\$ 2.64	\$/MWh	66.36	352.95	\$ 23.42	\$ 26.07
9003603NV-336	\$/day	54.43	1.00	\$ 19.87	\$/MWh	25.97	678.57	\$ 17.62	\$ 37.49
900383NV-DEB	\$/day	23.93	1.00	\$ 8.73	\$/MWh	55.46	128.26	\$ 7.11	\$ 15.85
900384NV-021	\$/day	72.91	1.00	\$ 26.61	\$/MWh	29.81	861.35	\$ 25.68	\$ 52.29
9003995NV-251	\$/day	20.85	1.00	\$ 7.61	\$/MWh	34.98	191.05	\$ 6.68	\$ 14.29
920755NV-4EA	\$/day	25.79	1.00	\$ 9.41	\$/MWh	29.02	222.43	\$ 6.45	\$ 15.87
930503NV-F8B	\$/day	7.18	1.00	\$ 2.62	\$/MWh	53.22	162.20	\$ 8.63	\$ 11.25
931704NV-9E6	\$/day	13.51	1.00	\$ 4.93	\$/MWh	34.42	143.79	\$ 4.95	\$ 9.88
931741NV-60C	\$/day	48.50	1.00	\$ 17.70	\$/MWh	30.48	551.98	\$ 16.82	\$ 34.53
931749NV-418	\$/day	21.16	1.00	\$ 7.72	\$/MWh	29.05	247.25	\$ 7.18	\$ 14.90
933534NV-759	\$/day	15.28	1.00	\$ 5.58	\$/MWh	24.68	261.10	\$ 6.44	\$ 12.02
9406011NV-187	\$/day	70.25	1.00	\$ 25.64	\$/MWh	30.10	845.10	\$ 25.44	\$ 51.08
9406013NV-102	\$/day	35.24	1.00	\$ 12.86	\$/MWh	49.11	224.73	\$ 11.04	\$ 23.90
9408016NV-48D	\$/day	444.54	1.00	\$ 162.26	\$/MWh	32.94	4,551.58	\$ 149.93	\$ 312.19
880395NV-D80	\$/day	59.06	1.00	\$ 21.56	\$/MWh	32.64	171.80	\$ 5.61	\$ 27.17
900392NV-B03	\$/day	70.26	1.00	\$ 25.65	\$/MWh	22.72	1,192.75	\$ 27.10	\$ 52.74
7302939NV-E0B	\$/day	12.37	1.00	\$ 4.51	\$/MWh	31.59	136.41	\$ 4.31	\$ 8.82
7301152NV-DC2	\$/day	56.80	1.00	\$ 20.73	\$/MWh	0.00	584.71	\$ -	\$ 20.73
724445NV-1D2	\$/day	27.07	1.00	\$ 9.88	\$/MWh	31.26	164.11	\$ 5.13	\$ 15.01
90037054NV-AED	\$/day	93.09	0.92	\$ 31.18	\$/MWh	0.00	827.62	\$ -	\$ 31.18
7447401NV-751	\$/day	40.25	1.00	\$ 14.69	\$/MWh	30.67	568.80	\$ 17.45	\$ 32.14

<b>Total actual revenue from prices</b>	<b>18,430</b>
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Table 23 shows the forecast revenue from prices for the third assessment period from the price setting compliance statement.

**Table 23**

Forecast revenue from prices RY23	Value (\$000)
Total forecast revenue from prices	18,752

## Appendix C – Policies and procedures for measuring planned and unplanned interruptions

Electricity Invercargill Limited contracts PowerNet to manage its network via a Network Management Agreement. PowerNet has a range of quality-controlled documentation that govern the operational processes that surround the interruption, restoration and quality of supply to its customers and by which power interruptions are managed, recorded and reported at PowerNet.

The below processes and documentation are designed to cover the relevant information relating to the recording and reporting of SAIDI and SAIFI.

- OP-SC01 System Control Faults/Defects Processes
- OP-SC02 System Control Outages Processes
- OP-SC04 System Control Reporting Processes
- OP-STD-005 Planned Outages and Operating Orders Standard
- OP-STD-0001 Network Faults, Defects and Supply Complaints Standard
- OP-STD-011 Operating Sequence Standard

Key information includes:

- Responsibilities and critical tasks for preparation, checking, actioning, and altering operating sequences.
- Responsibilities for recording faults and unplanned interruptions at the system control operator level, through to reviewing and reporting of faults and interruptions.
- Methods by which notification of unplanned interruptions are identified and captured from various sources such as customers, network equipment, contractors, Transpower, the public or emergency services.
- The use of operating sequences for planned maintenance and unplanned fault restoration and how the information from these orders flow through to the Outage Reporting System in the form of duration of power interruptions and the number of customers affected.
- The method of notifying customers of planned or notified planned interruptions, including where and how this information is stored for future reference.
- The method of calculating raw SAIDI and SAIFI for both planned and unplanned interruptions.
- The process for uploading raw data extracted from the Outage Reporting System to calculate SAIDI and SAIFI assessed values, including the normalisation of unplanned major events.
- The preparation, retention and archiving of supporting records and data.

