

OtagoNet Joint Venture

DEFAULT PRICE QUALITY PATH ANNUAL COMPLIANCE STATEMENT

1 April 2021 – 31 March 2022 Assessment Period

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

29 June 2022

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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 second assessment period, commencing 1 April 2021 and ending 31 March 2022.

2. Date prepared

This statement was prepared on 29 June 2022.

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 second assessment period.

3.2 Wash-up amount calculation

Table 1

Wash-up amount RY22		
Term	Description	Value (\$000)
Actual allowable revenue (AAR)	<i>Sum of actual net allowable revenue, actual pass-through and recoverable costs</i>	33,980
Actual revenue (AR)	<i>Sum of actual revenue from prices plus other regulated income</i>	33,495
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>	484

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 RY22		
Term	Description	Value (\$000)
Actual net allowable revenue (ANAR)	<i>Amount calculated in accordance with Schedule 1.6 of the Determination for the second assessment period</i>	27,145
Actual pass-through costs	<i>Sum of all pass-through costs that were incurred or approved by the Commission in the assessment period</i>	375
Actual recoverable costs	<i>Sum of all recoverable costs that were incurred or approved by the Commission in the assessment period</i>	6,460
Total actual allowable revenue (AAR)	<i>Actual net allowable revenue + actual pass-through costs and actual recoverable costs</i>	33,980

Further information supporting actual net allowable revenue, actual pass-through costs, actual recoverable costs and the pass-through balance 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 RY22		
Term	Description	Value (\$000)
Actual revenue from prices	<i>Actual prices between 1 April 2021 and 31 March 2022 multiplied by actual quantities for the assessment period</i>	33,652
Other regulated income	<i>Other income associated with supply of electricity distribution services</i>	(156)
Total actual revenue (AR)	<i>Sum of actual revenue from prices plus other regulated income</i>	33,495

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 RY22		
Term	Description	Value (\$000)
Actual net allowable revenue (ANAR)	<i>Amount calculated in accordance with Schedule 1.6 of the Determination for the second assessment period</i>	27,145
Revenue reduction percentage (RRP)	<i>1 - (actual revenue from prices / forecast revenue from prices)</i>	-1.10%
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 second 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 and second assessment period	317.90
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 and second assessment period	1.4972
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 RY22		
Term	Description	Value
Class B non-notified interruptions		11.12
Class B notified interruptions falling outside window		9.75
SAIDI _B	<i>Sum of Class B non-notified interruptions</i>	20.87
Class B notified interruptions falling inside window		205.04
Class B intended interruptions cancelled without notice		10.79
Class B intended interruptions cancelled with notice		0
SAIDI _N	<i>Sum of Class B notified interruptions</i>	215.84
Planned SAIDI assessed value	<i>SAIDI_B + (SAIDI_N/2)</i>	128.79

Table 8

Planned SAIFI assessed value RY22		
Term	Description	Value
Planned SAIFI assessed value	<i>Sum of Class B interruptions commencing within the assessment period</i>	0.7772

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 RY22 - 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>	141.82
Compliance result		Compliant

Table 10

Unplanned interruptions quality standard RY22 - 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>	2.3811
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 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 RY22			
Start	End	Pre-normalised unplanned SAIDI	Normalised unplanned SAIDI
3 April 2021 14:00	5 April 2021 9:00	15.34	2.87
13 June 2021 11:00	15 June 2021 8:00	13.19	0.54
28 June 2021 7:30	29 June 2021 7:00	12.88	1.46
11 Sept 2021 15:30	13 Sept 2021 14:30	38.90	3.99

No SAIFI unplanned major events occurred during the assessment period.

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 RY22	
<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 RY22		
Term	Description	Value (\$000)
SAIDI planned adjustment	$(SAIDI_{planned, target} - SAIDI_{planned, assessed}) \times 0.5 \times IR$	26.41
SAIDI unplanned adjustment	$(SAIDI_{unplanned, target} - SAIDI_{unplanned, assessed}) \times IR$	(94.59)
Total adjustment	<i>SAIDI planned adjustment + SAIDI unplanned adjustment</i>	(68.18)
Revenue at risk	$0.02 * ANAR$	542.90
Total penalty/reward		(68.18)
67th percentile estimate of post-tax WACC		4.23%
Quality incentive adjustment		(74.08)

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

Table 13

Quality Incentive Adjustment Inputs RY22					
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	0	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	128.79	Unplanned SAIDI assessed value	minutes	141.82
Incentive rate		4,339			
Actual net allowable revenue (ANAR)	\$000	27,145			
SAIDI planned interruption target	minutes	140.96	SAIDI unplanned interruption target	minutes	120.02
Minimum of the planned SAIDI cap and assessed value	minutes	128.79	Minimum of the unplanned SAIDI cap and assessed value	minutes	141.82
Planned SAIDI subject to incentive	Minutes	12.17	Unplanned SAIDI subject to incentive	minutes	(21.80)
Adjustment (IR x 0.5)	\$	2,170	Adjustment (IR)	\$	4,339
SAIDI planned adjustment	\$000	26.41	SAIDI unplanned adjustment	\$000	(94.59)

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 RY22		
Term	Description	Value (\$000)
ANAR 2020/21	Actual net allowable revenue for the year ending 2021	25,779
$(1 + \Delta CPI_{2021/22})$	Average change in Consumer Price Index	1.053
$(1 - X)$	Annual rate of change	1
Actual net allowable revenue (ANAR)	Actual net allowable revenue for the year ending 2022	27,145

ΔCPI_{2022}			
Numerator	Numerator	Denominator	
CPI Jun 2021	1082	CPI Jun 2020	1047
CPI Sep,2021	1106	CPI Sep,2020	1054
CPI Dec 2021	1122	CPI Dec 2020	1059
CPI Mar,2022	1142	CPI Mar 2021	1068
Total	4452	Total	4228
ΔCPI_{2022}	5.30%		

Pass-through costs

Table 16

Actual and forecast pass-through costs RY22			
Actual pass-through costs	Actual (\$000)	Forecast (\$000)	Forecast variance (\$000)
Rates on system fixed assets	167	167	0
Commerce Act levies	116	107	9
Electricity Authority levies	81	81	0
Utilities Disputes levies	11	10	1
Total actual pass-through costs	375	365	10

Recoverable costs

Table 147

Actual and forecast recoverable costs RY22			
Actual recoverable costs	Actual (\$000)	Forecast (\$000)	Forecast variance (\$000)
IRIS incentive adjustment	(1,668)	(1,457)	(211)
Transmission charges	6,804	6,804	-
New investment contract charges	275	275	-
System operator services charges	-	-	-
Avoided transmission charges	-	-	-
Distributed generation allowance	1,234	1,233	1
Claw-back	-	-	-
Catastrophic event allowance	-	-	-
Extended reserves allowance	-	-	-
Quality incentive adjustment	6	7	(0)
Capex wash-up adjustment	(222)	(222)	0
Reconsideration event allowance	-	-	-
Quality standard variation engineers fee	-	-	-
Urgent project allowance	-	-	-
Fire and Emergency NZ levies	31	22	9
Innovation project allowance	-	-	-
Total actual recoverable costs	6,460	6,663	(201)

Appendix B – Prices and quantities

Table 18 shows the actual prices and quantities for actual revenue from prices for the second assessment period.

