

OtagoNet Joint Venture

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

OtagoNet Joint Venture 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 OtagoNet Joint Venture 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 OtagoNet Joint Venture has complied with the wash-up amount calculation for the third assessment period.

3.2 Wash-up amount calculation

Table 1

Wash-up amount RY23		
Term	Description	Value (\$000)
Actual allowable revenue (AAR)	<i>Sum of actual net allowable revenue, actual pass-through and recoverable costs</i>	34,697
Actual revenue (AR)	<i>Sum of actual revenue from prices plus other regulated income</i>	32,612
Revenue foregone (RV)	<i>Actual net allowable revenue x (revenue reduction percentage - 20%) when revenue reduction percentage is greater than 20%, otherwise nil</i>	-
Wash-up amount	<i>AAR - AR - RV</i>	2,084

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>	29,072
Actual pass-through costs	<i>Sum of all pass-through costs that were incurred or approved by the Commission in the assessment period</i>	370
Actual recoverable costs	<i>Sum of all recoverable costs that were incurred or approved by the Commission in the assessment period</i>	5,828
Revenue wash-up drawn down amount	<i>The opening wash-up account balance of the previous period multiplied by WACC²</i>	(574)
Total actual allowable revenue (AAR)	<i>Actual net allowable revenue + actual pass-through costs and actual recoverable costs + revenue wash-up drawn down amount</i>	34,697

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>	32,695
Other regulated income	<i>Other income associated with supply of electricity distribution services</i>	(83)
Total actual revenue (AR)	<i>Sum of actual revenue from prices plus other regulated income</i>	32,612

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>	29,072
Revenue reduction percentage (RRP)	<i>1 - (actual revenue from prices / forecast revenue from prices)</i>	-0.85%
Revenue foregone (RV)	<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

OtagoNet Joint Venture 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 OtagoNet Joint Venture for the DPP regulatory period and the planned SAIDI and SAIFI assessed values for the third assessment period.

Table 5

Planned interruptions quality standard - SAIDI	
Sum of planned SAIDI assessed values ≤ Planned accumulated SAIDI limit	
Planned accumulated SAIDI limit	2,114.43
Cumulative Planned SAIDI assessed value for the first, second and third assessment period	462.40
Compliance result	Compliant

Table 6

Planned interruptions quality standard - SAIFI	
Sum of planned SAIFI assessed values ≤ Planned accumulated SAIFI limit	
Planned accumulated SAIFI limit	9.6212
Cumulative Planned SAIFI assessed value for the first, second and third assessment period	2.3612
Compliance result	Compliant

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 OtagoNet Joint Venture’s planned SAIDI, and SAIFI assessed values for the assessment period.

Table 7

Planned SAIDI assessed value RY23		
Term	Description	Value
Class B non-notified interruptions		1.24
Class B notified interruptions falling outside window		21.19
SAIDI _B	<i>Sum of Class B non-notified interruptions</i>	22.43
Class B notified interruptions falling inside window		233.39
Class B intended interruptions cancelled without notice		10.76
Class B intended interruptions cancelled with notice		-
SAIDI _N	<i>Sum of Class B notified interruptions</i>	244.15
Planned SAIDI assessed value	$SAIDI_B + (SAIDI_N/2)$	144.50

Table 8

Planned SAIFI assessed value RY23		
Term	Description	Value
Planned SAIFI assessed value	<i>Sum of Class B interruptions commencing within the assessment period</i>	0.8640

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, OtagoNet Joint Venture has complied with the unplanned interruptions quality standard.

Table 9

Unplanned interruptions quality standard RY23 - SAIDI		
Unplanned SAIDI assessed value ≤ Unplanned SAIDI limit		
Unplanned SAIDI limit		160.35
Unplanned SAIDI assessed value	<i>Sum of normalised SAIDI values for Class C interruptions commencing within the assessment period</i>	143.82
Compliance result		Compliant

Table 10

Unplanned interruptions quality standard RY23 - SAIFI		
Unplanned SAIFI assessed value ≤ Unplanned SAIFI limit		
Unplanned SAIFI limit		2.4172
Unplanned SAIFI assessed value	<i>Sum of normalised SAIFI values for Class C interruptions commencing within the assessment period</i>	1.7704
Compliance result		Compliant

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 below shows the SAIDI, and SAIFI values attributed to major events which occurred during the assessment period.

The SAIDI unplanned major event boundary value is 11.81

The SAIFI unplanned major event boundary value is 0.1776

Further information about major events is included in Appendix D.

Table 11

Unplanned SAIDI major events RY23			
Start	End	Pre-normalised unplanned SAIDI	Normalised unplanned SAIDI
21 May 2022 12:00pm	22 May 2022 13:30pm	14.034	1.071
13 June 2022 04:30am	15 June 2022 11:30am	41.144	1.550
17 July 2022 14:00pm	19 July 2022 11:00am	15.231	2.862
20 March 2023 04:30am	23 March 2023 03:30am	50.184	2.559

Unplanned SAIFI major events RY23			
Start	End	Pre-normalised unplanned SAIFI	Normalised unplanned SAIFI
13 June 2022 14:30pm	15 June 2022 03:30am	0.1961	0.0200
31 August 2022 9:30am	2 September 2022 08:30am	0.1856	0.0081

4.3 Statement of compliance with extreme event standard

As demonstrated in Table 12 below, and consistent with clause 9.9 of the 2020 DPP Determination OtagoNet Joint Venture has complied with the extreme event standard.

Table 12

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 13 below shows OtagoNet Joint Venture's quality incentive adjustment for the assessment period.

Table 13

Quality Incentive Adjustment RY23		
Term	Description	Value (\$000)
SAIDI planned adjustment	$(SAIDI_{planned, target} - SAIDI_{planned, assessed}) \times 0.5 \times IR$	(7.68)
SAIDI unplanned adjustment	$(SAIDI_{unplanned, target} - SAIDI_{unplanned, assessed}) \times IR$	(103.25)
Total adjustment	$SAIDI_{planned adjustment} + SAIDI_{unplanned adjustment}$	(110.94)
Revenue at risk	$0.02 * ANAR$	581.43
Total penalty/reward		(110.94)
67th percentile estimate of post-tax WACC		4.23%
Quality incentive adjustment		(120.52)

Table 14 below shows OtagoNet Joint Venture's quality incentive adjustment inputs consistent with Schedule 4 of the 2020 DPP Determination.

Table 14

Quality Incentive Adjustment Inputs RY23					
Term	Units	Value	Term	Units	Value
SAIDI planned interruption cap	minutes	422.89	SAIDI unplanned interruption cap	minutes	160.35
SAIDI planned interruption collar	minutes	-	SAIDI unplanned interruption collar	minutes	0
SAIDI planned interruption target	minutes	140.96	SAIDI unplanned interruption target	minutes	120.02
Planned SAIDI assessed value	minutes	144.50	Unplanned SAIDI assessed value	minutes	143.82
Incentive rate		4,339			
Actual net allowable revenue (ANAR)	\$000	29,072			
SAIDI planned interruption target	minutes	140.96	SAIDI unplanned interruption target	minutes	120.02
Minimum of the planned SAIDI cap and assessed value	minutes	144.50	Minimum of the unplanned SAIDI cap and assessed value	minutes	143.82
Planned SAIDI subject to incentive	Minutes	(3.54)	Unplanned SAIDI subject to incentive	minutes	(23.80)
Adjustment (IR x 0.5)	\$	2,170	Adjustment (IR)	\$	4,339
SAIDI planned adjustment	\$000	(7.68)	SAIDI unplanned adjustment	\$000	(103.25)

5. Transactions

OtagoNet Joint Venture 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 – Pass-through and recoverable costs

Actual Net Allowable Revenue

Table 15

Actual net allowable revenue RY23		
Term	Description	Value (\$000)
ANAR 2021/2022	Actual net allowable revenue for the year ending 2022	27,145
$(1 + \Delta CPI_{2022/23})$	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	29,072

ΔCPI_{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
ΔCPI_{2023}	7.10%		

Pass-through costs

Table 16

Actual and forecast pass-through costs RY23			
Actual pass-through costs	Actual (\$000)	Forecast (\$000)	Forecast variance (\$000)
Rates on system fixed assets	183	152	30
Commerce Act levies	94	67	28
Electricity Authority levies	82	80	2
Utilities Disputes levies	12	9	3
Total actual pass-through costs	370	308	62

Recoverable costs

Table 17

Actual and forecast recoverable costs RY23			
Actual recoverable costs	Actual (\$000)	Forecast (\$000)	Forecast variance (\$000)
IRIS incentive adjustment	(2,110)	(2,110)	-
Transmission charges	7,190	7,190	-
New investment contract charges	208	293	(85)
System operator services charges	-	-	-
Avoided transmission charges			-
Distributed generation allowance	914	914	-
Claw-back	-	-	-
Catastrophic event allowance	-	-	-
Extended reserves allowance	-	-	-
Quality incentive adjustment	(176)	(176)	-
Capex wash-up adjustment	(228)	(228)	-
Reconsideration event allowance	-	-	-
Quality standard variation engineers fee	-	-	-
Urgent project allowance	-	-	-
Fire and Emergency NZ levies	30	22	8
Innovation project allowance	-	-	-
Total actual recoverable costs	5,828	5,906	(77)

Revenue wash-up drawn down amount

Table 18

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>	(528)
Voluntary undercharging amount foregone		-
Wash-up amount 2021/22 - Voluntary undercharging amount foregone		(528)
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) ²	(574)

Table 19

Voluntary undercharging amount foregone RY21		
Term	Description	Value (\$000)
Voluntary undercharging revenue floor	Voluntary undercharging revenue floor 2020/21	29,400
Forecast revenue from prices	Forecast revenue from prices 2020/21	33,402
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 20

Voluntary undercharging revenue floor RY21		
Term	Description	Value (\$000)
Forecast allowable revenue	Forecast allowable revenue 2020-21	33,409
Voluntary undercharging threshold		0.9
Forecast allowable revenue x Voluntary undercharging threshold	Forecast allowable revenue 2020/21 multiplied by Voluntary undercharging threshold	30,068
Allowable notional revenue from prices for the previous period	Allowable notional revenue from prices 2019/20	26,727
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	29,400
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	29,400

Appendix B – Prices and quantities

Table 21 shows the actual prices and quantities for actual revenue from prices for the third assessment period.