PowerNet interprets an “Interruption” (as defined in the Default Price-Quality Path Determinations) as the loss of power to a single consumer due to a single root cause. Cases where a customer receives multiple power cuts during the remediation of a single root cause are considered single interruptions for the purposes of SAIFI calculation. This interpretation maintains consistency with the approach used to calculate the quality limits under which Electricity Invercargill Limited operates.

The process for operating sequence reporting related to planned outages is described below.

When an Operating Sequence Number record is created in the ORS database application, there are a number of checks before the record can be saved. This particularly applies to an Operating Sequence that is for a 'Planned Interruption' that involves an 'ICP Outage'.

All the fields need to be populated except the 'Project Number' and 'Project Manager'.

If the 'Alternate Date Requirement' flag is set to 'Alternate Date Not Required', then the 'Alt Date Off', 'Time Off', 'Alt Date On' and 'Time On' can be left blank.

Once the 'Interruption Window' is populated with a 'Date Off' and 'Time Off' the duration (in minutes) is displayed and the 'Must Publish Before' dates and time are populated by the application for 'Planned & Notified' and 'Regular Planned' options.

The calculation of the 'Must Publish Before' date for the interruption to be considered as 'Planned and Notified' takes into account the number of available workdays before the Planned Interruption. This excludes Saturdays and Sundays, as well as any Public Holiday recorded in the ORS System. These Public Holiday Dates are published by the EA. There are notes on how the ORS System uses these 'Must Publish Before' dates later in this document.



There are a number of date checks (in addition to the required fields needing to be populated), around the dates and times that are entered. If any of these checks fail, the Operating Sequence record cannot be saved. These checks include:

Operating Sequence detail - Planned

Operating Sequence # 90764 A 107809 OS # 90764

Interruption Type ICP Outage Work Crew Invercargill Technical Project Number 417912

Network ELIN - Electricity Invercargill Network Work detail isolate rmu 789 maintenance Project Manager Lisa Terepai

Station SOUTHERN S/S

Work Purpose Network Maintenance Scenarios where we are replacing like for like, testing, or undertaking preventative maintenance.

Interruption Window

Date Off Tue 06/12/2022 Time Off 23:30 Date On Wed 07/12/2022 On 3:30 240 minutes duration

Alternate Date Requirement Alternate Date Not Required

Alt Date Off Time Off Alt Date On On

Planned & Notified 50% SAIDI Weighting Regular Planned 100% SAIDI Weighting

Must Publish Before Tue 22/11/2022 Mon 5/12/22 23:30

Published Mon 5/12/22 11:29

Confirmed 5/12/22 11:31

Interruption expected to be for full duration of the Interruption Window (remove the tick to enter a reduced duration)

POS Invercargill POS - EIL Voltage Standard (11kV)

PowerNet Substation Southern Sub Reason to use Alternate Date

Publish Type Regular Planned Complete 6/12/2022

Show Street Names (based on ICPs)

1. The Interruption window must be at least 60 minutes in the future
2. The Date / Time Off is not too far in the future (365 days)
3. The Date/Time On must be after the Date/Time Off
4. The minimum duration of the Interruption Window is 30 minutes
5. The maximum duration of the Interruption Window is two days (2880 mins)
6. If an 'Alternate Date Available' has been selected, the Alternate Date must be after the initial Date/Time on

This is also the option to enter an expected duration. If this option is chosen, the value entered must be less than the length of the Interruption Window.

After the Operating Sequence record is saved, the operator can add the details of network equipment to be used and select the ICP's that will be involved. The interruption can then be published, provided it is to occur less than 56 days in the future.

frm\_6991\_OpSeq\_Control\_Params

### Operating Sequence Control Parameters

Start Offset 60 mins (60)

Max Future Days 365 days (365)

Max Future Pub Days 56 days (56)

Min Interruption Dur 30 mins (30)

Max Interruption Dur 2880 mins (2880)

Close Form

When a Planned Interruption is Published the EIEP5 records are created by the ORS System and automatically transferred to the Registry Hub. In addition, the ORS System creates the data on PowerNet Limited’s Outage Web page so that customers can enquire on the Outage.