Table 15

Actual revenue from prices RY22					
Price Category	Unit	Unit price	Actual quantity	Actual kVA	Actual revenue (\$000)
Otago Region					
Residential Standard - Fixed Price	\$/kVA/yr	56.78	6,642.99	10	\$ 3,771.60
Residential Low Fixed Charge - Fixed Price	\$/day	0.15	3,839.68	1	\$ 210.22
Residential Low Fixed Charge - Fixed Price	\$/day	0.15	1,372.17	1	\$ 75.13
General Connection Group - Fixed Price per kVA	\$/kVA/yr	56.7756	3,306.28	18	\$ 3,426.28
Unmetered Loads up to 1 kVA - Fixed Charge per connection	\$/yr	224.52	83.33	92	\$ 20.69
Street Lights Fixed Price per lamp watt per annum	\$/watts/yr	0.42	143,004.58	1	\$ 60.06
Variable Prices					
Residential and General - variable price	\$/day/kWh	0.12125	82,293,717		\$ 9,978.11
Residential and General - variable price	\$/night/kWh	0.01400	30,197,289		\$ 422.76
Residential Low Fixed Charge - variable price	\$/day/kWh	0.20280	20,680,145		\$ 4,193.98
Residential Low Fixed Charge - variable price	\$/night/kWh	0.02567	7,685,348		\$ 197.24
Total					\$ 22,356.07

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	8172.21	1.00	2,983	\$/MWh	0.00	0.00	0.00	2,982.86
0001990133TG0E5	\$/day	1184.20	1.00	432	\$/MWh	0.00	0.00	0.00	432.23
0001990220TG58B	\$/day	1686.79	1.00	616	\$/MWh	0.00	0.00	0.00	615.68
0001090833TG6F1	\$/day	10.72	1.00	4	\$/MWh	158.89	25.56	4.06	7.98
0001120438TGE4C	\$/day	17.08	1.00	6	\$/MWh	0.00	69.60	0.00	6.23
0001230615TG210	\$/day	16.50	1.00	6	\$/MWh	26.32	282.49	7.44	13.46
0001230783TG57C	\$/day	84.50	1.00	31	\$/MWh	44.50	637.22	28.36	59.20
0001230785TG4F3	\$/day	20.39	1.00	7	\$/MWh	32.90	215.06	7.08	14.52
0001230940TG858	\$/day	103.22	1.00	38	\$/MWh	66.59	553.10	36.83	74.51
0001230990TG51A	\$/day	11.79	1.00	4	\$/MWh	185.74	28.26	5.25	9.55
0001231005TGF1B	\$/day	386.80	1.00	141	\$/MWh	42.47	2836.33	120.47	261.65
0001231172TGE88	\$/day	198.12	1.00	72	\$/MWh	32.89	2181.84	71.76	144.07
0001250655TG2ED	\$/day	15.92	1.00	6	\$/MWh	0.00	84.46	0.00	5.81
0001320515TGD9E	\$/day	7.14	1.00	3	\$/MWh	41.51	60.23	2.50	5.11
0001321124TGB82	\$/day	7.83	1.00	3	\$/MWh	0.00	64.80	0.00	2.86
0001370505TG447	\$/day	22.72	1.00	8	\$/MWh	0.00	165.36	0.00	8.29
0001370610TG0A6	\$/day	15.10	1.00	6	\$/MWh	102.71	56.97	5.85	11.36
0001401195TG9B3	\$/day	22.92	1.00	8	\$/MWh	0.00	178.74	0.00	8.37
0001450225TGAD6	\$/day	22.89	1.00	8	\$/MWh	22.25	382.25	8.50	16.86
0001450400TGCCA	\$/day	15.61	1.00	6	\$/MWh	18.31	281.98	5.16	10.86
0001452050TGB83	\$/day	11.42	1.00	4	\$/MWh	20.63	198.56	4.10	8.26
0001491270TGA81	\$/day	9.67	1.00	4	\$/MWh	52.74	71.15	3.75	7.28
0001520870TGB4E	\$/day	13.25	1.00	5	\$/MWh	38.65	130.99	5.06	9.90

0001580380TGEBF	\$/day	10.97	1.00	4	\$/MWh	125.72	35.05	4.41	8.41
0001640675TGEE6	\$/day	90.51	1.00	33	\$/MWh	0.00	237.80	0.00	33.03
0001690827TGC31	\$/day	10.56	1.00	4	\$/MWh	0.00	0.00	0.00	3.85
0001700063TGC3B	\$/day	450.65	1.00	164	\$/MWh	0.00	7.63	0.00	164.49
0001710106TGF61	\$/day	51.22	1.00	19	\$/MWh	0.00	50.26	0.00	18.70
0001710108TGCFA	\$/day	100.20	1.00	37	\$/MWh	0.00	122.67	0.00	36.57
0001730075TG635	\$/day	18.43	1.00	7	\$/MWh	0.00	65.11	0.00	6.73
0001730798TGC6D6	\$/day	6.07	1.00	2	\$/MWh	0.00	0.20	0.00	2.22
0001730830TG9D2	\$/day	116.85	1.00	43	\$/MWh	0.00	659.06	0.00	42.65
0001730849TG2DE	\$/day	28.07	1.00	10	\$/MWh	0.00	78.41	0.00	10.25
0001731355TG9C3	\$/day	53.87	1.00	20	\$/MWh	0.00	162.08	0.00	19.66
0001730881TG725	\$/day	28.74	1.00	10	\$/MWh	0.00	143.06	0.00	10.49
0001731161TG536	\$/day	45.29	1.00	17	\$/MWh	0.00	193.19	0.00	16.53
0001731175TGE91	\$/day	63.78	1.00	23	\$/MWh	0.00	292.15	0.00	23.28
0001731255TG0C7	\$/day	39.95	1.00	15	\$/MWh	35.45	371.04	13.16	27.74
0001760225TG74E	\$/day	20.08	1.00	7	\$/MWh	19.88	367.54	7.31	14.64
0001760343TG035	\$/day	21.84	1.00	8	\$/MWh	32.03	347.53	11.13	19.10
0001772060TG902	\$/day	64.22	1.00	23	\$/MWh	0.00	498.19	0.00	23.44
0001772165TGD49	\$/day	26.56	1.00	10	\$/MWh	0.00	92.32	0.00	9.69
0001780560TGADB	\$/day	26.88	1.00	10	\$/MWh	0.00	161.09	0.00	9.81
0001811005TG57F	\$/day	19.42	1.00	7	\$/MWh	142.57	23.01	3.28	10.37
0001820703TGB7E	\$/day	33.20	1.00	12	\$/MWh	33.24	328.68	10.93	23.04
0001830031TGBE0	\$/day	16.95	1.00	6	\$/MWh	0.00	118.00	0.00	6.19
0001830497TGE71	\$/day	27.32	1.00	10	\$/MWh	72.21	191.06	13.80	23.77
0001830541TG8B8	\$/day	1197.48	1.00	437	\$/MWh	0.00	8121.65	0.00	437.08
0001830828TGF11	\$/day	9.13	1.00	3	\$/MWh	0.00	75.78	0.00	3.33
0001830903TG594	\$/day	8.66	1.00	3	\$/MWh	0.00	61.59	0.00	3.16
0001840612TG6CA	\$/day	33.85	1.00	12	\$/MWh	26.62	455.79	12.13	24.49
0001940050TG680	\$/day	36.83	1.00	13	\$/MWh	34.37	363.25	12.49	25.93
0001940060TG178	\$/day	138.69	1.00	51	\$/MWh	33.76	1249.61	42.19	92.81
0001940090TG16F	\$/day	13.86	1.00	5	\$/MWh	39.21	89.21	3.50	8.56
0001940095TGC20	\$/day	35.69	1.00	13	\$/MWh	62.33	184.46	11.50	24.53
0001940100TG78C	\$/day	67.00	1.00	24	\$/MWh	42.63	617.29	26.31	50.77
0001940110TGD21	\$/day	30.08	1.00	11	\$/MWh	54.94	193.00	10.60	21.58
0001940350TG583	\$/day	13.98	1.00	5	\$/MWh	32.00	169.89	5.44	10.54
0001940650TG086	\$/day	42.09	1.00	15	\$/MWh	51.76	380.03	19.67	35.03
0001940905TGACE	\$/day	17.57	1.00	6	\$/MWh	32.94	245.13	8.07	14.49
0001940907TGA4B	\$/day	72.61	1.00	27	\$/MWh	50.40	535.37	26.98	53.49
0001940910TGD2C	\$/day	115.35	1.00	42	\$/MWh	33.99	1314.38	44.68	86.78
0001941000TGF28	\$/day	33.60	1.00	12	\$/MWh	33.45	405.28	13.56	25.82
0001950500TG36C	\$/day	23.67	1.00	9	\$/MWh	27.63	289.81	8.01	16.65
0001950550TGB64	\$/day	27.09	1.00	10	\$/MWh	30.18	320.78	9.68	19.57
0001950800TG664	\$/day	7.63	1.00	3	\$/MWh	68.57	50.71	3.48	6.26
0001950850TGE6C	\$/day	6.55	1.00	2	\$/MWh	299.07	4.24	1.27	3.66
0001950900TGF60	\$/day	26.88	1.00	10	\$/MWh	27.42	351.57	9.64	19.45
0001951100TGECD	\$/day	32.50	1.00	12	\$/MWh	29.58	424.11	12.54	24.41
0001951200TGDCE	\$/day	27.68	1.00	10	\$/MWh	124.31	102.74	12.77	22.87