Table 21

Actual revenue from prices RY23					
Price Category	Unit	Unit price	Actual quantity	Actual kVA	Actual revenue (\$000)
Otago Region					
Residential Standard - Fixed Price	\$/kVA/yr	51.78	6822	10	3,532
Residential Low Fixed Charge - Fixed Price	\$/day	0.30	3775	1	413
Residential Low Fixed Charge - Fixed Price	\$/day	0.30	1383	1	151
General Connection Group - Fixed Price per kVA	\$/kVA/yr	51.78	3330	18	3,143
Unmetered Loads up to 1 kVA - Fixed Charge per connection	\$/yr	204.76	82	1	17
Street Lights Fixed Price per lamp watt per annum	\$/watts/yr	0.383	135871	1	52

Variable Prices	Peak Day	Shoulder	Night	Peak	Shoulder	Night	Total Peak	Total Shoulder	Total Night
	kwh	kwh	kwh	kwh	\$/kwh	\$/kwh	\$/000	\$/000	\$/000
Residential and General	44,110,196	39,167,006	30,597,622	0.110580	0.101980	0.022800	4878	3994	698
Residential Low Fixed Charge	10,779,218	9,523,028	7,632,779	0.177862	0.173150	0.027240	1917	1649	208
Total									20,653

Price Category Individual line charge	Unit	Unit price	Actual quantity	Actual revenue (\$000)	Unit	Unit price	Actual quantity (MWh)	Actual revenue (\$000)	Actual Total revenue (\$000)
0001995995TGE58	\$/day	7581.24	1.00	2,767	\$/MWh	0.00	0.00	0.00	2,767.15
0001990133TG0E5	\$/day	1221.73	1.00	446	\$/MWh	0.00	0.00	0.00	445.93
0001990220TG58B	\$/day	1812.62	1.00	662	\$/MWh	0.00	0.00	0.00	661.61
0001090833TG6F1	\$/day	12.05	1.00	4	\$/MWh	158.53	28.04	4.45	8.85
0001120438TGE4C	\$/day	13.87	1.00	5	\$/MWh	0.00	84.86	0.00	5.06
0001230615TG210	\$/day	19.47	1.00	7	\$/MWh	24.83	315.25	7.83	14.93
0001230783TG57C	\$/day	70.93	1.00	26	\$/MWh	40.91	663.86	27.16	53.05
0001230785TG4F3	\$/day	20.99	1.00	8	\$/MWh	34.81	225.79	7.86	15.52
0001230940TG858	\$/day	88.16	1.00	32	\$/MWh	61.30	550.82	33.77	65.94
0001230990TG51A	\$/day	11.24	1.00	4	\$/MWh	106.82	27.29	2.91	7.02
0001231005TGF1B	\$/day	367.36	1.00	134	\$/MWh	44.91	2853.66	128.16	262.24
0001231172TGE88	\$/day	202.25	1.00	74	\$/MWh	33.63	2151.86	72.37	146.19
0001250655TG2ED	\$/day	9.58	1.00	3	\$/MWh	0.00	81.97	0.00	3.50
0001320515TGD9E	\$/day	7.32	1.00	3	\$/MWh	44.12	59.03	2.60	5.28
0001321124TGB82	\$/day	8.71	1.00	3	\$/MWh	0.00	91.33	0.00	3.18
0001370505TG447	\$/day	21.61	1.00	8	\$/MWh	0.00	176.18	0.00	7.89
0001370610TG0A6	\$/day	14.70	1.00	5	\$/MWh	99.93	61.93	6.19	11.55

0001401195TG9B3	\$/day	20.71	1.00	8	\$/MWh	0.00	195.90	0.00	7.56
0001450225TGAD6	\$/day	22.85	1.00	8	\$/MWh	22.44	372.59	8.36	16.70
0001450400TGCCA	\$/day	16.23	1.00	6	\$/MWh	21.17	276.47	5.85	11.78
0001452050TGB83	\$/day	11.58	1.00	4	\$/MWh	21.15	199.92	4.23	8.46
0001491270TGA81	\$/day	9.97	1.00	4	\$/MWh	49.11	71.81	3.53	7.17
0001520870TGB4E	\$/day	14.28	1.00	5	\$/MWh	39.26	135.07	5.30	10.51
0001580380TGEBF	\$/day	9.42	1.00	3	\$/MWh	107.67	32.06	3.45	6.89
0001640675TGEE6	\$/day	80.79	1.00	29	\$/MWh	0.00	271.50	0.00	29.49
0001690827TGC31	\$/day	8.81	1.00	3	\$/MWh	0.00	5.73	0.00	3.22
0001700063TGC3B	\$/day	327.48	1.00	120	\$/MWh	0.00	138.85	0.00	119.53
0001710106TGF61	\$/day	46.51	1.00	17	\$/MWh	0.00	55.49	0.00	16.97
0001710108TGCF A	\$/day	89.74	1.00	33	\$/MWh	0.00	129.55	0.00	32.75
0001730075TG635	\$/day	17.65	1.00	6	\$/MWh	0.00	73.44	0.00	6.44
0001730798TGCD6	\$/day	4.89	1.00	2	\$/MWh	0.00	0.24	0.00	1.78
0001730830TG9D2	\$/day	120.22	1.00	44	\$/MWh	0.00	572.24	0.00	43.88
0001730849TG2DE	\$/day	39.23	1.00	14	\$/MWh	0.00	77.51	0.00	14.32
0001731355TG9C3	\$/day	47.33	1.00	17	\$/MWh	0.00	144.07	0.00	17.28
0001730881TG725	\$/day	29.74	1.00	11	\$/MWh	0.00	151.13	0.00	10.86
0001731161TG536	\$/day	44.30	1.00	16	\$/MWh	0.00	171.11	0.00	16.17
0001731175TGE91	\$/day	64.46	1.00	24	\$/MWh	0.00	290.22	0.00	23.53
0001731255TG0C7	\$/day	39.36	1.00	14	\$/MWh	38.08	411.26	15.66	30.03
0001760225TG74E	\$/day	24.98	1.00	9	\$/MWh	24.01	378.06	9.08	18.20
0001760343TG035	\$/day	25.53	1.00	9	\$/MWh	28.33	353.97	10.03	19.35
0001772060TG902	\$/day	69.91	1.00	26	\$/MWh	0.00	445.92	0.00	25.52
0001772165TGD49	\$/day	25.35	1.00	9	\$/MWh	0.00	103.14	0.00	9.25
0001780560TGADB	\$/day	23.93	1.00	9	\$/MWh	0.00	164.65	0.00	8.74
0001811005TG57F	\$/day	14.71	1.00	5	\$/MWh	151.12	15.11	2.28	7.65
0001820703TGB7E	\$/day	29.12	1.00	11	\$/MWh	32.39	346.09	11.21	21.84
0001830031TGBE0	\$/day	23.88	1.00	9	\$/MWh	0.00	143.77	0.00	8.72
0001830497TGE71	\$/day	25.53	1.00	9	\$/MWh	41.82	176.95	7.40	16.72
0001830541TGBB8	\$/day	1170.45	1.00	427	\$/MWh	0.00	9172.41	0.00	427.22
0001830828TGF11	\$/day	13.10	1.00	5	\$/MWh	0.00	83.51	0.00	4.78
0001830903TG594	\$/day	15.79	1.00	6	\$/MWh	0.00	51.95	0.00	5.76
0001840612TG6CA	\$/day	34.18	1.00	12	\$/MWh	27.18	453.33	12.32	24.80
0001740775TG38E	\$/day	24.48	1.00	9	\$/MWh	57.20	112.81	6.45	15.39
0001940050TG680	\$/day	34.56	1.00	13	\$/MWh	36.11	370.25	13.37	25.98
0001940060TG178	\$/day	111.36	1.00	41	\$/MWh	34.88	1311.24	45.74	86.38
0001940090TG16F	\$/day	12.39	1.00	5	\$/MWh	36.65	133.18	4.88	9.40
0001940095TGC20	\$/day	36.37	1.00	13	\$/MWh	75.15	181.57	13.65	26.92
0001940100TG78C	\$/day	88.02	1.00	32	\$/MWh	45.25	576.10	26.07	58.20
0001940110TGD21	\$/day	29.60	1.00	11	\$/MWh	58.36	225.90	13.18	23.99
0001940350TG583	\$/day	14.35	1.00	5	\$/MWh	31.11	186.10	5.79	11.03
0001940650TG086	\$/day	44.83	1.00	16	\$/MWh	47.12	312.61	14.73	31.09
0001940905TGACE	\$/day	20.89	1.00	8	\$/MWh	30.34	233.38	7.08	14.71
0001940907TGA4B	\$/day	75.06	1.00	27	\$/MWh	53.18	526.50	28.00	55.40
0001940910TGD2C	\$/day	94.87	1.00	35	\$/MWh	26.44	1219.30	32.24	66.87
0001941000TGF28	\$/day	40.23	1.00	15	\$/MWh	37.37	416.21	15.55	30.24
0001950500TG36C	\$/day	22.65	1.00	8	\$/MWh	28.15	274.69	7.73	16.00