The Outage Planning Manager takes a screen capture of the PowerNet Limited Outage Web Page and saves the file as an audit record of the Web Page publishing process.

The Registry Hub delivers the EIEP5 files to the retailers (25 traders) and if successful, creates an ‘.AKE’ file to confirm the Hub has received the file and can deliver it, and a ‘.CONFIRM’ file that shows when the EIEP5 file is in the Traders Inbox. These ‘.AKE’ and ‘.CONFIRM’ files are downloaded by PowerNet Limited’s IT Systems and stored as an audit record.

As part of the ORS System, the date/time the last ‘.CONFIRM’ file is received is recorded, as well as the date/time that the PowerNet Limited Outage Web Site Screen Capture file was created. The later date of these two Date/Time stamps is considered as the Operating Sequence Publish Confirmation Time for the individual Operating Sequence. This time is compared to the previously recorded ‘Must Publish Before’ times, to determine if the record can be treated as a ‘Planned & Notified’, ‘Regular Planned’, or ‘Unplanned’ Interruption.

This process is programmatically automated for Planned Interruptions provided there are 25 EIEP5 files sent, 25 EIEP5 Confirmation records received, and 1 PowerNet Limited Web Site Screen Capture records. If there are more or less than these numbers, the process is currently handled by an IT Administration person.

Operating Sequence # **93819** A Find Op Seq # (eg 314 or 83142A) Allow Update Show records to Confirm Check for Missing Web

Interruption Type: ICP Outage Work Crew: Invercargill Field Services

Network: ELIN - Electricity Invercargill Network Work detail: Replace Pole, Install new ABS and Joindnt & Re-terminate Cable 'BK' Show on Web Page

Station: LEVEN ST S/S

Interruption Window

Date Off	Thu 22/06/2023	Time Off	21:00	Date On	Fri 23/06/2023	On	2:00
Alternate Date Requirement	Alternate Date Available						
Alt Date Off	Thu 29/06/2023	Time Off	21:00	Alt Date On	Fri 30/06/2023	On	2:00

Audit file link (eg CTCT)

File Date / Time	Trader
24/05/2023 9:26	AMPX
24/05/2023 9:26	CNIR
24/05/2023 9:26	CTCS
24/05/2023 9:26	CTCT
24/05/2023 9:26	ECOT
24/05/2023 9:26	EDGE
24/05/2023 9:26	ELKI
24/05/2023 9:26	EMHT
24/05/2023 9:26	FLCK
24/05/2023 9:26	GBUG
24/05/2023 9:26	GENE
24/05/2023 9:26	GENH
24/05/2023 9:26	GEOL
24/05/2023 9:26	MEEN
24/05/2023 9:26	MERI
24/05/2023 9:26	MERX
24/05/2023 9:26	OCTO
24/05/2023 9:26	PION
24/05/2023 9:26	PLUS
24/05/2023 9:26	PPPP
24/05/2023 9:26	PRME
24/05/2023 9:26	PSNZ

Planned & Notified 50% SAIDI Weighting Regular Planned 100% SAIDI Weighting

Must Publish Before Thu 8/06/2023 Wed 21/06/23 21:00

Published Wed 24/05/2023

Confirmed

Publish Type: Planned and Notified Complete

Cancelled Flg: Date Cancelled:

Type	Count	First File Date	Last	Time dif. 1st to last (mins)	elapsed time before confir
EIEP5 File Sent	30	24/05/2023 9:26	24/05/2023 9:26	0	
Confirms	30	24/05/2023 9:30	24/05/2023 9:31	1	

Last file 24/05/2023 9:31

ICP Cnt	OpSeq#	Check	Date Off	Note	User	Dt Stamp	OpSeqNum
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Set Confirmed Time

Alt Day Used Flg: 662

Alt Day Reason:

Alt Dt Used On:

30 Traders expected for EIEP5A Notifications

Refresh

Voltage: Standard (11kv)

Show Last 30 days

Close Form

In addition to these processes, PowerNet Limited Administration Reception Staff currently view each Web Site Screen Capture and manually enter the Operating Sequence Number, the Interruption Start Date and the Number of ICPs Affected. This process allows the ORS System to verify EIL have a screen dump for each Planned Interruption and that the file is named correctly (linked to the correct Operating Sequence record). This allows EIL to create a new screen capture if required, ideally before the 'Must Publish Before' 'Planned & Notified' date, so that the Interruption is entitled to the 50% reduction in SAIDI for any minutes occurring within the notification window.