0001951320TG99F	\$/day	24.26	1.00	9	\$/MWh	0.00	65.10	0.00	8.85
0001951350TGCC2	\$/day	4.94	1.00	2	\$/MWh	64.98	1.39	0.09	1.89
0001951500TG2CC	\$/day	54.15	1.00	20	\$/MWh	22.80	776.89	17.72	37.48
0001951600TG1CF	\$/day	15.16	1.00	6	\$/MWh	44.30	136.57	6.05	11.58
0001951750TG0C3	\$/day	21.57	1.00	8	\$/MWh	25.69	300.94	7.73	15.60
0001951790TG72C	\$/day	37.05	1.00	14	\$/MWh	48.42	339.68	16.45	29.97
0001952100TGC2D	\$/day	72.69	1.00	27	\$/MWh	56.00	573.77	32.13	58.66
0001952400TG928	\$/day	16.50	1.00	6	\$/MWh	49.66	134.69	6.69	12.71
0001952500TG02C	\$/day	61.46	1.00	22	\$/MWh	33.80	850.39	28.74	51.18
0001952510TGA81	\$/day	4.85	1.00	2	\$/MWh	0.00	74.96	0.00	1.77
0002011523TGC1A	\$/day	70.65	1.00	26	\$/MWh	0.00	222.16	0.00	25.79
0002110863TGE7B	\$/day	33.10	1.00	12	\$/MWh	29.67	428.89	12.72	24.80
0002381026TGF20	\$/day	95.41	1.00	35	\$/MWh	48.18	651.46	31.39	66.21
0002641192TGCFF	\$/day	74.98	1.00	27	\$/MWh	0.00	216.99	0.00	27.37
0002700906TGC46	\$/day	16.47	1.00	6	\$/MWh	0.00	42.40	0.00	6.01
0002751750TG11E	\$/day	48.22	1.00	18	\$/MWh	0.00	144.70	0.00	17.60
0002751765TGBA9	\$/day	14.13	1.00	5	\$/MWh	0.00	0.00	0.00	5.16
0002751767TGB2C	\$/day	47.53	1.00	17	\$/MWh	0.00	85.63	0.00	17.35
0002751838TG3F5	\$/day	28.45	1.00	10	\$/MWh	0.00	88.36	0.00	10.38
0002751847TG976	\$/day	36.53	1.00	13	\$/MWh	0.00	139.34	0.00	13.33
0002751848TG6A8	\$/day	39.92	1.00	15	\$/MWh	0.00	178.56	0.00	14.57
0002751858TGC05	\$/day	23.77	1.00	9	\$/MWh	0.00	56.76	0.00	8.68
0002781189TG85A	\$/day	13.85	1.00	5	\$/MWh	0.00	104.74	0.00	5.06
0002841699TG73F	\$/day	12.23	1.00	4	\$/MWh	0.00	78.56	0.00	4.46
0002842004TG365	\$/day	38.18	1.00	14	\$/MWh	0.00	243.61	0.00	13.94
0002871188TGFF9	\$/day	8.05	1.00	3	\$/MWh	0.00	124.59	0.00	2.94
0003752355TG409	\$/day	82.55	1.00	30	\$/MWh	0.00	508.80	0.00	30.13
0003752365TG3F1	\$/day	17.61	1.00	6	\$/MWh	37.73	158.41	5.98	12.40
0003752367TG374	\$/day	11.99	1.00	4	\$/MWh	0.00	64.11	0.00	4.38
0003752380TG404	\$/day	26.39	1.00	10	\$/MWh	0.00	116.25	0.00	9.63
0002841739TG624	\$/day	13.96	1.00	5	\$/MWh	0.00	105.95	0.00	5.10
0001730339TG48D	\$/day	22.03	1.00	8	\$/MWh	0.00	37.82	0.00	8.04
0002742401TGC51	\$/day	8.17	1.00	3	\$/MWh	30.28	94.54	2.86	5.85
0001731183TGF09	\$/day	30.89	1.00	11	\$/MWh	0.00	24.44	0.00	11.28
0001731193TG5A4	\$/day	31.30	1.00	11	\$/MWh	0.00	61.18	0.00	11.43
0001731110TGC2E	\$/day	24.20	1.00	9	\$/MWh	0.00	91.01	0.00	8.83
0002841432TGBF3	\$/day	31.91	1.00	12	\$/MWh	0.00	77.08	0.00	11.65
0001740775TG38E	\$/day	24.47	0.83	7	\$/MWh	57.18	47.20	2.70	10.14
Generator	\$/day	936.15	1.00	342	\$/MWh	0.00	0.00	0.00	341.69
Total									\$ 7,276.69