0001950550TGB64	\$/day	27.38	1.00	10	\$/MWh	31.14	321.38	10.01	20.00
0001950800TG664	\$/day	8.33	1.00	3	\$/MWh	54.94	37.24	2.05	5.09
0001950850TGE6C	\$/day	4.95	1.00	2	\$/MWh	211.23	8.29	1.75	3.56
0001950900TGF60	\$/day	24.93	1.00	9	\$/MWh	25.98	317.23	8.24	17.34
0001951100TGECD	\$/day	32.51	1.00	12	\$/MWh	28.46	464.25	13.21	25.08
0001951200TGDCE	\$/day	29.65	1.00	11	\$/MWh	118.89	81.23	9.66	20.48
0001951320TG99F	\$/day	24.89	1.00	9	\$/MWh	0.00	88.71	0.00	9.09
0001951350TGCC2	\$/day	2.70	1.00	1	\$/MWh	130.49	0.00	0.00	0.98
0001951500TG2CC	\$/day	47.81	1.00	17	\$/MWh	21.86	778.37	17.02	34.46
0001951600TG1CF	\$/day	15.95	1.00	6	\$/MWh	42.96	139.78	6.00	11.83
0001951750TG0C3	\$/day	22.03	1.00	8	\$/MWh	26.14	304.38	7.96	16.00
0001951790TG72C	\$/day	43.62	1.00	16	\$/MWh	46.94	346.24	16.25	32.17
0001952100TGC2D	\$/day	85.74	1.00	31	\$/MWh	53.49	540.21	28.90	60.19
0001952400TG928	\$/day	18.46	1.00	7	\$/MWh	50.12	145.45	7.29	14.03
0001952500TG02C	\$/day	68.82	1.00	25	\$/MWh	31.65	919.49	29.10	54.22
0001952510TGA81	\$/day	4.80	1.00	2	\$/MWh	0.00	49.54	0.00	1.75
0002011523TGC1A	\$/day	60.87	1.00	22	\$/MWh	0.00	251.30	0.00	22.22
0002110863TGE7B	\$/day	36.31	1.00	13	\$/MWh	29.27	428.48	12.54	25.80
0002381026TGF20	\$/day	80.67	1.00	29	\$/MWh	46.99	771.54	36.25	65.70
0002641192TGCFF	\$/day	76.93	1.00	28	\$/MWh	0.00	194.07	0.00	28.08
0002700906TGC46	\$/day	21.97	1.00	8	\$/MWh	0.00	60.20	0.00	8.02
0002751750TG11E	\$/day	45.72	1.00	17	\$/MWh	0.00	121.31	0.00	16.69
0002751765TGBA9	\$/day	7.68	1.00	3	\$/MWh	0.00	0.00	0.00	2.80
0002751767TGB2C	\$/day	35.51	1.00	13	\$/MWh	0.00	124.06	0.00	12.96
0002751838TG3F5	\$/day	26.17	1.00	10	\$/MWh	0.00	72.81	0.00	9.55
0002751847TG976	\$/day	33.84	1.00	12	\$/MWh	0.00	144.96	0.00	12.35
0002751848TG6A8	\$/day	37.18	1.00	14	\$/MWh	0.00	186.99	0.00	13.57
0002751858TGC05	\$/day	23.29	1.00	8	\$/MWh	0.00	47.26	0.00	8.50
0002781189TG85A	\$/day	11.09	1.00	4	\$/MWh	0.00	101.70	0.00	4.05
0002841699TG73F	\$/day	9.62	1.00	4	\$/MWh	0.00	81.37	0.00	3.51
0002842004TG365	\$/day	38.65	1.00	14	\$/MWh	0.00	237.46	0.00	14.11
0002871188TGFF9	\$/day	10.13	1.00	4	\$/MWh	0.00	142.22	0.00	3.70
0003752355TG409	\$/day	84.57	1.00	31	\$/MWh	0.00	516.65	0.00	30.87
0003752365TG3F1	\$/day	16.26	1.00	6	\$/MWh	35.87	175.37	6.29	12.22
0003752367TG374	\$/day	13.50	1.00	5	\$/MWh	0.00	57.10	0.00	4.93
0003752380TG404	\$/day	25.16	1.00	9	\$/MWh	0.00	141.09	0.00	9.18
0002841739TG624	\$/day	10.11	1.00	4	\$/MWh	0.00	84.01	0.00	3.69
0001730339TG48D	\$/day	21.76	1.00	8	\$/MWh	0.00	30.43	0.00	7.94
0002742401TGC51	\$/day	8.75	1.00	3	\$/MWh	33.21	97.54	3.24	6.43
0001731183TGF09	\$/day	30.66	1.00	11	\$/MWh	0.00	29.42	0.00	11.19
0001731193TG5A4	\$/day	31.02	1.00	11	\$/MWh	0.00	52.80	0.00	11.32
0001731110TGC2E	\$/day	24.10	1.00	9	\$/MWh	0.00	118.28	0.00	8.80
0002841432TGBF3	\$/day	31.77	1.00	12	\$/MWh	0.00	70.80	0.00	11.60
0001952110TG680	\$/day	67.21	1.00	25	\$/MWh	29.48	37.12	1.09	25.62
0001450001TGC8E	\$/day	53.73	1.00	20	\$/MWh	22.63	677.37	15.33	34.94
Total									\$ 7,090

Price Category	Unit	Unit price	Actual quantity	Actual kW	Actual revenue (\$000)
Lakeland Region					
Residential Fixed Charges					
LD15	\$/day	\$ 0.3000	3317.907		\$ 363.31
LM15	\$/day	\$ 0.3000	4.433		\$ 0.49
LD08	\$/day	\$ 0.1079	14.808		\$ 0.58
Standard Domestic Variable Charges					
LD24S	\$/MWh	\$ 108.40	6872.924		\$ 745.03
LD24W	\$/MWh	\$ 163.10	9967.872		\$ 1,625.76
LD20C	\$/MWh	\$ 70.40	19.505		\$ 1.37
LD16C	\$/MWh	\$ 48.00	5321.277		\$ 255.42
LD13C	\$/MWh	\$ 54.40	4.08982		\$ 0.22
LD11C	\$/MWh	\$ 31.30	3.18429		\$ 0.10
LD08C	\$/MWh	\$ 13.70	18.36984		\$ 0.25
General Fixed Charges					
LS001	\$/day	\$ 0.6754	4.751		\$ 1.17
LS002	\$/day	\$ 1.3368	1.460		\$ 0.71
LS008	\$/day	\$ 0.7690	47.444		\$ 13.32
LS015	\$/day	\$ 1.3276	182.633		\$ 88.50
LS023	\$/day	\$ 1.6756	17.636		\$ 10.79
LT028	\$/day	\$ 2.0267	0.414		\$ 0.31
LT015	\$/day	\$ 1.3276	9.364		\$ 4.54
LT024	\$/day	\$ 1.7458	18.342		\$ 11.69
LT041	\$/day	\$ 2.9396	115.175		\$ 123.58
LT069	\$/day	\$ 4.9059	45.260		\$ 81.05
LT103	\$/day	\$ 7.2936	13.000		\$ 34.61
LT138	\$/day	\$ 9.7515	3.808		\$ 13.55
LT172	\$/day	\$ 26.2473	1.915		\$ 18.35
LT207	\$/day	\$ 31.3512	4.000		\$ 45.77
LT276	\$/day	\$ 39.1379	12.000		\$ 171.42
General Control Period Demand Charges					
LS001	\$/kW/day	\$ -	4.75	0.000	\$ -
LS002	\$/kW/day	\$ -	1.46	0.000	\$ -
LS008	\$/kW/day	\$ 0.61207	47.44	1.205	\$ 12.78
LS015	\$/kW/day	\$ 0.61207	182.63	2.064	\$ 84.23
LS023	\$/kW/day	\$ 0.66717	17.64	3.684	\$ 15.82
LT028	\$/kW/day	\$ 0.66717	0.41	3.929	\$ 0.40
LT015	\$/kW/day	\$ 0.61207	9.36	1.226	\$ 2.56
LT024	\$/kW/day	\$ 0.66717	18.34	4.743	\$ 21.18
LT041	\$/kW/day	\$ 0.66717	115.18	5.474	\$ 153.52
LT069	\$/kW/day	\$ 0.66717	45.26	7.878	\$ 86.82
LT103	\$/kW/day	\$ 0.66717	13.00	17.372	\$ 54.99
LT138	\$/kW/day	\$ 0.66717	3.81	21.396	\$ 19.84
LT172	\$/kW/day	\$ 0.45272	1.92	31.205	\$ 9.87
LT207	\$/kW/day	\$ 0.45272	4.00	54.815	\$ 36.23
LT276	\$/kW/day	\$ 0.45272	12.00	55.735	\$ 110.52
Total					\$ 4,220.66

Price Category Individual line charge	Unit	Unit price	Actual quantity	Actual revenue (\$000)	Unit	Unit price	Actual quantity	Actual revenue (\$000)	Actual Total revenue (\$000)
950315LN40D	\$/day	30.26	1	11.04	\$/MWh	\$ -	-	\$ -	11.04
950320LNEBA	\$/day	34.38	1	12.55	\$/MWh	\$ -	-	\$ -	12.55
950325LN3F5	\$/day	350.63	1	127.98	\$/MWh	\$ -	-	\$ -	127.98
950330LN417	\$/day	103.55	1	37.80	\$/MWh	\$ -	-	\$ -	37.80
950335LN958	\$/day	84.56	1	30.86	\$/MWh	\$ -	-	\$ -	30.86
950934LNF17	\$/day	118.90	1	43.40	\$/MWh	\$ -	-	\$ -	43.40
959005LN103	\$/day	107.10	1	39.09	\$/MWh	\$ -	-	\$ -	39.09
952081LNAA3	\$/day	294.51	1.00	107.50	\$/MWh	\$ -	-	\$ -	107.50
959018LN4F5	\$/day	304.59	1.00	111.18	\$/MWh	\$ -	-	\$ -	111.18
9595701LN19A	\$/day	166.58	1.00	60.80	\$/MWh	\$ -	-	\$ -	60.80
9593601LND5E	\$/day	105.19	1.00	38.39	\$/MWh	\$ -	-	\$ -	38.39
9593501LNE5D	\$/day	56.44	0.24	4.85	\$/MWh	\$ -	-	\$ -	4.85
0000951901LN400	\$/day	248.24	0.64	58.09	\$/MWh	\$ -	-	\$ -	58.09
986001LN538	\$/day	133.68	1.00	48.79	\$/MWh	\$ -	-	\$ -	48.79
Total									732.33

Total actual revenue from prices	32,695
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Table 22 shows the forecast revenue from prices for the third assessment period from the price setting compliance statement.