### Power Outage - Manual Validation of Website data

This process is required to ensure PowerNet have an Audit record of the Power Outage web site publication. When you enter this form only new records will be shown. Click on the '1. Link' and a saved image will open that displays the Audit record. From this image please enter:

- Outage Reference Number
- The Start Date of the Interruption
- The number of customers affected.

If you unsure of any details or something seems incorrect, enter a comment into the '5. Data Question / Comment' box

After you have entered these details you can click the right arrow to move to the next record and repeat the process.

1. Link

2. Outage Reference No.

3. Interruption Window - Start Date

4. No. of customers affected

5. Data Question / Comment

NOTICE View the latest updates on our response to COVID-19

## Outage Reference No. 93952A

<b>Browser Time</b>	Mon May 29 2023 22:07:39 GMT+1200 (New Zealand Standard Time)	
<b>Published Time</b>	Mon May 29 2023 22:07:34 GMT+1200 (New Zealand Standard Time)	
<b>Interruption Window</b>	Start Date	Thursday, 29/06/2023
	Start Time	09:30 am
	Finish Date	Thursday, 29/06/2023
Alternate Day Interruption Window	Start Date	Friday, 30/06/2023
	Start Time	09:30 am
	Finish Date	Friday, 30/06/2023
Expected Duration	Finish Time	02:30 pm
	Expected Duration	05 Hour(s) 00 Minute(s)
Alternate Expected Duration		05 Hour(s) 00 Minute(s)
<b>Reason for intended interruption</b>	Network Upgrades	
<b>Outage Reference No.</b>	93952A	
<b>No. of customers affected</b>	43	
<b>Type</b>	Planned and Notified	
<b>Streets affected</b>	BOAT HARBOUR ROAD, FIRTH STREET, FORTROSE OTARA ROAD, HELENA STREET, MERSEY STREET, MORAY TERRACE, NEVA STREET	

## Unplanned Outage Recording Process

Unplanned shutdowns are recorded in PowerNet's Outage Recording System (ORS) that qualify for the recording of SAIFI & SAIDI.

Once an unplanned shutdown to customers has been established either by Scada CB tripping's or customer calls of no power an Operating Sequence (O/S) number is created with a unique number. Once an O/S has been completed and the customers power has been restored, recording of the outage in the ORS can commence.

The data is entered from the Operating Sequence into an ORS record as per the record below. Start times are recorded from either: 1st call received from a customers, Supervisory Control and Data Acquisition (Scada), trip CB time, time field operator turns off power to customers.

ORS Number: **90719** \*Op Seq#: **83962A** Linked ORS #: **90719** Fault #:  Under 1 minute:  No  Status:  Checked  Master Record

Date Off: 30/5/2023 Time Off: 21:20 Ok/Problem comment:

Linked Outages

Network: Electricity Invercargill Network  DO:

Point of Supply: Invercargill POS - EIL  Pole#:

Zone Substation: Leven Street Sub  # of A/R in last 12 mths:

Feeder: Leven St 10

Line CB:

ComCom Cause: Defective Equipment  Dt: 30/5/23 23:25

Voltage: 11kV  Upd: 31/5/23 9:47

Interruption Class: Unplanned - PowerNet  iCt: tmoce

Cable/Line: Cable  Upd: rdd

Sub LEV: Feeder 6523356 LB

Template (Ref #):

Cause Note: Suspected cable fault  → Suspected cable fault

Reason: Deterioration

Year End: 31/03/2024

**Outage Stages**

Date Off	Time Off	On	Time On	Isolation Point	Feeder	Segments	ICP's	# of ICP's	Minutes	Customer min.	
30/05	21:20	30/05	22:14	595/2	LEV 10	All	Line Segments	<input type="text"/> All <input type="text"/>	122	54	6,588
30/05	21:20	30/05	22:29	Leven St 10	LEV 10	Part	Line Segments	<input type="text"/> All <input type="text"/>	69	69	4,761
*							Line Segments	<input type="text"/>			

191 11,349

Lock: Y # of Unique ICP's:  191 Difference:  0 # of ICP's:  191 Customer min.:  11,349

This is number of unique ICP's (each ICP is only counted once for the Outage) This is that total number of ICP's from each Stage, added up.

Staged restorations to customers power supply are recorded within the same ORS recorded as above. Staged restoration times are recorded from Scada or times that are relayed to System Control Operator from a Field Operator.

If another Feeder or Substation is affected, then we may create a separate record for this and link it to the original record.

## Appendix D – SAIDI and SAIFI major events

The tables below show the normalisation of the SAIDI and SAIFI major events that took place during the assessment period, consistent with Schedule 3.2 of the 2020 DPP Determination.