Price Category	Unit	Unit price	Actual quantity	Actual kW	Actual revenue (\$000)
Lakeland Region					
Residential Fixed Charges					
LD15	\$/day	\$ 0.1500	2709.230		\$ 148.33
LM15	\$/day	\$ 0.1500	4.868		\$ 0.27
LD08	\$/day	\$ 0.0432	15.304		\$ 0.24
Standard Domestic Variable Charges					
LD24S	\$/MWh	\$ 108.40	5623.057		\$ 609.54
LD24W	\$/MWh	\$ 163.10	8244.567		\$ 1,344.69
LD20C	\$/MWh	\$ 74.10	26.738		\$ 1.98
LD16C	\$/MWh	\$ 45.70	4683.330		\$ 214.03
LD13C	\$/MWh	\$ 54.40	6.29444		\$ 0.34
LD11C	\$/MWh	\$ 31.30	3.16056		\$ 0.10
LD08C	\$/MWh	\$ 13.70	-0.3672		-\$ 0.01
General Fixed Charges					
LS001	\$/day	\$ 0.6432	4.000		\$ 0.94
LS002	\$/day	\$ 1.2731	1.008		\$ 0.47
LS008	\$/day	\$ 0.7324	45.663		\$ 12.21
LS015	\$/day	\$ 1.2644	153.268		\$ 70.73
LS023	\$/day	\$ 1.5958	14.342		\$ 8.35
LT028	\$/day	\$ 1.9302	0.132		\$ 0.09
LT015	\$/day	\$ 1.2644	8.403		\$ 3.88
LT024	\$/day	\$ 1.6627	18.438		\$ 11.19
LT041	\$/day	\$ 2.7996	104.438		\$ 106.72
LT069	\$/day	\$ 4.6723	42.132		\$ 71.85
LT103	\$/day	\$ 6.9463	12.751		\$ 32.33
LT138	\$/day	\$ 9.2871	3.173		\$ 10.75
LT172	\$/day	\$ 24.9974	1.838		\$ 16.77
LT207	\$/day	\$ 29.8583	3.956		\$ 43.12
LT276	\$/day	\$ 37.2742	11.732		\$ 159.61
General Control Period Demand Charges					
LS001	\$/kW/day	\$ -	4.00	0.000	\$ -
LS002	\$/kW/day	\$ -	1.01	0.000	\$ -
LS008	\$/kW/day	\$ 0.58292	45.66	1.289	\$ 12.52
LS015	\$/kW/day	\$ 0.58292	153.27	2.200	\$ 71.76
LS023	\$/kW/day	\$ 0.63540	14.34	3.680	\$ 12.24
LT028	\$/kW/day	\$ 0.63540	0.13	0.917	\$ 0.03
LT015	\$/kW/day	\$ 0.58292	8.40	1.583	\$ 2.83
LT024	\$/kW/day	\$ 0.63540	18.44	4.804	\$ 20.54
LT041	\$/kW/day	\$ 0.63540	104.44	5.586	\$ 135.31
LT069	\$/kW/day	\$ 0.63540	42.13	8.242	\$ 80.54
LT103	\$/kW/day	\$ 0.63540	12.75	17.188	\$ 50.83
LT138	\$/kW/day	\$ 0.63540	3.17	21.078	\$ 15.51
LT172	\$/kW/day	\$ 0.43116	1.84	41.495	\$ 12.00
LT207	\$/kW/day	\$ 0.43116	3.96	57.105	\$ 35.55
LT276	\$/kW/day	\$ 0.43116	11.73	61.921	\$ 114.32
Total					\$ 3,432.50

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	34.45	1	12.57	\$/MWh	\$ -	-	\$ -	12.57
950320LNEBA	\$/day	35.59	1	12.99	\$/MWh	\$ -	-	\$ -	12.99
950325LN3F5	\$/day	326.21	1	119.07	\$/MWh	\$ -	-	\$ -	119.07
950330LN417	\$/day	99.24	1	36.22	\$/MWh	\$ -	-	\$ -	36.22
950335LN958	\$/day	79.65	1	29.07	\$/MWh	\$ -	-	\$ -	29.07
950934LNF17	\$/day	103.16	1	37.65	\$/MWh	\$ -	-	\$ -	37.65
959005LN103	\$/day	106.22	1	38.77	\$/MWh	\$ -	-	\$ -	38.77
952081LNAA3	\$/day	228.62	0.537	44.81	\$/MWh	\$ -	-	\$ -	44.81
952081LNAA3	\$/day	278.79	0.463	47.11	\$/MWh	\$ -	-	\$ -	47.11
959018LN4F5	\$/day	288.70	1.000	105.38	\$/MWh	\$ -	-	\$ -	105.38
0009595701LN19A	\$/day	161.80	0.641	37.86	\$/MWh	\$ -	-	\$ -	37.86
0009593601LND5E	\$/day	101.94	0.981	36.49	\$/MWh	\$ -	-	\$ -	36.49
0009593501LNE5D	\$/day	54.77	0.753	15.06	\$/MWh	\$ -	-	\$ -	15.06
0000986001LN538	\$/day	86.61	0.427	13.51	\$/MWh	\$ -	-	\$ -	13.51
Total									586.57

Total actual revenue from prices	33,652
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Table 19 shows the forecast revenue from prices for the second assessment period from the price setting compliance statement.

Table 16

Forecast revenue from prices RY22	Value (\$000)
Total forecast revenue from prices	33,285

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'.

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 work days 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.

Planned / Unplanned	Planned Interruption							
Interruption Type	ICP Outage							
Network	ELIN - Electricity Invercargill Network							
Station	DOON ST S/S							
POS	Invercargill POS - EIL							
PowerNet Substation	Doon Street Sub							
	Planned & Notified 50% SAIDI Weighting		Regular Planned 100% SAIDI Weighting					
	Must Publish Before		Fri 7/05/2021					
			Sat 22/05/21 8:00					
Interruption Window								
Date Off	Sun 23/05/2021	Time Off	8:00	Date On	Sun 23/05/2021	Time On	11:30	210 minutes duration
Alternate Date Requirement	Alternate Date Available							Dur Calc - 210
Alt Date Off	Sun 30/05/2021	Time Off	9:00	Alt Date On	Sun 30/05/2021	Time On	11:00	120 minutes duration
<input checked="" type="checkbox"/> Interruption expected to be for full duration of the Interruption Window (remove the tick to enter a reduced duration)								

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.

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)

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.

The screenshot displays the 'Operating Sequence # 78627 A' interface. Key sections include:

- Interruption Type:** ICP Outage
- Work Crew:** Gore Field Services
- Network:** TPCO - The Power Company Network
- Station:** GLENHAM S/S
- Work detail:** Replace TX 182/22/02
- Interruption Window:**
 - Date Off: Thu 25/02/2021, Time Off: 9:30, Date On: Thu 25/02/2021, On: 15:30
 - Alternate Date Requirement: Alternate Date Available
 - Alt Date Off: Fri 26/02/2021, Time Off: 9:30, Alt Date On: Fri 26/02/2021, On: 15:30
- Must Publish Before:**
 - Planned & Notified (50% SAIDI Weighting): Thu 11/02/2021
 - Regular Planned (100% SAIDI Weighting): Wed 24/02/21 9:30
- Published:** Tue 2/02/2021
- Confirmed:** 4/02/21 14:33
- Publish Type:** Planned and Notified
- Complete:** 25/02/2021
- Cancelled Flg:** []
- Date Cancelled:** []

Type	Count	First File Date	Last	Time dif. 1st to last (mins)	elapsed time before confirm (mins)
EIEP5 File Sent	25	03/02/2021 11:47	03/02/2021 11:47	0	1,606
AKE	25	03/02/2021 12:44	03/02/2021 12:44	0	1,549
Confirms	25	03/02/2021 12:44	03/02/2021 12:44	0	1,549
Web Screens	1	04/02/2021 14:33	04/02/2021 14:33	0	0

Audit file Link (eg CTCT) Table:

Audit file Link (eg CTCT)	File Date / Time	Trader
78627A EIEP5A File Sent	03/02/2021 11:47	CTCS
78627A EIEP5A File Sent	03/02/2021 11:47	CTCT
78627A EIEP5A File Sent	03/02/2021 11:47	ECOT
78627A EIEP5A File Sent	03/02/2021 11:47	ELKI
78627A EIEP5A File Sent	03/02/2021 11:47	EMHT
78627A EIEP5A File Sent	03/02/2021 11:47	FLCK
78627A EIEP5A File Sent	03/02/2021 11:47	GBUG
78627A EIEP5A File Sent	03/02/2021 11:47	GENE
78627A EIEP5A File Sent	03/02/2021 11:47	GENH
78627A EIEP5A File Sent	03/02/2021 11:47	GEOL
78627A EIEP5A File Sent	03/02/2021 11:47	MEEN
78627A EIEP5A File Sent	03/02/2021 11:47	MERI
78627A EIEP5A File Sent	03/02/2021 11:47	MERX
78627A EIEP5A File Sent	03/02/2021 11:47	PION
78627A EIEP5A File Sent	03/02/2021 11:47	PLUS
78627A EIEP5A File Sent	03/02/2021 11:47	PPPP
78627A EIEP5A File Sent	03/02/2021 11:47	PRME
78627A EIEP5A File Sent	03/02/2021 11:47	PSNZ
78627A EIEP5A File Sent	03/02/2021 11:47	PUNZ
78627A EIEP5A File Sent	03/02/2021 11:47	SELS
78627A EIEP5A File Sent	03/02/2021 11:47	SIMP
78627A EIEP5A File Sent	03/02/2021 11:47	SWCH
78627A EIEP5A File Sent	03/02/2021 11:47	TODD
78627A EIEP5A File Sent	03/02/2021 11:47	TRUS
78627A EIEP5A File Sent	03/02/2021 11:47	YESP
78627A Registry Hub Confirm File	03/02/2021 12:44	CTCS

Alt Day Used Flg: 662

Alt Day Reason: []

Alt Dt Used On: []

Buttons: Refresh, Show Current Month, Show Manual File Log Check Variations

In addition to these processes, PowerNet Limited Administration Reception Staff currently view each Web Site Screen Capture File 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;

1. Outage Reference Number
2. The Start Date of the Interruption
3. The number of customers affected.

If you are 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



Form is now Read Only

- Close it and Open it again to continue updating records.

2021-04-30 08-53 80233A.png - Windows Photo Viewer

File Print E-mail Burn Open

PowerNet Planned Outage Unplanned Outage

Click here for the latest updates on our response to COVID-19

Power Outage

Outage Reference No. 80233A

Browser Time: Fri Apr 30 2021 08:53:39 GMT+1200 (New Zealand Standard Time)
 Published Time: Fri Apr 30 2021 08:53:39 GMT+1200 (New Zealand Standard Time)

Information

Start Date	Thursday, 27/05/2021
Start Time	10:20 pm
Finish Date	Fri May 28/05/2021
Finish Time	09:00 am
Expected Duration	09 Hours 39 Minutes

Reason for Outage

Network Maintenance

Outage Reference No. 80233A

No. of customers affected 86

Type Planned and Notified

Route ADAM STREET CHOISING STREET EDWARD STREET ELDEREE STREET HIGH STREET JONHONIA STGE
 GARDNER STREET HILL STREET MOUNTAINVIEW MELBURN STREET OSBORN STREET QUEEN STREET SPIN
 STREETA 100/100 STREET

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 170

Normalisation of unplanned SAIDI major events RY22					
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	3/04/2021 14:00	0.00	0.00	12.57	0.00
0.246	3/04/2021 14:30	0.03	0.03	12.57	0.03
0.246	3/04/2021 15:00	0.00	0.03	13.31	0.00
0.246	3/04/2021 15:30	0.00	0.03	13.85	0.00
0.246	3/04/2021 16:00	0.00	0.03	13.85	0.00
0.246	3/04/2021 16:30	0.00	0.03	13.85	0.00
0.246	3/04/2021 17:00	0.00	0.03	13.85	0.00
0.246	3/04/2021 17:30	0.00	0.03	13.86	0.00
0.246	3/04/2021 18:00	0.00	0.03	13.86	0.00
0.246	3/04/2021 18:30	0.00	0.03	13.86	0.00
0.246	3/04/2021 19:00	0.00	0.03	13.86	0.00
0.246	3/04/2021 19:30	0.00	0.03	13.86	0.00
0.246	3/04/2021 20:00	0.00	0.03	13.86	0.00
0.246	3/04/2021 20:30	0.00	0.03	13.86	0.00
0.246	3/04/2021 21:00	0.00	0.03	13.86	0.00
0.246	3/04/2021 21:30	0.00	0.03	13.86	0.00
0.246	3/04/2021 22:00	0.00	0.03	13.86	0.00
0.246	3/04/2021 22:30	0.00	0.03	13.98	0.00
0.246	3/04/2021 23:00	0.00	0.03	13.98	0.00
0.246	3/04/2021 23:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 0:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 0:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 1:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 1:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 2:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 2:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 3:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 3:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 4:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 4:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 5:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 5:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 6:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 6:30	0.00	0.03	13.98	0.00
0.246	4/04/2021 7:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 7:30	0.00	0.03	13.98	0.00

0.246	4/04/2021 8:00	0.00	0.03	13.98	0.00
0.246	4/04/2021 8:30	0.48	0.51	13.98	0.25
0.246	4/04/2021 9:00	0.96	1.48	13.98	0.25
0.246	4/04/2021 9:30	5.53	7.00	13.98	0.25
0.246	4/04/2021 10:00	0.00	7.00	13.98	0.00
0.246	4/04/2021 10:30	0.00	7.00	13.98	0.00
0.246	4/04/2021 11:00	0.00	7.00	13.98	0.00
0.246	4/04/2021 11:30	1.17	8.18	13.98	0.25
0.246	4/04/2021 12:00	1.71	9.89	13.98	0.25
0.246	4/04/2021 12:30	0.47	10.36	13.98	0.25
0.246	4/04/2021 13:00	0.30	10.66	13.98	0.25
0.246	4/04/2021 13:30	1.91	12.57	13.98	0.25
0.246	4/04/2021 14:00	0.00	12.57	13.98	0.00
0.246	4/04/2021 14:30	0.77	13.31	13.98	0.25
0.246	4/04/2021 15:00	0.54	13.85	13.98	0.25
0.246	4/04/2021 15:30	0.00	13.85	13.98	0.00
0.246	4/04/2021 16:00	0.00	13.85	13.98	0.00
0.246	4/04/2021 16:30	0.00	13.85	13.98	0.00
0.246	4/04/2021 17:00	0.01	13.86	13.98	0.01
0.246	4/04/2021 17:30	0.00	13.86	13.98	0.00
0.246	4/04/2021 18:00	0.00	13.86	13.98	0.00
0.246	4/04/2021 18:30	0.00	13.86	13.98	0.00
0.246	4/04/2021 19:00	0.00	13.86	13.98	0.00
0.246	4/04/2021 19:30	0.00	13.86	13.98	0.00
0.246	4/04/2021 20:00	0.00	13.86	13.98	0.00
0.246	4/04/2021 20:30	0.00	13.86	13.98	0.00
0.246	4/04/2021 21:00	0.00	13.86	13.98	0.00
0.246	4/04/2021 21:30	0.00	13.86	13.98	0.00
0.246	4/04/2021 22:00	0.12	13.98	13.98	0.12
0.246	4/04/2021 22:30	0.00	13.98	13.98	0.00
0.246	4/04/2021 23:00	0.00	13.98	13.98	0.00
0.246	4/04/2021 23:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 0:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 0:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 1:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 1:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 2:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 2:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 3:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 3:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 4:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 4:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 5:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 5:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 6:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 6:30	0.00	13.98	13.98	0.00