Table 22

Forecast revenue from prices RY23	Value (\$000)
Total forecast revenue from prices	32,420

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

OtagoNet Joint Venture 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 OtagoNet Joint Venture 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’.

Operating Sequence - Add

Operating Sequence #

Planned / Unplanned

Interruption Type

Network

Station

POS

PowerNet Substation

Planned & Notified 50% SAIDI Weighting

Regular Planned 100% SAIDI Weighting

Must Publish Before

Interruption Window

Date Off Time Off Date On Time On

Alternate Date Requirement

Alt Date Off Time Off Alt Date On Time On

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

Work Purpose

Work Crew

Work detail

Project Number

Project Manager

Save Record Cancel Entry

Close Form

All of 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.

Operating Sequence detail - Planned

Operating Sequence # OS #

Interruption Type Work Crew Project Number

Network Work detail Project Manager [Show on Web Page](#)

Station [90204](#)

Work Purpose Trees, hedges, roots etc that need to be managed so they do not affect the network.

Interruption Window

Date Off Time Off Date On On **360 minutes duration**

Alternate Date Requirement

Alt Date Off Time Off Alt Date On On **360 minutes duration**

Planned & Notified 50% SAIDI Weighting

Regular Planned 100% SAIDI Weighting

Must Publish Before

Published

Confirmed

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

POS Voltage

PowerNet Substation Reason to use Alternate Date

Publish Type Complete

Show Street Names (based on ICPs)

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:

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.

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 PNL 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 # **92969** **A** Find Op Seq # **(eg 314 or 83142A)**

Interruption Type **ICP Outage** Work Crew **Palmerston Field Services**

Network **OTPO - Otago Joint Venture Network** Work detail **ISOLATE SQ048 TO CUT TREES**

Station **MERTON S/S**

Interruption Window

Date Off **Thu 06/04/2023** Time Off **9:00** Date On **Thu 06/04/2023** On **15:00**

Alternate Date Requirement **Alternate Date Available**

Alt Date Off **Thu 13/04/2023** Time Off **9:00** Alt Date On **Thu 13/04/2023** On **15:00**

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

Must Publish Before **Thu 23/03/2023** **Wed 5/04/23 9:00**

Published **Thu 30/03/23 0:36**

Confirmed **30/03/23 0:46**

Publish Type **Regular Planned** Complete **6/04/2023**

Cancelled Flg: Date Cancelled:

Type	Count	First File Date	Last	Time dif. 1st to last (mins)	elapsed time before confirm (mins)
EIEP5 File Sent	30	30/03/2023 0:36	30/03/2023 0:36	0	10
Confirms	30	30/03/2023 0:45	30/03/2023 0:46	1	0
Web Screens	1	30/03/2023 0:39	30/03/2023 0:39	0	7

Last file **30/03/2023 0:46**

ICP Cnt	OpSeq#	Check	Date Off	Note	User	Dt Stamp	OpSeqNum	OpSeqNum
22	92969A		6/04/2023		LIVANMALLANI	30/03/23 11:40	92969A	92969A

Alt Day Used Flg: **662**

Alt Day Reason:

Alt Dt Used On:

30 Tarders expected for EIEP5A Notifications

Refresh

Voltage **Standard (11kV)**

Date Completed: **6/04/2023**

Audit file Link (eg CTCT)	File Date / Time	Trader
92969A EIEP5A File Sent	30/03/2023 0:36	AMPX
92969A EIEP5A File Sent	30/03/2023 0:36	CNIR
92969A EIEP5A File Sent	30/03/2023 0:36	CTCS
92969A EIEP5A File Sent	30/03/2023 0:36	CTCT
92969A EIEP5A File Sent	30/03/2023 0:36	ECOT
92969A EIEP5A File Sent	30/03/2023 0:36	EDGE
92969A EIEP5A File Sent	30/03/2023 0:36	ELKI
92969A EIEP5A File Sent	30/03/2023 0:36	EMHT
92969A EIEP5A File Sent	30/03/2023 0:36	FLCK
92969A EIEP5A File Sent	30/03/2023 0:36	GBUG
92969A EIEP5A File Sent	30/03/2023 0:36	GENE
92969A EIEP5A File Sent	30/03/2023 0:36	GENH
92969A EIEP5A File Sent	30/03/2023 0:36	GEOL
92969A EIEP5A File Sent	30/03/2023 0:36	MEEN
92969A EIEP5A File Sent	30/03/2023 0:36	MERI
92969A EIEP5A File Sent	30/03/2023 0:36	MERX
92969A EIEP5A File Sent	30/03/2023 0:36	OCTO
92969A EIEP5A File Sent	30/03/2023 0:36	PION
92969A EIEP5A File Sent	30/03/2023 0:36	PLUS
92969A EIEP5A File Sent	30/03/2023 0:36	PPPP
92969A EIEP5A File Sent	30/03/2023 0:36	PRME
92969A EIEP5A File Sent	30/03/2023 0:36	PSNZ
92969A EIEP5A File Sent	30/03/2023 0:36	PUAT

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 OJV have a screen dump for each Planned Interruption and that the file is named correctly (linked to the correct Operating Sequence record). This allows OJV 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 that occur within the interruption 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

Browser Time	Mon May 29 2023 22:07:39 GMT+1200 (New Zealand Standard Time)	
Published Time	Mon May 29 2023 22:07:34 GMT+1200 (New Zealand Standard Time)	
Interruption Window	Start Date	Thursday, 29/06/2023
	Start Time	09:30 am
	Finish Date	Thursday, 29/06/2023
	Finish Time	02:30 pm
Expected Duration	05 Hour(s) 00 Minute(s)	
Alternate Day Interruption Window	Start Date	Friday, 30/06/2023
	Start Time	09:30 am
	Finish Date	Friday, 30/06/2023
Finish Time	02:30 pm	
Alternate Expected Duration	05 Hour(s) 00 Minute(s)	
Reason for intended interruption	Network Upgrades	
Outage Reference No.	93952A	
No. of customers affected	43	
Type	Planned and Notified	
Streets affected	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 **90879** *Op Seq# **34267A** Linked ORS # **90879** Fault # Under 1 minute No Status **Ready to Check** Master Record

Date Off **19/6/2023** Time Off **7:31** Ok/Problem comment:

Network **Otago Joint Venture Network** DO

Point of Supply **Balclutha POS (Q)** Pole#

Zone Substation **Lawrence Zone Sub (LAW) QK** # of A/R in last 12 mths **4**

Feeder **Lawrence 3**

Line CB

ComCom Cause **Cause Unknown** Dt **19/6/23 12:10**

Voltage **11kV** Upd: **19/6/23 12:23**

Interruption Class **Unplanned - PowerNet** rCr: **EC**

Cable/Line **Line** Upd: **EC**

Sub **LAW** Feeder **43426016** LB **LB** Template (Ref #):

Cause Note **Restore KQ054 tripping- nothing obvious found** Restore KQ054 tripping- nothing obvious found

Reason: **Unknown** 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.
19/06	7:31	19/06	8:49	KQ054	LAW 3	Part	Line Segments	View ICP's	All	41 X 78 = 3,198
19/06	7:31	19/06	10:16	KQ020	LAW 3	Part	Line Segments	View ICP's	All	17 X 165 = 2,805
19/06	7:31	19/06	10:43	KQ040	LAW 3	Part	Line Segments	View ICP's	All	5 X 192 = 960
19/06	7:31	19/06	10:21	KQ041	LAW 3	All	Line Segments	View ICP's	All	15 X 170 = 2,550
19/06	7:31	19/06	11:24	KQ050	LAW 3	Part	Line Segments	View ICP's	All	35 X 233 = 8,155
19/06	7:31	19/06	11:54	KQ062	LAW 3	All	Line Segments	View ICP's	All	16 X 263 = 4,208
*							Line Segments	View ICP's		
									129	21,876

Show Checked Outages Show Reported On Outages

Lock Y # of Unique ICP's Difference # of ICP's Customer min.

This is number of unique ICP's (each ICP is only counted once for the Outage) N N 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 table below shows the normalisation of the SAIDI major events that took place during the assessment period, consistent with Schedule 3.2 of the 2020 DPP Determination.

Table 23

Normalisation of unplanned SAIDI major events RY23					
SAIDI unplanned boundary value					11.81
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
0.246	21/05/2022 12:00	0.000	0.072	14.022	0.000
0.246	21/05/2022 12:30	0.000	0.072	14.034	0.000
0.246	21/05/2022 13:00	0.000	0.072	14.034	0.000
0.246	21/05/2022 13:30	0.000	0.072	14.034	0.000
0.246	21/05/2022 14:00	4.244	4.316	14.034	0.246
0.246	21/05/2022 14:30	0.000	4.316	14.034	0.000
0.246	21/05/2022 15:00	0.023	4.340	14.034	0.023
0.246	21/05/2022 15:30	0.000	4.340	14.034	0.000
0.246	21/05/2022 16:00	0.000	4.340	14.034	0.000
0.246	21/05/2022 16:30	0.562	4.902	14.034	0.246
0.246	21/05/2022 17:00	0.000	4.902	14.034	0.000
0.246	21/05/2022 17:30	0.051	4.953	14.034	0.051
0.246	21/05/2022 18:00	0.000	4.953	14.034	0.000
0.246	21/05/2022 18:30	0.000	4.953	14.034	0.000
0.246	21/05/2022 19:00	0.270	5.223	14.034	0.246
0.246	21/05/2022 19:30	0.000	5.223	14.034	0.000
0.246	21/05/2022 20:00	0.000	5.223	14.034	0.000
0.246	21/05/2022 20:30	0.000	5.223	14.034	0.000
0.246	21/05/2022 21:00	0.000	5.223	14.034	0.000
0.246	21/05/2022 21:30	0.000	5.223	14.034	0.000
0.246	21/05/2022 22:00	0.000	5.223	14.034	0.000
0.246	21/05/2022 22:30	0.000	5.223	14.034	0.000
0.246	21/05/2022 23:00	0.000	5.223	14.034	0.000
0.246	21/05/2022 23:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 0:00	0.000	5.223	14.034	0.000
0.246	22/05/2022 0:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 1:00	0.000	5.223	14.034	0.000
0.246	22/05/2022 1:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 2:00	0.000	5.223	14.034	0.000
0.246	22/05/2022 2:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 3:00	0.000	5.223	14.034	0.000
0.246	22/05/2022 3:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 4:00	0.000	5.223	14.034	0.000
0.246	22/05/2022 4:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 5:00	0.000	5.223	14.034	0.000