Normalisation of unplanned SAIDI major events RY23					
SAIDI unplanned boundary value					4.13
1/48 <sup>th</sup> of the SAIDI unplanned boundary value	Half hour commencing	Sum SAIDI (half-hour)	Sum SAIDI (previous 24-hour)	Max SAIDI (rolling 24-hour)	SAIDI assessed value
0.086	15/07/2022 18:00	0.000	0.000	5.285	0.000
0.086	15/07/2022 18:30	0.000	0.000	5.285	0.000
0.086	15/07/2022 19:00	0.000	0.000	5.285	0.000
0.086	15/07/2022 19:30	0.000	0.000	5.285	0.000
0.086	15/07/2022 20:00	0.000	0.000	5.285	0.000
0.086	15/07/2022 20:30	0.000	0.000	5.285	0.000
0.086	15/07/2022 21:00	0.000	0.000	5.285	0.000
0.086	15/07/2022 21:30	0.000	0.000	5.285	0.000
0.086	15/07/2022 22:00	0.000	0.000	5.285	0.000
0.086	15/07/2022 22:30	0.000	0.000	5.285	0.000
0.086	15/07/2022 23:00	0.000	0.000	5.285	0.000
0.086	15/07/2022 23:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 0:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 0:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 1:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 1:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 2:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 2:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 3:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 3:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 4:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 4:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 5:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 5:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 6:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 6:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 7:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 7:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 8:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 8:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 9:00	0.000	0.000	5.285	0.000

0.086	16/07/2022 9:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 10:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 10:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 11:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 11:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 12:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 12:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 13:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 13:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 14:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 14:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 15:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 15:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 16:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 16:30	0.000	0.000	5.285	0.000
0.086	16/07/2022 17:00	0.000	0.000	5.285	0.000
0.086	16/07/2022 17:30	5.285	5.285	5.285	0.086
0.086	16/07/2022 18:00	0.000	5.285	5.285	0.000
0.086	16/07/2022 18:30	0.000	5.285	5.285	0.000
0.086	16/07/2022 19:00	0.000	5.285	5.285	0.000
0.086	16/07/2022 19:30	0.000	5.285	5.285	0.000
0.086	16/07/2022 20:00	0.000	5.285	5.285	0.000
0.086	16/07/2022 20:30	0.000	5.285	5.285	0.000
0.086	16/07/2022 21:00	0.000	5.285	5.285	0.000
0.086	16/07/2022 21:30	0.000	5.285	5.285	0.000
0.086	16/07/2022 22:00	0.000	5.285	5.285	0.000
0.086	16/07/2022 22:30	0.000	5.285	5.285	0.000
0.086	16/07/2022 23:00	0.000	5.285	5.285	0.000
0.086	16/07/2022 23:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 0:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 0:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 1:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 1:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 2:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 2:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 3:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 3:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 4:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 4:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 5:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 5:30	0.000	5.285	5.285	0.000

0.086	17/07/2022 6:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 6:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 7:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 7:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 8:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 8:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 9:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 9:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 10:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 10:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 11:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 11:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 12:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 12:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 13:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 13:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 14:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 14:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 15:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 15:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 16:00	0.000	5.285	5.285	0.000
0.086	17/07/2022 16:30	0.000	5.285	5.285	0.000
0.086	17/07/2022 17:00	0.000	5.285	5.285	0.000
		<b>5.285</b>			<b>0.086</b>

- (i) Cause; Defective equipment – cable fault
- (ii) Start date; 15/07/22
- (iii) Start time; 18:00
- (iv) End date; 17/07/22
- (v) End time; 17:00
- (vi) SAIDI before; 5.285
- (vii) SAIDI normalised; 0.086
- (viii) Location; Dee St, Montrose St, Park St, Russell St, Lewis St, Duke St, Albert St, Hollywood Lane &, Gladstone St, Herbert St, Lees St, Elm Cres, Ramrig St, Swinton St, Gladstone Tce, Sycamore St, Queens Duplicated Record, Gimblett St, Waihopai St, Wilton St, Moana St, Terrace St, Rosewood Dr, McLeod Crt, High St, Layard St, Chelmsford St, Turnbull St, Invercargill
- (ix) Equipment; RMU 610 Queens Park opp George & Cable "BE"
- (x) Response; Isolate & Off load Switching Station & Transformer 610 to other transformers
- (xi) Mitigating factors; Operating restriction due to Long & Crawford St Switching station having restriction
- (xii) Proposed mitigation; Switching station replaced with a Magnifix Switching Station. Ongoing inspections & maintenance