0.246	5/04/2021 7:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 7:30	0.00	13.98	13.98	0.00
0.246	5/04/2021 8:00	0.00	13.98	13.98	0.00
0.246	5/04/2021 8:30	0.00	13.50	13.87	0.00
0.246	5/04/2021 9:00	1.33	13.87	13.87	0.25
TOTAL		15.34			2.87

- (i) Cause; Mostly Adverse Weather – also includes:
Defective equipment
Third Party Interference
Vegetation
- (ii) Start date; 03/04/21
- (iii) Start time; 14:00
- (iv) End date; 05/04/21
- (v) End time; 09:00
- (vi) SAIDI before; 15.34
- (vii) SAIDI normalised; 2.87
- (viii) Location; Various
Berwick Road; Clinton; Owaka township; Ahururu Flat; Balclutha to
Owaka; Wairunga; Glenomaru; Balclutha town; Palmerston town;
Waikouaiti; Lawrence; Finegrand 33kV; Inch Valley; Gimmerburn;
Michies Crossing
- (ix) Equipment; Various – including:
Broken dead end insulator
Broken overhead LV conductor
Broken 11 kV overhead wires
Blown 11 kV fuse
Broken 11 kV overhead wires
Broken Telecom wires
Broken LV private service wire
Tree on line
Broken cross arm
Broken LV fuse
Filed guy wire
- (x) Response; Isolate relevant sections. Repair and restore power
- (xi) Mitigating factors; Mostly extreme wind – also includes:
Old insulator
Public safety concerns – switch whole feeder off
Remote location
Deterioration
- (xii) Proposed mitigation. Inspection and maintenance

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	13/06/2021 11:00	0.00	1.44	13.19	0.00
0.246	13/06/2021 11:30	0.00	1.44	13.19	0.00
0.246	13/06/2021 12:00	0.00	1.44	13.19	0.00
0.246	13/06/2021 12:30	0.00	1.44	13.19	0.00
0.246	13/06/2021 13:00	0.00	1.44	13.19	0.00
0.246	13/06/2021 13:30	0.00	1.44	13.19	0.00
0.246	13/06/2021 14:00	0.00	1.44	13.19	0.00
0.246	13/06/2021 14:30	0.00	1.44	13.19	0.00
0.246	13/06/2021 15:00	0.00	1.44	13.19	0.00
0.246	13/06/2021 15:30	0.00	1.44	13.19	0.00
0.246	13/06/2021 16:00	0.00	1.44	13.19	0.00
0.246	13/06/2021 16:30	0.00	1.44	13.19	0.00
0.246	13/06/2021 17:00	0.00	1.35	13.19	0.00
0.246	13/06/2021 17:30	0.00	1.35	13.19	0.00
0.246	13/06/2021 18:00	0.05	1.40	13.19	0.05
0.246	13/06/2021 18:30	0.00	1.40	13.19	0.00
0.246	13/06/2021 19:00	0.00	1.40	13.19	0.00
0.246	13/06/2021 19:30	0.00	1.40	13.19	0.00
0.246	13/06/2021 20:00	0.00	1.40	13.19	0.00
0.246	13/06/2021 20:30	0.00	1.40	13.19	0.00
0.246	13/06/2021 21:00	0.00	1.40	13.19	0.00
0.246	13/06/2021 21:30	0.00	1.40	13.19	0.00
0.246	13/06/2021 22:00	0.00	1.40	13.19	0.00
0.246	13/06/2021 22:30	0.00	1.40	13.19	0.00
0.246	13/06/2021 23:00	0.00	1.40	13.19	0.00
0.246	13/06/2021 23:30	0.00	1.40	13.19	0.00
0.246	14/06/2021 0:00	0.00	1.40	13.19	0.00
0.246	14/06/2021 0:30	0.00	1.40	13.19	0.00
0.246	14/06/2021 1:00	0.00	1.40	13.19	0.00
0.246	14/06/2021 1:30	0.00	1.40	13.19	0.00
0.246	14/06/2021 2:00	0.00	1.40	13.19	0.00
0.246	14/06/2021 2:30	0.00	1.40	13.19	0.00
0.246	14/06/2021 3:00	0.00	1.40	13.19	0.00
0.246	14/06/2021 3:30	0.00	1.40	13.19	0.00
0.246	14/06/2021 4:00	0.00	1.40	13.19	0.00
0.246	14/06/2021 4:30	0.00	1.40	13.19	0.00
0.246	14/06/2021 5:00	0.00	1.40	13.19	0.00
0.246	14/06/2021 5:30	0.00	1.40	13.19	0.00
0.246	14/06/2021 6:00	0.00	0.45	13.19	0.00
0.246	14/06/2021 6:30	0.00	0.45	13.19	0.00
0.246	14/06/2021 7:00	0.00	0.45	13.19	0.00

0.246	14/06/2021 7:30	0.00	0.45	13.19	0.00
0.246	14/06/2021 8:00	0.00	0.45	13.19	0.00
0.246	14/06/2021 8:30	11.28	11.37	13.19	0.25
0.246	14/06/2021 9:00	0.00	11.37	13.19	0.00
0.246	14/06/2021 9:30	0.00	11.37	13.19	0.00
0.246	14/06/2021 10:00	0.00	11.37	13.19	0.00
0.246	14/06/2021 10:30	1.86	13.19	13.19	0.25
0.246	14/06/2021 11:00	0.00	13.19	13.19	0.00
0.246	14/06/2021 11:30	0.00	13.19	13.19	0.00
0.246	14/06/2021 12:00	0.00	13.19	13.19	0.00
0.246	14/06/2021 12:30	0.00	13.19	13.19	0.00
0.246	14/06/2021 13:00	0.00	13.19	13.19	0.00
0.246	14/06/2021 13:30	0.00	13.19	13.19	0.00
0.246	14/06/2021 14:00	0.00	13.19	13.19	0.00
0.246	14/06/2021 14:30	0.00	13.19	13.19	0.00
0.246	14/06/2021 15:00	0.00	13.19	13.19	0.00
0.246	14/06/2021 15:30	0.00	13.19	13.19	0.00
0.246	14/06/2021 16:00	0.00	13.19	13.19	0.00
0.246	14/06/2021 16:30	0.00	13.19	13.19	0.00
0.246	14/06/2021 17:00	0.00	13.19	13.19	0.00
0.246	14/06/2021 17:30	0.00	13.19	13.19	0.00
0.246	14/06/2021 18:00	0.00	13.14	13.14	0.00
0.246	14/06/2021 18:30	0.00	13.14	13.14	0.00
0.246	14/06/2021 19:00	0.00	13.14	13.14	0.00
0.246	14/06/2021 19:30	0.00	13.14	13.14	0.00
0.246	14/06/2021 20:00	0.00	13.14	13.14	0.00
0.246	14/06/2021 20:30	0.00	13.14	13.14	0.00
0.246	14/06/2021 21:00	0.00	13.14	13.14	0.00
0.246	14/06/2021 21:30	0.00	13.14	13.14	0.00
0.246	14/06/2021 22:00	0.00	13.14	13.14	0.00
0.246	14/06/2021 22:30	0.00	13.14	13.14	0.00
0.246	14/06/2021 23:00	0.00	13.14	13.14	0.00
0.246	14/06/2021 23:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 0:00	0.00	13.14	13.14	0.00
0.246	15/06/2021 0:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 1:00	0.00	13.14	13.14	0.00
0.246	15/06/2021 1:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 2:00	0.00	13.14	13.14	0.00
0.246	15/06/2021 2:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 3:00	0.00	13.14	13.14	0.00
0.246	15/06/2021 3:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 4:00	0.00	13.14	13.14	0.00
0.246	15/06/2021 4:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 5:00	0.00	13.14	13.14	0.00