0.246	22/05/2022 5:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 6:00	0.000	5.223	14.034	0.000
0.246	22/05/2022 6:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 7:00	0.000	5.223	14.034	0.000
0.246	22/05/2022 7:30	0.000	5.223	14.034	0.000
0.246	22/05/2022 8:00	0.000	5.195	14.034	0.000
0.246	22/05/2022 8:30	0.000	5.195	14.034	0.000
0.246	22/05/2022 9:00	0.000	5.195	14.034	0.000
0.246	22/05/2022 9:30	0.000	5.195	14.034	0.000
0.246	22/05/2022 10:00	0.000	5.195	14.034	0.000
0.246	22/05/2022 10:30	0.000	5.195	14.034	0.000
0.246	22/05/2022 11:00	0.000	5.151	14.034	0.000
0.246	22/05/2022 11:30	8.871	14.022	14.034	0.246
0.246	22/05/2022 12:00	0.012	14.034	14.034	0.012
0.246	22/05/2022 12:30	0.000	14.034	14.034	0.000
0.246	22/05/2022 13:00	0.000	14.034	14.034	0.000
0.246	22/05/2022 13:30	0.000	14.034	14.034	0.000
		14.034			1.071

- (i) Cause; Extreme high winds, network equipment damage
- (ii) Start date; 21/05/22
- (iii) Start time; 12:00
- (iv) End date; 22/05/22
- (v) End time; 13:30
- (vi) SAIDI before; 14.034
- (vii) SAIDI normalised; 1.071
- (viii) Location; Merton, Owaka, Clydevale, Charlotte St, Ranfurly, Middlemarch, and Waipiata substations
- (ix) Equipment; Various – including:
Broken overhead LV conductor
Broken 11 kV overhead wires
Broken guywire wire
Tree on line
Broken LV fuse
- (x) Response; Isolate relevant sections. Repair and restore power
- (xi) Mitigating factors; Mostly extreme wind
- (xii) Proposed mitigation; Inspection and maintenance

Normalisation of unplanned SAIDI major events RY23					
SAIDI unplanned boundary value					11.81
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
0.246	13/06/2022 4:30	0.000	0.000	27.864	0.000
0.246	13/06/2022 5:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 5:30	0.000	0.000	28.303	0.000
0.246	13/06/2022 6:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 6:30	0.000	0.000	28.303	0.000
0.246	13/06/2022 7:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 7:30	0.000	0.000	28.303	0.000
0.246	13/06/2022 8:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 8:30	0.000	0.000	28.303	0.000
0.246	13/06/2022 9:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 9:30	0.000	0.000	28.303	0.000
0.246	13/06/2022 10:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 10:30	0.000	0.000	28.303	0.000
0.246	13/06/2022 11:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 11:30	0.000	0.000	28.303	0.000
0.246	13/06/2022 12:00	0.000	0.000	28.303	0.000
0.246	13/06/2022 12:30	0.000	0.000	33.370	0.000
0.246	13/06/2022 13:00	0.000	0.000	33.370	0.000
0.246	13/06/2022 13:30	0.107	0.107	33.370	0.107
0.246	13/06/2022 14:00	0.085	0.192	33.370	0.085
0.246	13/06/2022 14:30	0.000	0.192	40.823	0.000
0.246	13/06/2022 15:00	0.000	0.192	40.823	0.000
0.246	13/06/2022 15:30	0.000	0.192	40.823	0.000
0.246	13/06/2022 16:00	0.000	0.192	40.823	0.000
0.246	13/06/2022 16:30	0.000	0.192	40.823	0.000
0.246	13/06/2022 17:00	0.000	0.192	40.823	0.000
0.246	13/06/2022 17:30	0.000	0.192	40.951	0.000
0.246	13/06/2022 18:00	0.000	0.192	40.951	0.000
0.246	13/06/2022 18:30	0.000	0.192	40.951	0.000
0.246	13/06/2022 19:00	0.000	0.192	40.951	0.000
0.246	13/06/2022 19:30	0.459	0.651	40.951	0.246
0.246	13/06/2022 20:00	0.000	0.651	40.951	0.000
0.246	13/06/2022 20:30	0.000	0.651	40.951	0.000
0.246	13/06/2022 21:00	0.000	0.651	40.951	0.000
0.246	13/06/2022 21:30	0.000	0.651	40.951	0.000
0.246	13/06/2022 22:00	0.000	0.651	40.951	0.000
0.246	13/06/2022 22:30	0.000	0.651	40.951	0.000
0.246	13/06/2022 23:00	0.000	0.651	40.951	0.000
0.246	13/06/2022 23:30	0.000	0.651	40.951	0.000
0.246	14/06/2022 0:00	0.000	0.651	40.951	0.000
0.246	14/06/2022 0:30	0.000	0.651	40.951	0.000

0.246	14/06/2022 1:00	0.000	0.651	40.951	0.000
0.246	14/06/2022 1:30	0.000	0.651	40.951	0.000
0.246	14/06/2022 2:00	0.000	0.651	40.951	0.000
0.246	14/06/2022 2:30	0.000	0.651	40.951	0.000
0.246	14/06/2022 3:00	0.000	0.651	40.951	0.000
0.246	14/06/2022 3:30	0.000	0.651	40.951	0.000
0.246	14/06/2022 4:00	27.213	27.864	40.951	0.246
0.246	14/06/2022 4:30	0.439	28.303	40.951	0.246
0.246	14/06/2022 5:00	0.000	28.303	40.951	0.000
0.246	14/06/2022 5:30	0.000	28.303	40.951	0.000
0.246	14/06/2022 6:00	0.000	28.303	40.951	0.000
0.246	14/06/2022 6:30	0.000	28.303	40.951	0.000
0.246	14/06/2022 7:00	0.000	28.303	40.951	0.000
0.246	14/06/2022 7:30	0.000	28.303	40.951	0.000
0.246	14/06/2022 8:00	0.000	28.303	40.951	0.000
0.246	14/06/2022 8:30	0.000	28.303	40.951	0.000
0.246	14/06/2022 9:00	0.000	28.303	40.951	0.000
0.246	14/06/2022 9:30	0.000	28.303	40.951	0.000
0.246	14/06/2022 10:00	0.000	28.303	40.951	0.000
0.246	14/06/2022 10:30	0.000	28.303	40.951	0.000
0.246	14/06/2022 11:00	0.000	28.303	40.951	0.000
0.246	14/06/2022 11:30	0.000	28.303	40.951	0.000
0.246	14/06/2022 12:00	5.068	33.370	40.951	0.246
0.246	14/06/2022 12:30	0.000	33.370	40.951	0.000
0.246	14/06/2022 13:00	0.000	33.370	40.951	0.000
0.246	14/06/2022 13:30	0.000	33.263	40.951	0.000
0.246	14/06/2022 14:00	7.645	40.823	40.951	0.246
0.246	14/06/2022 14:30	0.000	40.823	40.951	0.000
0.246	14/06/2022 15:00	0.000	40.823	40.951	0.000
0.246	14/06/2022 15:30	0.000	40.823	40.951	0.000
0.246	14/06/2022 16:00	0.000	40.823	40.951	0.000
0.246	14/06/2022 16:30	0.000	40.823	40.951	0.000
0.246	14/06/2022 17:00	0.128	40.951	40.951	0.128
0.246	14/06/2022 17:30	0.000	40.951	40.951	0.000
0.246	14/06/2022 18:00	0.000	40.951	40.951	0.000
0.246	14/06/2022 18:30	0.000	40.951	40.951	0.000
0.246	14/06/2022 19:00	0.000	40.951	40.951	0.000
0.246	14/06/2022 19:30	0.000	40.492	40.492	0.000
0.246	14/06/2022 20:00	0.000	40.492	40.492	0.000
0.246	14/06/2022 20:30	0.000	40.492	40.492	0.000
0.246	14/06/2022 21:00	0.000	40.492	40.492	0.000
0.246	14/06/2022 21:30	0.000	40.492	40.492	0.000
0.246	14/06/2022 22:00	0.000	40.492	40.492	0.000
0.246	14/06/2022 22:30	0.000	40.492	40.492	0.000
0.246	14/06/2022 23:00	0.000	40.492	40.492	0.000
0.246	14/06/2022 23:30	0.000	40.492	40.492	0.000

0.246	15/06/2022 0:00	0.000	40.492	40.492	0.000
0.246	15/06/2022 0:30	0.000	40.492	40.492	0.000
0.246	15/06/2022 1:00	0.000	40.492	40.492	0.000
0.246	15/06/2022 1:30	0.000	40.492	40.492	0.000
0.246	15/06/2022 2:00	0.000	40.492	40.492	0.000
0.246	15/06/2022 2:30	0.000	40.492	40.492	0.000
0.246	15/06/2022 3:00	0.000	40.492	40.492	0.000
0.246	15/06/2022 3:30	0.000	40.492	40.492	0.000
0.246	15/06/2022 4:00	0.000	13.279	13.279	0.000
0.246	15/06/2022 4:30	0.000	12.841	12.841	0.000
0.246	15/06/2022 5:00	0.000	12.841	12.841	0.000
0.246	15/06/2022 5:30	0.000	12.841	12.841	0.000
0.246	15/06/2022 6:00	0.000	12.841	12.841	0.000
0.246	15/06/2022 6:30	0.000	12.841	12.841	0.000
0.246	15/06/2022 7:00	0.000	12.841	12.841	0.000
0.246	15/06/2022 7:30	0.000	12.841	12.841	0.000
0.246	15/06/2022 8:00	0.000	12.841	12.841	0.000
0.246	15/06/2022 8:30	0.000	12.841	12.841	0.000
0.246	15/06/2022 9:00	0.000	12.841	12.841	0.000
0.246	15/06/2022 9:30	0.000	12.841	12.841	0.000
0.246	15/06/2022 10:00	0.000	12.841	12.841	0.000
0.246	15/06/2022 10:30	0.000	12.841	12.841	0.000
0.246	15/06/2022 11:00	0.000	12.841	12.841	0.000
0.246	15/06/2022 11:30	0.000	12.841	12.841	0.000
		41.144			1.550