1/48th of the SAIDI unplanned boundary value	Half hour commencing	Sum SAIDI (half-hour)	Sum SAIDI (previous 24-hour)	Max SAIDI (rolling 24-hour)	SAIDI assessed value
0.086	2/11/2022 3:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 3:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 4:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 4:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 5:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 5:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 6:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 6:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 7:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 7:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 8:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 8:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 9:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 9:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 10:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 10:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 11:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 11:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 12:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 12:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 13:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 13:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 14:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 14:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 15:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 15:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 16:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 16:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 17:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 17:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 18:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 18:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 19:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 19:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 20:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 20:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 21:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 21:30	0.000	0.000	12.857	0.000



0.086	2/11/2022 22:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 22:30	0.000	0.000	12.857	0.000
0.086	2/11/2022 23:00	0.000	0.000	12.857	0.000
0.086	2/11/2022 23:30	0.000	0.000	12.857	0.000
0.086	3/11/2022 0:00	0.000	0.000	12.857	0.000
0.086	3/11/2022 0:30	0.000	0.000	12.857	0.000
0.086	3/11/2022 1:00	0.000	0.000	12.857	0.000
0.086	3/11/2022 1:30	0.000	0.000	12.857	0.000
0.086	3/11/2022 2:00	0.000	0.000	12.857	0.000
0.086	3/11/2022 2:30	12.857	12.857	12.857	0.086
0.086	3/11/2022 3:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 3:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 4:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 4:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 5:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 5:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 6:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 6:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 7:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 7:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 8:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 8:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 9:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 9:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 10:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 10:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 11:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 11:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 12:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 12:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 13:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 13:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 14:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 14:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 15:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 15:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 16:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 16:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 17:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 17:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 18:00	0.000	12.857	12.857	0.000

0.086	3/11/2022 18:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 19:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 19:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 20:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 20:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 21:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 21:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 22:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 22:30	0.000	12.857	12.857	0.000
0.086	3/11/2022 23:00	0.000	12.857	12.857	0.000
0.086	3/11/2022 23:30	0.000	12.857	12.857	0.000
0.086	4/11/2022 0:00	0.000	12.857	12.857	0.000
0.086	4/11/2022 0:30	0.000	12.857	12.857	0.000
0.086	4/11/2022 1:00	0.000	12.857	12.857	0.000
0.086	4/11/2022 1:30	0.000	12.857	12.857	0.000
0.086	4/11/2022 2:00	0.000	12.857	12.857	0.000
<b>12.857</b>					<b>0.086</b>

- (i) Cause; Failed 11kV cables
- (ii) Start date; 02/11/22
- (iii) Start time; 03:00
- (iv) End date; 04/11/22
- (v) End time; 02:00
- (vi) SAIDI before; 12.857
- (vii) SAIDI normalised; 0.086
- (viii) Location; Tay St, Lithgow St, Lithgow Place Rockdale Rd, Duncan St, Carlyle St, Stuart St, Perdue St Duncraig St, Fairview Ave, Majorie St, West St, St Andrew St, Arun Cres, Crawford St, Racecourse Rd, Tummel St, Derwent St, Cree St, Glengary Cres, Yarrow St, Lithgow St, Conway Cres, Carnarvon St, Trent St, Invercargill Onslow St, Tweed St, Glenalmond Cres, Oban Place, Forfar St, Thornhill St, Ash St, Kinmont Cres, Centre St, Rockdale Rd, Rothesay Place, Rannoch St, Morning Side Lane, Invercargill
- (ix) Equipment; Cables "GH" & "BR" failed during a Transpower fault
- (x) Response; Cables "GH" & "BR" faults eventually located & isolated for repair. Switching to confirm, isolate and restore customers
- (xi) Mitigating factors; Operating restrictions on some switching stations means isolation from zone substation and delays. Switching wait times due to Operating Restrictions
- (xii) Proposed mitigation; Ongoing inspection of substation equipment; and ongoing health. Analysis of underground cable fleet and VLF testing

Normalisation of unplanned SAIFI major events RY23					
SAIFI unplanned boundary value					0.0804
1/48th of the SAIFI unplanned boundary value	Half hour commencing	Sum SAIFI (half-hour)	Sum SAIFI (previous 24-hour)	Max SAIFI (rolling 24-hour)	SAIFI assessed value
0.0017	2/11/2022 3:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 3:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 4:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 4:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 5:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 5:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 6:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 6:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 7:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 7:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 8:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 8:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 9:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 9:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 10:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 10:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 11:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 11:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 12:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 12:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 13:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 13:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 14:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 14:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 15:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 15:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 16:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 16:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 17:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 17:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 18:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 18:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 19:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 19:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 20:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 20:30	0.0000	0.0000	0.1519	0.0000

