

**IN THE HIGH COURT OF NEW ZEALAND
AUCKLAND REGISTRY**

**I TE KŌTI MATUA O AOTEAROA
TĀMAKI MAKĀURAU ROHE**

CIV-2022-404-1495

UNDER Parts 4 and 6 of the Commerce Act 1986

BETWEEN **COMMERCE COMMISSION**, a body corporate established under section 8 of the Commerce Act 1986 having its offices at 44 The Terrace, Wellington

Plaintiff

AND **VECTOR LIMITED**, a company having its registered office at 101 Carlton Gore Road, Newmarket, Auckland

Defendant

AGREED SUMMARY OF FACTS

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TABLE OF CONTENTS

1.	Introduction	2
2.	Part 4 of the Commerce Act	3
3.	Price-Quality requirements	3
4.	Applicable quality standards	4
5.	Applicable SAIDI and SAIFI Limits	5
6.	Nature and extent of contraventions	6
7.	Loss or damage suffered	14
8.	Circumstances of the contraventions	15
	<i>Governance of compliance with the quality standards</i>	17
	<i>Asset lifecycle management practices</i>	18
	<i>Reliability management</i>	19
	<i>Vegetation management</i>	20
	<i>Field service providers</i>	21
	<i>Health and safety changes</i>	21
	<i>Planned outages</i>	24
	<i>Financial benefit from contraventions</i>	24
9.	Additional matters the parties have taken into account in recommending the penalties	25

AGREED SUMMARY OF FACTS

1. INTRODUCTION

1.1 The contravening conduct in this case relates to the defendant's failure to comply with quality standards imposed on it under s 52P of the Commerce Act 1986 (the **Act**) for the years ending:

- (a) 31 March 2017 (the **2017 Assessment Period**);
- (b) 31 March 2018 (the **2018 Assessment Period**);
- (c) 31 March 2019 (the **2019 Assessment Period**); and
- (d) 31 March 2020 (the **2020 Assessment Period**).

1.2 The defendant, Vector Limited (**Vector**), is a company with its registered office at 101 Carlton Gore Road, Newmarket, Auckland. Vector carries on business as an electricity and gas distribution company in Auckland and the surrounding regions. Vector is a supplier of electricity lines services that are subject to regulation under Part 4 of the Act, including quality standards imposed on it under s 52P.

1.3 Under s 87(1)(a) of the Act, the Court may order a person to pay a pecuniary penalty if the court is satisfied that the defendant has contravened any such price-quality requirements applying to regulated services. In setting the amount of pecuniary penalty, the court must take into account all of the matters listed in s 87(4):

- (a) the nature and extent of the contravention (see Part 6 below);
- (b) the nature and extent of any loss or damage suffered by any person as a result of the contravention (see Part 7 below);
- (c) the circumstances in which the contravention took place (including whether the contravention was intentional,

inadvertent, or caused by negligence) (see Part 8 below);
and

- (d) whether or not the person has previously been found by the court in proceedings under this Part to have engaged in similar conduct.

2. PART 4 OF THE COMMERCE ACT

2.1 Part 4 of the Act provides for the regulation of goods and services in markets where there is little or no competition and little or no likelihood of a substantial increase in competition.

2.2 The electricity lines services supplied by Vector are subject to:

- (a) information disclosure regulation; and
- (b) price-quality regulation.

2.3 The purposes of price-quality regulation include:

- (a) limiting the ability of suppliers to extract excessive profits;
and
- (b) providing incentives to suppliers to provide services at a quality that reflects consumer demands.

2.4 Under the Act, the Commerce Commission (**Commission**) is required to publish input methodologies that set out the rules, requirements and processes that apply to regulation of services under Part 4 of the Act.

2.5 Section 52P of the Act requires the Commission to make determinations specifying the requirements that apply to each regulated supplier.

3. PRICE-QUALITY REQUIREMENTS

3.1 Vector is a supplier of regulated services to whom a determination under s 52P of the Act applies.

3.2 The relevant s 52P determination is the Electricity Distribution Services Default Price-Quality Path Determination 2015 dated 28 November 2014 (**DPP**) which applied from 1 April 2015 to 31 March 2020.

4. APPLICABLE QUALITY STANDARDS

4.1 Under the DPP:

- (a) Vector supplies "**Electricity Lines Services**" as defined in the DPP.
- (b) Vector is a "**Non-exempt EDB**" as defined in the DPP and where "EDB" refers to an electricity distribution business.
- (c) An "**Assessment Period**" is defined in the DPP as a 12-month period commencing on 1 April and ending on 31 March of the following year for which compliance with price-quality requirements is assessed.
- (d) The quality of a Non-exempt EDB's Electricity Lines Services is assessed under the DPPs in terms of the system average interruption duration index (**SAIDI**) and system average interruption frequency index (**SAIFI**).
- (e) SAIDI is a measure of the average outage duration per customer over the Assessment Period, and is expressed in terms of minutes per Assessment Period.
- (f) SAIFI measures the average number of service interruptions per customer over the Assessment Period.