- (i) Cause; Extreme high winds – also includes:
Defective equipment
Third Party Interference
Vegetation
- (ii) Start date; 13/06/22
- (iii) Start time; 04:30
- (iv) End date; 15/06/22
- (v) End time; 11:30
- (vi) SAIDI before; 41.144
- (vii) SAIDI normalised; 1.550
- (viii) Location; Waihola, Lawrence, Elderlee St, Hyde, Port Molyneux, Owaka, Hills, Ranfurly, Oteruhua and Clinton substations
- (ix) Equipment; Various – including:
Broken overhead LV conductor
Blown 11 kV fuse
Tree on line
Broken cross arm
- (x) Response; Isolate relevant sections. Repair and restore power
- (xi) Mitigating factors; Mostly extreme wind
- (xii) Proposed mitigation; Inspection and scheduled maintenance

Normalisation of unplanned SAIDI major events RY23					
SAIDI unplanned boundary value					11.81
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
0.246	17/07/2022 14:00	0.000	0.000	11.959	0.000
0.246	17/07/2022 14:30	0.000	0.000	11.959	0.000
0.246	17/07/2022 15:00	0.000	0.000	11.959	0.000
0.246	17/07/2022 15:30	0.000	0.000	11.959	0.000
0.246	17/07/2022 16:00	0.008	0.008	11.959	0.008
0.246	17/07/2022 16:30	0.000	0.008	11.959	0.000
0.246	17/07/2022 17:00	0.000	0.008	12.154	0.000
0.246	17/07/2022 17:30	0.000	0.008	12.154	0.000
0.246	17/07/2022 18:00	0.000	0.008	12.154	0.000
0.246	17/07/2022 18:30	0.015	0.023	12.758	0.015
0.246	17/07/2022 19:00	0.000	0.023	12.758	0.000
0.246	17/07/2022 19:30	0.000	0.023	12.758	0.000
0.246	17/07/2022 20:00	0.000	0.023	12.758	0.000
0.246	17/07/2022 20:30	0.000	0.023	12.758	0.000
0.246	17/07/2022 21:00	0.000	0.023	13.298	0.000
0.246	17/07/2022 21:30	0.000	0.023	13.298	0.000
0.246	17/07/2022 22:00	0.000	0.023	13.310	0.000
0.246	17/07/2022 22:30	0.000	0.023	13.310	0.000
0.246	17/07/2022 23:00	0.000	0.023	13.310	0.000
0.246	17/07/2022 23:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 0:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 0:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 1:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 1:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 2:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 2:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 3:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 3:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 4:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 4:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 5:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 5:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 6:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 6:30	0.000	0.023	13.310	0.000
0.246	18/07/2022 7:00	0.000	0.023	13.310	0.000
0.246	18/07/2022 7:30	0.000	0.023	14.403	0.000
0.246	18/07/2022 8:00	0.000	0.023	14.566	0.000
0.246	18/07/2022 8:30	0.000	0.023	14.566	0.000
0.246	18/07/2022 9:00	0.000	0.023	14.566	0.000
0.246	18/07/2022 9:30	0.754	0.777	14.566	0.246
0.246	18/07/2022 10:00	2.547	3.324	14.566	0.246

0.246	18/07/2022 10:30	0.000	3.324	14.566	0.000
0.246	18/07/2022 11:00	0.000	3.324	14.566	0.000
0.246	18/07/2022 11:30	1.732	5.056	14.566	0.246
0.246	18/07/2022 12:00	0.000	5.056	14.566	0.000
0.246	18/07/2022 12:30	3.660	8.716	14.566	0.246
0.246	18/07/2022 13:00	2.799	11.514	14.566	0.246
0.246	18/07/2022 13:30	0.444	11.959	14.566	0.246
0.246	18/07/2022 14:00	0.000	11.959	14.566	0.000
0.246	18/07/2022 14:30	0.000	11.959	14.566	0.000
0.246	18/07/2022 15:00	0.000	11.959	14.566	0.000
0.246	18/07/2022 15:30	0.000	11.959	14.566	0.000
0.246	18/07/2022 16:00	0.000	11.951	14.566	0.000
0.246	18/07/2022 16:30	0.203	12.154	14.566	0.203
0.246	18/07/2022 17:00	0.000	12.154	14.566	0.000
0.246	18/07/2022 17:30	0.000	12.154	14.566	0.000
0.246	18/07/2022 18:00	0.604	12.758	14.566	0.246
0.246	18/07/2022 18:30	0.000	12.743	14.566	0.000
0.246	18/07/2022 19:00	0.000	12.743	14.566	0.000
0.246	18/07/2022 19:30	0.000	12.743	14.566	0.000
0.246	18/07/2022 20:00	0.000	12.743	14.566	0.000
0.246	18/07/2022 20:30	0.555	13.298	14.566	0.246
0.246	18/07/2022 21:00	0.000	13.298	14.566	0.000
0.246	18/07/2022 21:30	0.012	13.310	14.566	0.012
0.246	18/07/2022 22:00	0.000	13.310	14.566	0.000
0.246	18/07/2022 22:30	0.000	13.310	14.566	0.000
0.246	18/07/2022 23:00	0.000	13.310	14.566	0.000
0.246	18/07/2022 23:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 0:00	0.000	13.310	14.566	0.000
0.246	19/07/2022 0:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 1:00	0.000	13.310	14.566	0.000
0.246	19/07/2022 1:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 2:00	0.000	13.310	14.566	0.000
0.246	19/07/2022 2:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 3:00	0.000	13.310	14.566	0.000
0.246	19/07/2022 3:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 4:00	0.000	13.310	14.566	0.000
0.246	19/07/2022 4:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 5:00	0.000	13.310	14.566	0.000
0.246	19/07/2022 5:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 6:00	0.000	13.310	14.566	0.000
0.246	19/07/2022 6:30	0.000	13.310	14.566	0.000
0.246	19/07/2022 7:00	1.093	14.403	14.566	0.246
0.246	19/07/2022 7:30	0.164	14.566	14.566	0.164
0.246	19/07/2022 8:00	0.000	14.566	14.566	0.000
0.246	19/07/2022 8:30	0.000	14.566	14.566	0.000
0.246	19/07/2022 9:00	0.000	14.566	14.566	0.000

0.246	19/07/2022 9:30	0.641	14.454	14.454	0.246
0.246	19/07/2022 10:00	0.000	11.907	11.907	0.000
0.246	19/07/2022 10:30	0.000	11.907	11.907	0.000
0.246	19/07/2022 11:00	0.000	11.907	11.907	0.000
		15.231			2.862

- (i) Cause; Extreme high winds
- (ii) Start date; 17/07/22
- (iii) Start time; 14:00
- (iv) End date; 19/07/22
- (v) End time; 11:00
- (vi) SAIDI before; 15.231
- (vii) SAIDI normalised; 2.862
- (viii) Location; Clarks, Middlemarch, Waiholā, Palmerston, Merton, Waitati, Lawrence, Elderlee, North Balclutha, Clinton, Stoneburn, Owaka, Kaitangata substations
- (ix) Equipment; Failed insulators and tree contact and failed equipment
- (x) Response; Locate and repair and replace equipment
- (xi) Mitigating factors; Extreme high wind
- (xii) Proposed mitigation; Continued overhead line inspection; substation inspection; Infrared survey

Normalisation of unplanned SAIDI major events RY23					
SAIDI unplanned boundary value					11.81
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
0.246	20/03/2023 4:30	0.000	0.002	25.973	0.000
0.246	20/03/2023 5:00	0.000	0.002	25.973	0.000
0.246	20/03/2023 5:30	0.000	0.002	25.973	0.000
0.246	20/03/2023 6:00	0.000	0.002	25.973	0.000
0.246	20/03/2023 6:30	0.000	0.002	25.973	0.000
0.246	20/03/2023 7:00	0.000	0.002	26.264	0.000
0.246	20/03/2023 7:30	0.000	0.002	26.264	0.000
0.246	20/03/2023 8:00	0.000	0.002	26.264	0.000
0.246	20/03/2023 8:30	0.000	0.002	31.657	0.000
0.246	20/03/2023 9:00	0.000	0.002	31.657	0.000
0.246	20/03/2023 9:30	0.000	0.002	31.657	0.000
0.246	20/03/2023 10:00	0.000	0.002	32.202	0.000
0.246	20/03/2023 10:30	0.000	0.002	32.784	0.000
0.246	20/03/2023 11:00	0.000	0.002	32.881	0.000
0.246	20/03/2023 11:30	0.000	0.002	32.881	0.000
0.246	20/03/2023 12:00	0.000	0.002	34.336	0.000
0.246	20/03/2023 12:30	0.000	0.002	35.212	0.000
0.246	20/03/2023 13:00	0.000	0.002	35.212	0.000
0.246	20/03/2023 13:30	0.000	0.002	35.212	0.000
0.246	20/03/2023 14:00	0.000	0.002	35.212	0.000
0.246	20/03/2023 14:30	0.000	0.002	35.213	0.000
0.246	20/03/2023 15:00	0.000	0.002	35.213	0.000
0.246	20/03/2023 15:30	0.000	0.002	35.625	0.000
0.246	20/03/2023 16:00	0.000	0.002	35.625	0.000
0.246	20/03/2023 16:30	0.000	0.002	35.625	0.000
0.246	20/03/2023 17:00	0.000	0.002	35.625	0.000
0.246	20/03/2023 17:30	0.000	0.002	35.625	0.000
0.246	20/03/2023 18:00	0.000	0.002	35.625	0.000
0.246	20/03/2023 18:30	0.000	0.002	35.625	0.000
0.246	20/03/2023 19:00	0.000	0.002	35.625	0.000
0.246	20/03/2023 19:30	0.000	0.002	35.625	0.000
0.246	20/03/2023 20:00	0.000	0.002	35.625	0.000
0.246	20/03/2023 20:30	0.000	0.002	35.625	0.000
0.246	20/03/2023 21:00	0.000	0.002	35.625	0.000
0.246	20/03/2023 21:30	0.000	0.002	35.625	0.000
0.246	20/03/2023 22:00	0.000	0.000	35.625	0.000
0.246	20/03/2023 22:30	0.000	0.000	35.625	0.000
0.246	20/03/2023 23:00	0.000	0.000	35.625	0.000
0.246	20/03/2023 23:30	0.000	0.000	35.625	0.000
0.246	21/03/2023 0:00	0.000	0.000	35.625	0.000
0.246	21/03/2023 0:30	0.000	0.000	35.625	0.000