0.246	15/06/2021 5:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 6:00	0.00	13.14	13.14	0.00
0.246	15/06/2021 6:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 7:00	0.00	13.14	13.14	0.00
0.246	15/06/2021 7:30	0.00	13.14	13.14	0.00
0.246	15/06/2021 8:00	0.00	13.14	13.14	0.00
TOTAL		13.19			0.54

- (i) Cause; Defective equipment
- (ii) Start date; 13/06/21
- (iii) Start time; 11:00
- (iv) End date; 15/06/21
- (v) End time; 08:00
- (vi) SAIDI before; 13.19
- (vii) SAIDI normalised; 0.54
- (viii) Location; Port Molyneux sub; Owaka; Wangaloa
- (ix) Equipment; Failed insulators and failed 33 kV connection and crossarm
- (x) Response; Locate and replace insulator; isolate 33 kV, back-feed part of 11 kV, repair connection
- (xi) Mitigating factors; Deterioration and Salt Air
- (xii) Proposed mitigation. Continued overhead line inspection; substation inspection; Infrared survey

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	28/06/2021 7:30	8.11	8.11	12.88	0.25
0.246	28/06/2021 8:00	0.00	8.11	12.88	0.00
0.246	28/06/2021 8:30	0.00	8.11	12.88	0.00
0.246	28/06/2021 9:00	1.64	9.75	12.88	0.25
0.246	28/06/2021 9:30	0.02	9.78	12.88	0.02
0.246	28/06/2021 10:00	0.00	9.78	12.88	0.00
0.246	28/06/2021 10:30	0.00	9.78	12.88	0.00
0.246	28/06/2021 11:00	0.00	9.78	12.88	0.00
0.246	28/06/2021 11:30	0.02	9.79	12.88	0.02
0.246	28/06/2021 12:00	0.00	9.79	12.88	0.00
0.246	28/06/2021 12:30	0.00	9.79	12.88	0.00
0.246	28/06/2021 13:00	0.01	9.80	12.88	0.01
0.246	28/06/2021 13:30	0.83	10.64	12.88	0.25
0.246	28/06/2021 14:00	0.17	10.80	12.88	0.17
0.246	28/06/2021 14:30	0.00	10.81	12.88	0.00
0.246	28/06/2021 15:00	0.00	10.81	12.88	0.00
0.246	28/06/2021 15:30	0.00	10.81	12.88	0.00
0.246	28/06/2021 16:00	0.00	10.81	12.88	0.00
0.246	28/06/2021 16:30	0.01	10.82	12.88	0.01

0.246	28/06/2021 17:00	0.00	10.82	12.88	0.00
0.246	28/06/2021 17:30	0.00	10.82	12.88	0.00
0.246	28/06/2021 18:00	0.97	11.79	12.88	0.25
0.246	28/06/2021 18:30	0.00	11.79	12.88	0.00
0.246	28/06/2021 19:00	0.00	11.79	12.88	0.00
0.246	28/06/2021 19:30	0.00	11.79	12.88	0.00
0.246	28/06/2021 20:00	0.00	11.79	12.88	0.00
0.246	28/06/2021 20:30	0.00	11.79	12.88	0.00
0.246	28/06/2021 21:00	0.00	11.79	12.88	0.00
0.246	28/06/2021 21:30	0.00	11.79	12.88	0.00
0.246	28/06/2021 22:00	0.00	11.79	12.88	0.00
0.246	28/06/2021 22:30	0.00	11.79	12.88	0.00
0.246	28/06/2021 23:00	0.00	11.79	12.88	0.00
0.246	28/06/2021 23:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 0:00	0.00	11.79	12.88	0.00
0.246	29/06/2021 0:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 1:00	0.00	11.79	12.88	0.00
0.246	29/06/2021 1:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 2:00	0.00	11.79	12.88	0.00
0.246	29/06/2021 2:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 3:00	0.00	11.79	12.88	0.00
0.246	29/06/2021 3:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 4:00	0.00	11.79	12.88	0.00
0.246	29/06/2021 4:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 5:00	0.00	11.79	12.88	0.00
0.246	29/06/2021 5:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 6:00	0.00	11.79	12.88	0.00
0.246	29/06/2021 6:30	0.00	11.79	12.88	0.00
0.246	29/06/2021 7:00	1.10	12.88	12.88	0.25
TOTAL		12.88			1.46

- (i) Cause; Adverse weather
- (ii) Start date; 28/06/21
- (iii) Start time; 07:30
- (iv) End date; 29/06/21
- (v) End time; 07:00
- (vi) SAIDI before; 12.88
- (vii) SAIDI normalised; 1.46
- (viii) Location; Various:
Port Molyneux Substation; Blue Mountains; Owaka; Kaihiku Repeater;
Pukeawa Substation; Chaslands; Lawrence to Beaumont; Clarks Flat Road
- (ix) Equipment; Various – including:
Failed 33kV connection
Blown 11 kV fuse
Broken wire and cross arm

- (x) Response; Broken pole
Isolate, inspect, repair or replace.
- (xi) Mitigating factors; Deterioration, wind and snow
- (xii) Proposed mitigation. Substation inspections and infra red surveys. Pole inspections.

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	11/09/2021 15:30	0.26	0.91	30.55	0.25
0.246	11/09/2021 16:00	0.00	0.91	30.55	0.00
0.246	11/09/2021 16:30	0.00	0.91	30.93	0.00
0.246	11/09/2021 17:00	0.00	0.91	33.33	0.00
0.246	11/09/2021 17:30	0.00	0.91	33.33	0.00
0.246	11/09/2021 18:00	0.00	0.91	33.33	0.00
0.246	11/09/2021 18:30	0.00	0.91	33.33	0.00
0.246	11/09/2021 19:00	0.00	0.91	33.33	0.00
0.246	11/09/2021 19:30	0.00	0.91	33.33	0.00
0.246	11/09/2021 20:00	0.00	0.91	33.33	0.00
0.246	11/09/2021 20:30	0.00	0.91	33.35	0.00
0.246	11/09/2021 21:00	0.00	0.91	33.38	0.00
0.246	11/09/2021 21:30	0.00	0.91	33.38	0.00
0.246	11/09/2021 22:00	0.00	0.91	33.88	0.00
0.246	11/09/2021 22:30	0.00	0.91	33.99	0.00
0.246	11/09/2021 23:00	0.00	0.91	34.02	0.00
0.246	11/09/2021 23:30	0.00	0.91	34.02	0.00
0.246	12/09/2021 0:00	0.00	0.91	34.91	0.00
0.246	12/09/2021 0:30	0.00	0.91	34.91	0.00
0.246	12/09/2021 1:00	0.00	0.91	34.91	0.00
0.246	12/09/2021 1:30	0.00	0.91	34.91	0.00
0.246	12/09/2021 2:00	0.00	0.91	34.91	0.00
0.246	12/09/2021 2:30	0.00	0.91	34.94	0.00
0.246	12/09/2021 3:00	0.00	0.91	34.94	0.00
0.246	12/09/2021 3:30	0.00	0.91	34.94	0.00
0.246	12/09/2021 4:00	0.00	0.91	34.94	0.00
0.246	12/09/2021 4:30	0.00	0.91	34.94	0.00
0.246	12/09/2021 5:00	0.00	0.91	34.94	0.00
0.246	12/09/2021 5:30	0.00	0.91	34.94	0.00
0.246	12/09/2021 6:00	0.00	0.91	34.94	0.00
0.246	12/09/2021 6:30	0.00	0.91	34.94	0.00
0.246	12/09/2021 7:00	0.00	0.91	34.98	0.00
0.246	12/09/2021 7:30	0.00	0.91	34.98	0.00
0.246	12/09/2021 8:00	0.00	0.91	35.02	0.00
0.246	12/09/2021 8:30	0.00	0.91	35.02	0.00
0.246	12/09/2021 9:00	0.00	0.91	35.46	0.00
0.246	12/09/2021 9:30	0.00	0.91	36.65	0.00