- 4.2 The relevant quality standards are set out in clause 9 of the DPP (**Quality Standards**). Clause 9.1 of the DPP provides:

Compliance with Quality Standards:

9.1 A Non-exempt EDB must, in respect of each Assessment Period, either:

- (a) comply with the annual reliability assessment specified in clause 9.2 for that Assessment Period; or
- (b) have complied with the annual reliability assessment in each of the two preceding Assessment Periods.

- 4.3 To comply with the annual reliability assessments, clause 9.2 of the DPP provides that:

- (a) a Non-exempt EDB's SAIDI assessed value for a given Assessment Period must not exceed the maximum specified in the relevant DPP (**SAIDI Limit**); and
- (b) a Non-exempt EDB's SAIFI assessed value for a given Assessment Period must not exceed the maximum specified in the relevant DPP (**SAIFI Limit**).

- 4.4 The purpose of the Quality Standards is to hold regulated suppliers responsible for the quality of their Electricity Lines Services and the reliability of their electricity distribution networks.

5. APPLICABLE SAIDI AND SAIFI LIMITS

- 5.1 The SAIDI and SAIFI Limits for Vector the period 1 April 2015 to 31 March 2020 (that is, the 2016 to 2020 Assessment Periods) are set out in Schedule 4A of the DPP as follows:

- (a) the SAIDI historic average, based on the relevant reference period, was 96;
- (b) the SAIDI Limit is 104.173; and
- (c) the SAIFI Limit is 1.395.

- 5.2 The SAIDI and SAIFI Limits are set to allow for a reasonable degree of variability in performance:
- (a) the limits are set at one standard deviation above the individual non-exempt EDB's historical SAIDI and SAIFI averages, as measured over the applicable reference period;
 - (b) for a Quality Standard to be contravened, a Non-exempt EDB must exceed the annual reliability assessment in the particular year and in either of the prior two years; and
 - (c) to limit the impact of one-off events such as severe storms, the number of SAIDI minutes and SAIFI incidents that can arise in a single day are subject to upper limits. This process is known as normalisation.
- 5.3 The DPP also includes a Quality Incentive Scheme (**Scheme**) which links a Non-exempt EDB's revenue to the reliability of the network.

6. NATURE AND EXTENT OF CONTRAVENTIONS

- 6.1 Under clause 11 of the DPP, every Non-exempt EDB is required to submit an annual compliance statement for each Assessment Period within 50 working days following the end of the Assessment Period. Pursuant to an amendment of 9 April 2020, the deadline for filing annual compliance statements for the 2020 Assessment Period was 17 August 2020.
- 6.2 The compliance statement must include:
- (a) SAIDI and SAIFI assessed values, as provided for by the DPP, for the Assessment Period;
 - (b) a description of the policies and procedures used for recording the SAIDI and SAIFI assessed values for the Assessment Period; and

- (c) the SAIDI and SAIFI calculations used in determining the SAIDI and SAIFI assessed values.

6.3 The SAIDI assessed values stated by Vector in its compliance statements were as follows:

- (a) for the 2016 Assessment Period, 117;
- (b) for the 2017 Assessment Period, 174;
- (c) for the 2018 Assessment Period, 226;
- (d) for the 2019 Assessment Period, 198; and
- (e) for the 2020 Assessment Period, 167.

6.4 The SAIFI assessed values stated by Vector in its compliance statements were as follows:

- (a) for the 2016 Assessment Period, 1.11;
- (b) for the 2017 Assessment Period, 1.85;
- (c) for the 2018 Assessment Period, 2.14;
- (d) for the 2019 Assessment Period, 1.76; and
- (e) for the 2020 Assessment Period, 1.58.

6.5 Vector contravened the Quality Standard for the 2017 Assessment Period:

- (a) Vector failed to comply with the annual reliability assessment for the 2017 Assessment Period because:
 - (i) Vector's SAIDI assessed value was 174 and therefore exceeded the 2017 SAIDI Limit of 104.173; and
 - (ii) Vector's SAIFI assessed value was 1.85 and therefore exceeded the SAIFI Limit of 1.395.
- (b) Vector failed to comply with the annual reliability assessment for the 2016 Assessment Period because

Vector's SAIDI assessed value was 117 and therefore exceeded the 2016 SAIDI Limit of 104.173.

6.6 Vector contravened the Quality Standard for the 2018 Assessment Period:

(a) Vector failed to comply with the annual reliability assessment for the 2018 Assessment Period because:

(i) Vector's SAIDI assessed value was 226 and therefore exceeded the 2018 SAIDI Limit of 104.173; and

(ii) Vector's SAIFI assessed value was 2.14 and therefore exceeded the 2018 SAIFI Limit of 1.395.