0.246	21/03/2023 1:00	0.000	0.000	35.625	0.000
0.246	21/03/2023 1:30	0.000	0.000	35.625	0.000
0.246	21/03/2023 2:00	0.000	0.000	35.625	0.000
0.246	21/03/2023 2:30	0.000	0.000	35.625	0.000
0.246	21/03/2023 3:00	0.000	0.000	35.625	0.000
0.246	21/03/2023 3:30	6.933	6.933	35.625	0.246
0.246	21/03/2023 4:00	19.041	25.973	35.625	0.246
0.246	21/03/2023 4:30	0.000	25.973	35.625	0.000
0.246	21/03/2023 5:00	0.000	25.973	35.625	0.000
0.246	21/03/2023 5:30	0.000	25.973	35.625	0.000
0.246	21/03/2023 6:00	0.000	25.973	35.625	0.000
0.246	21/03/2023 6:30	0.291	26.264	35.625	0.246
0.246	21/03/2023 7:00	0.000	26.264	35.625	0.000
0.246	21/03/2023 7:30	0.000	26.264	35.625	0.000
0.246	21/03/2023 8:00	5.393	31.657	35.625	0.246
0.246	21/03/2023 8:30	0.000	31.657	35.625	0.000
0.246	21/03/2023 9:00	0.000	31.657	35.625	0.000
0.246	21/03/2023 9:30	0.545	32.202	35.625	0.246
0.246	21/03/2023 10:00	0.582	32.784	35.625	0.246
0.246	21/03/2023 10:30	0.098	32.881	35.625	0.098
0.246	21/03/2023 11:00	0.000	32.881	35.625	0.000
0.246	21/03/2023 11:30	1.454	34.336	35.625	0.246
0.246	21/03/2023 12:00	0.876	35.212	35.625	0.246
0.246	21/03/2023 12:30	0.000	35.212	35.625	0.000
0.246	21/03/2023 13:00	0.000	35.212	35.625	0.000
0.246	21/03/2023 13:30	0.000	35.212	35.625	0.000
0.246	21/03/2023 14:00	0.001	35.213	35.625	0.001
0.246	21/03/2023 14:30	0.000	35.213	35.625	0.000
0.246	21/03/2023 15:00	0.412	35.625	35.625	0.246
0.246	21/03/2023 15:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 16:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 16:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 17:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 17:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 18:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 18:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 19:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 19:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 20:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 20:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 21:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 21:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 22:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 22:30	0.000	35.625	35.625	0.000
0.246	21/03/2023 23:00	0.000	35.625	35.625	0.000
0.246	21/03/2023 23:30	0.000	35.625	35.625	0.000

0.246	22/03/2023 0:00	0.000	35.625	35.625	0.000
0.246	22/03/2023 0:30	0.000	35.625	35.625	0.000
0.246	22/03/2023 1:00	0.000	35.625	35.625	0.000
0.246	22/03/2023 1:30	0.000	35.625	35.625	0.000
0.246	22/03/2023 2:00	0.000	35.625	35.625	0.000
0.246	22/03/2023 2:30	0.000	35.625	35.625	0.000
0.246	22/03/2023 3:00	0.000	35.625	35.625	0.000
0.246	22/03/2023 3:30	0.000	28.692	28.692	0.000
0.246	22/03/2023 4:00	14.559	24.211	24.211	0.246
0.246	22/03/2023 4:30	0.000	24.211	24.211	0.000
0.246	22/03/2023 5:00	0.000	24.211	24.211	0.000
0.246	22/03/2023 5:30	0.000	24.211	24.211	0.000
0.246	22/03/2023 6:00	0.000	24.211	24.211	0.000
0.246	22/03/2023 6:30	0.000	23.920	23.920	0.000
0.246	22/03/2023 7:00	0.000	23.920	23.920	0.000
0.246	22/03/2023 7:30	0.000	23.920	23.920	0.000
0.246	22/03/2023 8:00	0.000	18.527	18.527	0.000
0.246	22/03/2023 8:30	0.000	18.527	18.527	0.000
0.246	22/03/2023 9:00	0.000	18.527	18.527	0.000
0.246	22/03/2023 9:30	0.000	17.982	17.982	0.000
0.246	22/03/2023 10:00	0.000	17.400	17.400	0.000
0.246	22/03/2023 10:30	0.000	17.303	17.303	0.000
0.246	22/03/2023 11:00	0.000	17.303	17.303	0.000
0.246	22/03/2023 11:30	0.000	15.848	15.848	0.000
0.246	22/03/2023 12:00	0.000	14.972	14.972	0.000
0.246	22/03/2023 12:30	0.000	14.972	14.972	0.000
0.246	22/03/2023 13:00	0.000	14.972	14.972	0.000
0.246	22/03/2023 13:30	0.000	14.972	14.972	0.000
0.246	22/03/2023 14:00	0.000	14.971	14.971	0.000
0.246	22/03/2023 14:30	0.000	14.971	14.971	0.000
0.246	22/03/2023 15:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 15:30	0.000	14.559	14.559	0.000
0.246	22/03/2023 16:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 16:30	0.000	14.559	14.559	0.000
0.246	22/03/2023 17:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 17:30	0.000	14.559	14.559	0.000
0.246	22/03/2023 18:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 18:30	0.000	14.559	14.559	0.000
0.246	22/03/2023 19:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 19:30	0.000	14.559	14.559	0.000
0.246	22/03/2023 20:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 20:30	0.000	14.559	14.559	0.000
0.246	22/03/2023 21:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 21:30	0.000	14.559	14.559	0.000
0.246	22/03/2023 22:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 22:30	0.000	14.559	14.559	0.000

0.246	22/03/2023 23:00	0.000	14.559	14.559	0.000
0.246	22/03/2023 23:30	0.000	14.559	14.559	0.000
0.246	23/03/2023 0:00	0.000	14.559	14.559	0.000
0.246	23/03/2023 0:30	0.000	14.559	14.559	0.000
0.246	23/03/2023 1:00	0.000	14.559	14.559	0.000
0.246	23/03/2023 1:30	0.000	14.559	14.559	0.000
0.246	23/03/2023 2:00	0.000	14.559	14.559	0.000
0.246	23/03/2023 2:30	0.000	14.559	14.559	0.000
0.246	23/03/2023 3:00	0.000	14.559	14.559	0.000
0.246	23/03/2023 3:30	0.000	14.559	14.559	0.000
		50.184			2.559

- (i) Cause; Extreme high wind
- (ii) Start date; 20/03/23
- (iii) Start time; 04:30
- (iv) End date; 23/03/23
- (v) End time; 03:30
- (vi) SAIDI before; 50.184
- (vii) SAIDI normalised; 2.559
- (viii) Location; Charlotte St, Pukeawa, Greenfield, Hindon, Clydevale, Clarks, Finegand, Middlemarch, Port Molyneux, Waiholā, Palmerston, Merton, Waitati, Lawrence, Elderlee, North Balclutha, Becks, Clinton, Stoneburn, Owaka, Kaitangata substations,
- (ix) Equipment; Various – including:
Failed 33kV connection
Blown 11 kV fuse
Vegetation
Broken wire and cross arm
Broken poles
- (x) Response; Isolate, inspect, repair or replace
- (xi) Mitigating factors; Deterioration, extreme high wind
- (xii) Proposed mitigation; Substation inspections and infra-red surveys. Pole inspections

Normalisation of unplanned SAIFI major events RY23					
SAIFI unplanned boundary value					0.1776
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
0.0037	13/06/2022 14:30	0.0000	0.0014	0.1953	0.0000
0.0037	13/06/2022 15:00	0.0008	0.0022	0.1953	0.0008
0.0037	13/06/2022 15:30	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 16:00	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 16:30	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 17:00	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 17:30	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 18:00	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 18:30	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 19:00	0.0000	0.0022	0.1953	0.0000
0.0037	13/06/2022 19:30	0.0059	0.0080	0.1953	0.0037
0.0037	13/06/2022 20:00	0.0000	0.0080	0.1953	0.0000
0.0037	13/06/2022 20:30	0.0000	0.0080	0.1953	0.0000
0.0037	13/06/2022 21:00	0.0000	0.0080	0.1953	0.0000
0.0037	13/06/2022 21:30	0.0000	0.0080	0.1953	0.0000
0.0037	13/06/2022 22:00	0.0000	0.0080	0.1953	0.0000
0.0037	13/06/2022 22:30	0.0000	0.0080	0.1953	0.0000
0.0037	13/06/2022 23:00	0.0000	0.0080	0.1953	0.0000
0.0037	13/06/2022 23:30	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 0:00	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 0:30	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 1:00	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 1:30	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 2:00	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 2:30	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 3:00	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 3:30	0.0000	0.0080	0.1953	0.0000
0.0037	14/06/2022 4:00	0.0677	0.0757	0.1953	0.0037
0.0037	14/06/2022 4:30	0.0102	0.0859	0.1953	0.0037
0.0037	14/06/2022 5:00	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 5:30	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 6:00	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 6:30	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 7:00	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 7:30	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 8:00	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 8:30	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 9:00	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 9:30	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 10:00	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 10:30	0.0000	0.0859	0.1953	0.0000