0.246	12/09/2021 10:00	0.00	0.91	37.00	0.00
0.246	12/09/2021 10:30	0.00	0.91	37.10	0.00
0.246	12/09/2021 11:00	0.01	0.92	37.10	0.01
0.246	12/09/2021 11:30	0.33	1.25	37.22	0.25
0.246	12/09/2021 12:00	0.00	1.25	38.29	0.00
0.246	12/09/2021 12:30	1.96	3.21	38.29	0.25
0.246	12/09/2021 13:00	0.56	3.77	38.29	0.25
0.246	12/09/2021 13:30	0.00	3.12	38.29	0.00
0.246	12/09/2021 14:00	0.77	3.90	38.29	0.25
0.246	12/09/2021 14:30	0.00	3.90	38.29	0.00
0.246	12/09/2021 15:00	26.65	30.55	38.29	0.25
0.246	12/09/2021 15:30	0.00	30.29	38.29	0.00
0.246	12/09/2021 16:00	0.64	30.93	38.29	0.25
0.246	12/09/2021 16:30	2.40	33.33	38.29	0.25
0.246	12/09/2021 17:00	0.00	33.33	38.29	0.00
0.246	12/09/2021 17:30	0.00	33.33	38.29	0.00
0.246	12/09/2021 18:00	0.00	33.33	38.29	0.00
0.246	12/09/2021 18:30	0.00	33.33	38.29	0.00
0.246	12/09/2021 19:00	0.00	33.33	38.29	0.00
0.246	12/09/2021 19:30	0.00	33.33	38.29	0.00
0.246	12/09/2021 20:00	0.02	33.35	38.29	0.02
0.246	12/09/2021 20:30	0.03	33.38	38.29	0.03
0.246	12/09/2021 21:00	0.00	33.38	38.29	0.00
0.246	12/09/2021 21:30	0.50	33.88	38.29	0.25
0.246	12/09/2021 22:00	0.12	33.99	38.29	0.12
0.246	12/09/2021 22:30	0.02	34.02	38.29	0.02
0.246	12/09/2021 23:00	0.00	34.02	38.29	0.00
0.246	12/09/2021 23:30	0.90	34.91	38.29	0.25
0.246	13/09/2021 0:00	0.00	34.91	38.29	0.00
0.246	13/09/2021 0:30	0.00	34.91	38.29	0.00
0.246	13/09/2021 1:00	0.00	34.91	38.29	0.00
0.246	13/09/2021 1:30	0.00	34.91	38.29	0.00
0.246	13/09/2021 2:00	0.02	34.94	38.29	0.02
0.246	13/09/2021 2:30	0.00	34.94	38.29	0.00
0.246	13/09/2021 3:00	0.00	34.94	38.29	0.00
0.246	13/09/2021 3:30	0.00	34.94	38.29	0.00
0.246	13/09/2021 4:00	0.00	34.94	38.29	0.00
0.246	13/09/2021 4:30	0.00	34.94	38.29	0.00
0.246	13/09/2021 5:00	0.00	34.94	38.29	0.00
0.246	13/09/2021 5:30	0.00	34.94	38.29	0.00
0.246	13/09/2021 6:00	0.00	34.94	38.29	0.00
0.246	13/09/2021 6:30	0.04	34.98	38.29	0.04
0.246	13/09/2021 7:00	0.00	34.98	38.29	0.00
0.246	13/09/2021 7:30	0.04	35.02	38.29	0.04
0.246	13/09/2021 8:00	0.00	35.02	38.29	0.00
0.246	13/09/2021 8:30	0.44	35.46	38.29	0.25
0.246	13/09/2021 9:00	1.19	36.65	38.29	0.25

0.246	13/09/2021 9:30	0.35	37.00	38.29	0.25
0.246	13/09/2021 10:00	0.10	37.10	38.29	0.10
0.246	13/09/2021 10:30	0.00	37.10	38.29	0.00
0.246	13/09/2021 11:00	0.13	37.22	38.29	0.13
0.246	13/09/2021 11:30	1.40	38.29	38.29	0.25
0.246	13/09/2021 12:00	0.00	38.29	38.29	0.00
0.246	13/09/2021 12:30	0.00	36.33	36.33	0.00
0.246	13/09/2021 13:00	0.00	35.77	35.77	0.00
0.246	13/09/2021 13:30	0.00	35.77	35.77	0.00
0.246	13/09/2021 14:00	0.01	35.00	35.00	0.01
0.246	13/09/2021 14:30	0.00	35.00	35.00	0.00
TOTAL		38.90			3.99

- (i) Cause; 38 different outages; including:
Adverse weather; Defective equipment; Lightning; Vegetation.
Two significant outages caused 30 mins SAIDI – both caused by Adverse weather
- (ii) Start date; 11/09/21
- (iii) Start time; 15:30
- (iv) End date; 13/09/21
- (v) End time; 14:30
- (vi) SAIDI before; 38.90
- (vii) SAIDI normalised; 3.99
- (viii) Location; Various including:
Port Molyneaux substation
Blue Mountains
Owaka
Kaihiku Repeater
Pukeawa substation
Clinton, Taumata
Finegand, Telford
Ranfurly, Gimmerburn
Deepdell, Macraes Flat
Hindon
Milburn and Waihola
Naseby
Stoneburn
Oturehua
Waitati
Clydevale
Ranfurly
Waipiata
Middlemarch
Clarks
Green Valley
Purakanui
Clarks Flat Road
Brothers Peak
Craigellachie
Two largest outages: Port Molyneux Sub; Milburn and Waihola

- (ix) Equipment; Failed 33 kV connection; Blown 11 kV fuse; Cross arm; 33 kV insulator tie; broken wires; 11 kV insulator tie; trees on lines.
Major outages equipment = 33 kV connection and 33 kV insulator tie
- (x) Response; Locate, isolate, repair or replace; sectionalise line where required; open CB1 for public safety, back-feed, remove trees; retie wires; sectionalise, isolate, and remove trees.
- (xi) Mitigating factors; Deterioration; high wind; snow; lightning strike; vegetation
Major outages = deterioration, wind and snow.
- (xii) Proposed mitigation. Substation inspections and infra red surveys; pole inspections; vegetation inspections and clearance; overhead line inspections.

Director Certification (Clause 11.5(d))

I, Duncan Varnham Fea, 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.



Duncan Varnham Fea

29 June 2022



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)

We have completed the 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 2022.

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 2022.

Basis for Opinion

We have conducted our engagement in accordance with the International Standard on Assurance Engagements (New Zealand) 3000 (Revised): *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* and 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.

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 compliance with the Electricity Distribution (Information Disclosure) Determination 2012, other regulatory requirements of the Commerce Act 1986 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 2022, 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 2022.

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 12 to 18 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 19 to 34 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 10 to 11 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 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 2022

Christchurch, New Zealand