0.0017	2/11/2022 21:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 21:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 22:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 22:30	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 23:00	0.0000	0.0000	0.1519	0.0000
0.0017	2/11/2022 23:30	0.0000	0.0000	0.1519	0.0000
0.0017	3/11/2022 0:00	0.0000	0.0000	0.1519	0.0000
0.0017	3/11/2022 0:30	0.0000	0.0000	0.1519	0.0000
0.0017	3/11/2022 1:00	0.0000	0.0000	0.1519	0.0000
0.0017	3/11/2022 1:30	0.0000	0.0000	0.1519	0.0000
0.0017	3/11/2022 2:00	0.0000	0.0000	0.1519	0.0000
0.0017	3/11/2022 2:30	0.1519	0.1519	0.1519	0.0017
0.0017	3/11/2022 3:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 3:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 4:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 4:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 5:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 5:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 6:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 6:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 7:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 7:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 8:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 8:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 9:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 9:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 10:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 10:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 11:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 11:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 12:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 12:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 13:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 13:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 14:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 14:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 15:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 15:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 16:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 16:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 17:00	0.0000	0.1519	0.1519	0.0000

0.0017	3/11/2022 17:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 18:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 18:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 19:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 19:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 20:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 20:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 21:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 21:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 22:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 22:30	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 23:00	0.0000	0.1519	0.1519	0.0000
0.0017	3/11/2022 23:30	0.0000	0.1519	0.1519	0.0000
0.0017	4/11/2022 0:00	0.0000	0.1519	0.1519	0.0000
0.0017	4/11/2022 0:30	0.0000	0.1519	0.1519	0.0000
0.0017	4/11/2022 1:00	0.0000	0.1519	0.1519	0.0000
0.0017	4/11/2022 1:30	0.0000	0.1519	0.1519	0.0000
0.0017	4/11/2022 2:00	0.0000	0.1519	0.1519	0.0000
		<b>0.1519</b>			<b>0.0017</b>

- (i) Cause; Failed 11kV cables
- (ii) Start date; 02/11/22
- (iii) Start time; 03:00
- (iv) End date; 04/11/22
- (v) End time; 02:00
- (vi) SAIFI before; 0.1519
- (vii) SAIFI normalised; 0.0017
- (viii) Location; Tay St, Lithgow St, Lithgow Place Rockdale Rd, Duncan St, Carlyle St, Stuart St, Purdue St Duncraig St, Fairview Ave, Majorie St, West St, St Andrew St, Arun Cres, Crawford St, Racecourse Rd, Tummel St, Derwent St, Cree St, Glengary Cres, Yarrow St, Lithgow St, Conway Cres, Carnarvon St, Trent St, Invercargill, Onslow St, Tweed St, Glenalmond Cres, Oban Place, Forfar St, Thornhill St, Ash St, Kinmont Cres, Centre St, Rockdale Rd, Rothesay Place, Rannoch St, Morning Side Lane, Invercargill
- (ix) Equipment; Cables "GH" & "BR" failed during a Transpower fault
- (x) Response; Cables "GH" & "BR" faults eventually located & isolated for repair. Switching to confirm, isolate and restore customers
- (xi) Mitigating factors; Operating restrictions on some switching stations means isolation from zone substation and delays. Switching wait times due to Operating Restrictions
- (xii) Proposed mitigation; Ongoing inspection of substation equipment; and ongoing health. Analysis of underground cable fleet and VLF testing

SAIFI unplanned boundary value					0.0804
1/48th of the SAIFI unplanned boundary value	Half hour commencing	Sum SAIFI (half-hour)	Sum SAIFI (previous 24-hour)	Max SAIFI (rolling 24-hour)	SAIFI assessed value
0.0017	5/12/2022 14:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 15:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 15:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 16:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 16:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 17:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 17:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 18:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 18:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 19:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 19:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 20:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 20:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 21:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 21:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 22:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 22:30	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 23:00	0.0000	0.0000	0.0982	0.0000
0.0017	5/12/2022 23:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 0:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 0:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 1:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 1:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 2:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 2:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 3:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 3:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 4:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 4:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 5:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 5:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 6:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 6:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 7:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 7:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 8:00	0.0000	0.0000	0.0982	0.0000

0.0017	6/12/2022 8:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 9:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 9:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 10:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 10:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 11:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 11:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 12:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 12:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 13:00	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 13:30	0.0000	0.0000	0.0982	0.0000
0.0017	6/12/2022 14:00	0.0982	0.0982	0.0982	0.0017
0.0017	6/12/2022 14:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 15:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 15:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 16:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 16:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 17:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 17:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 18:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 18:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 19:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 19:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 20:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 20:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 21:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 21:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 22:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 22:30	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 23:00	0.0000	0.0982	0.0982	0.0000
0.0017	6/12/2022 23:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 0:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 0:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 1:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 1:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 2:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 2:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 3:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 3:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 4:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 4:30	0.0000	0.0982	0.0982	0.0000