0.0037	14/06/2022 11:00	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 11:30	0.0000	0.0859	0.1953	0.0000
0.0037	14/06/2022 12:00	0.0432	0.1291	0.1953	0.0037
0.0037	14/06/2022 12:30	0.0000	0.1291	0.1953	0.0000
0.0037	14/06/2022 13:00	0.0000	0.1291	0.1953	0.0000
0.0037	14/06/2022 13:30	0.0000	0.1291	0.1953	0.0000
0.0037	14/06/2022 14:00	0.0677	0.1953	0.1953	0.0037
0.0037	14/06/2022 14:30	0.0000	0.1953	0.1953	0.0000
0.0037	14/06/2022 15:00	0.0000	0.1946	0.1953	0.0000
0.0037	14/06/2022 15:30	0.0000	0.1946	0.1953	0.0000
0.0037	14/06/2022 16:00	0.0000	0.1946	0.1953	0.0000
0.0037	14/06/2022 16:30	0.0000	0.1946	0.1953	0.0000
0.0037	14/06/2022 17:00	0.0007	0.1953	0.1953	0.0007
0.0037	14/06/2022 17:30	0.0000	0.1953	0.1953	0.0000
0.0037	14/06/2022 18:00	0.0000	0.1953	0.1953	0.0000
0.0037	14/06/2022 18:30	0.0000	0.1953	0.1953	0.0000
0.0037	14/06/2022 19:00	0.0000	0.1953	0.1953	0.0000
0.0037	14/06/2022 19:30	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 20:00	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 20:30	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 21:00	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 21:30	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 22:00	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 22:30	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 23:00	0.0000	0.1894	0.1894	0.0000
0.0037	14/06/2022 23:30	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 0:00	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 0:30	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 1:00	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 1:30	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 2:00	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 2:30	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 3:00	0.0000	0.1894	0.1894	0.0000
0.0037	15/06/2022 3:30	0.0000	0.1894	0.1894	0.0000
		0.1961			0.0200

- (i) Cause; Extreme high winds
- (ii) Start date; 13/06/22
- (iii) Start time; 14:30
- (iv) End date; 15/06/22
- (v) End time; 3:30
- (vi) SAIFI before; 0.1961
- (vii) SAIFI normalised; 0.0200
- (viii) Location; Port Molyneaux, Merton, Owaka, Elderlee, Lawrence, Waihola, Charlotte St, Ranfurly, Clarks, Hindon, Hills Creek, Becks, Oturehura, Clinton

- (ix) Equipment; Network line and equipment
- (x) Response; Locate, isolate, repair or replace; sectionalise line where required
- (xi) Mitigating factors; Extreme high winds
- (xii) Proposed mitigation; Substation inspections and infra red surveys; pole inspections; vegetation inspections and clearance; overhead line inspections

Normalisation of unplanned SAIFI major events RY23					
SAIFI unplanned boundary value					0.1776
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
0.0037	31/08/2022 9:30	0.0000	0.0033	0.1813	0.0000
0.0037	31/08/2022 10:00	0.0002	0.0032	0.1814	0.0002
0.0037	31/08/2022 10:30	0.0000	0.0032	0.1814	0.0000
0.0037	31/08/2022 11:00	0.0003	0.0035	0.1814	0.0003
0.0037	31/08/2022 11:30	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 12:00	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 12:30	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 13:00	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 13:30	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 14:00	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 14:30	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 15:00	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 15:30	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 16:00	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 16:30	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 17:00	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 17:30	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 18:00	0.0000	0.0035	0.1814	0.0000
0.0037	31/08/2022 18:30	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 19:00	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 19:30	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 20:00	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 20:30	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 21:00	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 21:30	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 22:00	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 22:30	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 23:00	0.0000	0.0035	0.1852	0.0000
0.0037	31/08/2022 23:30	0.0000	0.0035	0.1852	0.0000
0.0037	1/09/2022 0:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 0:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 1:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 1:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 2:00	0.0000	0.0004	0.1852	0.0000

0.0037	1/09/2022 2:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 3:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 3:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 4:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 4:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 5:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 5:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 6:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 6:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 7:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 7:30	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 8:00	0.0000	0.0004	0.1852	0.0000
0.0037	1/09/2022 8:30	0.0001	0.0005	0.1852	0.0001
0.0037	1/09/2022 9:00	0.1808	0.1813	0.1852	0.0037
0.0037	1/09/2022 9:30	0.0001	0.1814	0.1852	0.0001
0.0037	1/09/2022 10:00	0.0000	0.1812	0.1852	0.0000
0.0037	1/09/2022 10:30	0.0001	0.1813	0.1852	0.0001
0.0037	1/09/2022 11:00	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 11:30	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 12:00	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 12:30	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 13:00	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 13:30	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 14:00	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 14:30	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 15:00	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 15:30	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 16:00	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 16:30	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 17:00	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 17:30	0.0000	0.1811	0.1852	0.0000
0.0037	1/09/2022 18:00	0.0041	0.1852	0.1852	0.0037
0.0037	1/09/2022 18:30	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 19:00	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 19:30	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 20:00	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 20:30	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 21:00	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 21:30	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 22:00	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 22:30	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 23:00	0.0000	0.1852	0.1852	0.0000
0.0037	1/09/2022 23:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 0:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 0:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 1:00	0.0000	0.1852	0.1852	0.0000

0.0037	2/09/2022 1:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 2:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 2:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 3:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 3:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 4:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 4:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 5:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 5:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 6:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 6:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 7:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 7:30	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 8:00	0.0000	0.1852	0.1852	0.0000
0.0037	2/09/2022 8:30	0.0000	0.1851	0.1851	0.0000
		0.1856			0.0081

- (i) Cause; Failed network equipment, blown fuses, unknown causes
- (ii) Start date; 31/08/22
- (iii) Start time; 09:30
- (iv) End date; 02/09/22
- (v) End time; 8:30
- (vi) SAIFI before; 0.1856
- (vii) SAIFI normalised; 0.0081
- (viii) Location; Waihola, Middlemarch, Lawrence, Waitati, Merton, Palmerston, Stoneburn, Redbank, Clinton, Kaitangata, Ranfurly, Paerau substations
- (ix) Equipment; Failed network equipment, blown fuses, unknown causes
- (x) Response; Locate, isolate, repair or replace; sectionalise line where required.
- (xi) Mitigating factors; Deterioration
- (xii) Proposed mitigation; Substation inspections and infra-red surveys; pole inspections.
Asset inspections

Appendix E – Director’s certificate

Director Certification (Clause 11.5(d))

I, Peter William Moynihan, being a director of a company, which is a party to the OtagoNet Joint Venture certify that, having made all reasonable enquiry, to the best of my knowledge and belief, the attached annual compliance statement of OtagoNet Joint Venture, 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 relevant requirements.



Peter William Moynihan

29 June 2023



Independent Assurance Report

To the Governing Committee of OtagoNet Joint Venture

Assurance report pursuant to Electricity Distribution Services Default Price-Quality Path Determination 2020 (consolidated 20 May 2020)

Opinion

We have undertaken a reasonable assurance engagement in respect of the compliance of OtagoNet Joint Venture (the “Joint Venture”) with the Electricity Distribution Services Default Price-Quality Path Determination 2020 consolidated 20 May 2020 (“the Determination”) in preparing the Annual Compliance Statement for the assessment period ended 31 March 2023.

In our opinion, in all material respects:

- As far as appears from an examination, the information used in the preparation of the Annual Compliance Statement has been properly extracted from the Joint Venture’s accounting and other records, and has been sourced, where appropriate, from its financial and non-financial systems; and
- The Joint Venture 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 have conducted our engagement in accordance with Standard on Assurance Engagements (SAE) 3100 (Revised) *Compliance Engagements* (“SAE 3100 (Revised)”), issued by the New Zealand Auditing and Assurance Standards Board.

We believe the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

The Governing Committee’s Responsibilities

The Governing Committee is responsible on behalf of the joint venture 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
- the identification of risks that may threaten compliance with the Determination and for such internal controls that would mitigate those risks and monitoring the Joint Venture’s ongoing compliance.

Our Independence and Quality Control

We have complied with the Professional and Ethical Standard 1 *International Code of Ethics for Assurance Practitioners (including International Independence Standards) (New Zealand)* or other professional requirements, or requirements in law or regulation, that are at least as demanding, which include independence and other requirements founded on the fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

In accordance with the Professional and Ethical Standard 3 (Amended) *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements* or other professional requirements, or requirements in law or regulation, that are at least as demanding, our firm maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards, and applicable legal and regulatory requirements.

We are independent of the Joint Venture. Our firm carries out other services for the Joint Venture in the areas of the areas of compliance with the Electricity Distribution (Information Disclosure) Determination 2012, other regulatory requirements of the Commerce Act 1986, regulatory advisory and our capacity as auditors. The provision of these other services has not impaired our independence.



Assurance Practitioner's responsibilities

Our responsibility is to express an opinion on whether the Joint Venture has complied, in all material respects, with 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 Joint venture'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.

SAE 3100 (Revised) requires that we plan and perform our procedures to obtain reasonable assurance about whether the Joint Venture has complied, in all material respects, with the Determination, in preparing the Annual Compliance Statement for the assessment period ended 31 March 2023.

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 20 of the annual Compliance Statement.

In relation to the quality standards set out 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 21 to 43 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 Joint Venture's compliance with the Determination involves performing procedures to obtain evidence about the compliance activity and controls implemented. The procedures selected depend on our judgement, including the identification and assessment of risks of material non-compliance.

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 may occur and not be detected. A reasonable assurance engagement throughout the specified period does not provide assurance on whether compliance with the determination will continue in the future.

Use of Report

This report has been prepared for the Governing Committee in accordance with of the clause 11.5 (e) of the Determination and is provided solely to assist you in establishing that compliance requirements have been met.

Our report should not be used for any other purpose. To the fullest extent permitted by law, we do not accept or assume responsibility for any reliance on this report to anyone other than the Governing Committee of the Joint Venture, as a body, or for any purpose other than that for which it was prepared.

A handwritten signature in black ink that reads 'PricewaterhouseCoopers'.

Chartered Accountants
29 June 2023

Christchurch, New Zealand