0.0017	7/12/2022 5:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 5:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 6:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 6:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 7:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 7:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 8:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 8:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 9:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 9:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 10:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 10:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 11:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 11:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 12:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 12:30	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 13:00	0.0000	0.0982	0.0982	0.0000
0.0017	7/12/2022 13:30	0.0000	0.0982	0.0982	0.0000
		<b>0.0982</b>			<b>0.0017</b>

- (i) Cause; Third party interference, broken wires
- (ii) Start date; 05/12/22
- (iii) Start time; 14:30
- (iv) End date; 07/12/22
- (v) End time; 13:30
- (vi) SAIFI before; 0.0982
- (vii) SAIFI normalised; 0.0017
- (viii) Location; Stead St, Co-Bakker Rd, Ettrick St, Annan St, Bond St, Mersey St, Tweed St, Spey St, Victoria Ave, Bill Richardson Drive, Dee St, Tay St, Yarrow St, Kelvin St, Leet St, Don St, Esk St
- (ix) Equipment; Crane contacted line and broke wires. Protection did not operate for CB 13, back up protection did operate
- (x) Response; Switch out faulty equipment and restored customers via back up supplies.
- (xi) Mitigating factors; Operating restrictions on some switching stations resulted in isolation took longer than expected
- (xii) Proposed mitigation; Protection at substation was checked and confirmed OK. Fault was close to substation



## Appendix E – Director’s certificate

### Director Certification (Clause 11.5(d))

I, Robert Datema Jamieson, being director of Electricity Invercargill Limited certify that, having made all reasonable enquiry, to the best of my knowledge and belief, the attached annual compliance statement of Electricity Invercargill 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.



**Robert Datema Jamieson**

29 June 2023



## Independent Assurance Report

To the Directors of Electricity Invercargill Limited and to the Commerce Commission on the Annual Compliance Statement for the assessment period ended 31 March 2023 as required by the Electricity Distribution Services Default Price-Quality Path Determination 2020 (Consolidated 20 May 2020)

The Auditor-General is the auditor of Electricity Invercargill Limited (the Company). The Auditor-General has appointed me, Elizabeth Adriana (Adri) Smit, using the staff and resources of PricewaterhouseCoopers, to undertake a reasonable assurance engagement, on his behalf, on whether the Annual Compliance Statement on pages 4 to 40 for the assessment period ended on 31 March 2023 has been prepared, in all material respects, in compliance with the Electricity Distribution Services Default Price-Quality Path Determination 2020 (consolidated 20 May 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 2023.

### Basis for Opinion

We conducted our engagement in accordance with the Standard on Assurance Engagements (SAE) 3100 (Revised) *Compliance Engagements* ("SAE 3100 (Revised)"), issued by the New Zealand Auditing and Assurance Standards Board. An engagement conducted in accordance with SAE 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.

### Director's Responsibilities

The Director's 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; and
- 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 2023, 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 4 to 6 and 13 to 22 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 7 to 10 and 23 to 40 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 11 to 12 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.

#### **Our Independence and Quality Control**

We complied with the Auditor-General's:

- independence and other ethical requirements, which incorporate the requirements of Professional and Ethical Standard 1 *International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand)* (PES 1) issued by the New Zealand Auditing and Assurance Standards Board; and
- quality management requirements, which incorporate Professional and Ethical Standard 3 *Quality Management for Firms that perform Audits or Reviews of Financial Statements, or other Assurance or Related Services Engagements* (PES 3) issued by the New Zealand Auditing and Assurance Standards Board. PES 3 requires our firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



The Auditor-General, and his employees, and PricewaterhouseCoopers and its partners and employees may deal with the Company on normal terms within the ordinary course of trading activities of the Company. Other than any dealings on normal terms within the ordinary course of trading activities of the Company, this engagement, the assurance engagement on the Information Disclosures, regulatory training and advisory services and the annual audit of the Company's financial statements and performance information, we have no relationship with, or interests in, the Company.

A handwritten signature in black ink, appearing to read 'Adri Smit', is written over a large, stylized, hand-drawn signature that resembles a capital letter 'A' with a horizontal line through it.

Elizabeth Adriana (Adri) Smit  
PricewaterhouseCoopers  
On behalf of the Auditor-General  
Christchurch, New Zealand  
29 June 2023