(b) Vector failed to comply with the annual reliability assessment for the 2017 Assessment Period because:

(i) Vector's SAIDI assessed value was 174 and therefore exceeded the 2017 SAIDI Limit of 104.173; and

(ii) Vector's SAIFI assessed value was 1.85 and therefore exceeded the 2017 SAIFI Limit of 1.395.

(c) Vector failed to comply with the annual reliability assessment for the 2016 Assessment Period because Vector's SAIDI assessed value was 117 and therefore exceeded the 2016 SAIDI Limit of 104.173.

6.7 Vector contravened the Quality Standard for the 2019 Assessment Period:

(a) Vector failed to comply with the annual reliability assessment for the 2019 Assessment Period because:

(i) Vector's SAIDI assessed value was 198 and therefore exceeded the 2019 SAIDI Limit of 104.173; and

- (ii) Vector's SAIFI assessed value was 1.76 and therefore exceeded the 2019 SAIFI Limit of 1.395.
- (b) Vector failed to comply with the annual reliability assessment for the 2018 Assessment Period because:
 - (i) Vector's SAIDI assessed value was 226 and therefore exceeded the 2018 SAIDI Limit of 104.173; and
 - (ii) Vector's SAIFI assessed value was 2.14 and therefore exceeded the 2018 SAIFI Limit of 1.395.
- (c) Vector failed to comply with the annual reliability assessment for the 2017 Assessment Period because:
 - (iii) Vector's SAIDI assessed value was 174 and therefore exceeded the 2017 SAIDI Limit of 104.173; and
 - (iv) Vector's SAIFI assessed value was 1.85 and therefore exceeded the 2017 SAIFI Limit of 1.395.

6.8 Vector contravened the Quality Standard for the 2020 Assessment Period:

- (a) Vector failed to comply with the annual reliability assessment for the 2020 Assessment Period because:
 - (i) Vector's SAIDI assessed value was 167 and therefore exceeded the 2020 SAIDI Limit of 104.173; and
 - (ii) Vector's SAIFI assessed value was 1.58 and therefore exceeded the 2020 SAIFI Limit of 1.395.

- (b) Vector failed to comply with the annual reliability assessment for the 2019 Assessment Period because:
 - (i) Vector’s SAIDI assessed value was 198 and therefore exceeded the 2019 SAIDI Limit of 104.173; and
 - (ii) Vector’s SAIFI assessed value was 1.76 and therefore exceeded the 2019 SAIFI Limit of 1.395.

- (c) Vector failed to comply with the annual reliability assessment for the 2018 Assessment Period because:
 - (i) Vector’s SAIDI assessed value was 226 and therefore exceeded the 2018 SAIDI Limit of 104.173; and
 - (ii) Vector’s SAIFI assessed value was 2.14 and therefore exceeded the 2018 SAIFI Limit of 1.395.

6.9 In summary, Vector’s annual reliability performance for the 2016 to 2020 Assessment Periods was as follows:

Assessment Period	SAIDI Limit (minutes)	Assessed SAIDI (minutes)	SAIDI Outcome	SAIFI Limit (interruptions)	Assessed SAIFI (interruptions)	SAIFI Outcome	Annual reliability Assessment	Quality Standard
2016	104.2	117	Exceeded	1.395	1.11	Within	Exceeded	Contravened
2017	104.2	174	Exceeded	1.395	1.85	Exceeded	Exceeded	Contravened
2018	104.2	226	Exceeded	1.395	2.14	Exceeded	Exceeded	Contravened
2019	104.2	198	Exceeded	1.395	1.76	Exceeded	Exceeded	Contravened
2020	104.2	167	Exceeded	1.395	1.58	Exceeded	Exceeded	Contravened

6.10 For the 2017 Assessment Period:

- (a) Vector had an average of 551,728 ICPs/customers.
- (b) The total non-normalised service interruption experienced by Vector’s customers was 136,924,533 minutes (2,282,076 hours) or 248 minutes per customer.

- (c) After normalisation, the total service interruption experienced by Vector's customers was 95,800,395 minutes (1,596,673 hours) or 174 minutes per customer.
- (d) After normalisation, the total service interruption experienced by Vector's customers above the SAIDI Limit was 38,325,234 minutes (638,754 hours) or 69 minutes per customer.
- (e) Vector therefore exceeded its SAIDI Limit by 69 minutes, or 67 percent.
- (f) The total non-normalised number of interruptions experienced by the average Vector customer was 2.030 interruptions.
- (g) After normalisation, the total number of interruptions experienced by the average Vector customer was 1.850 interruptions.
- (h) After normalisation, the total number of interruptions experienced by the average Vector customer above the SAIFI Limit was 0.455 interruptions.
- (i) Vector therefore exceeded its SAIFI Limit by 0.455 interruptions per customer, or 33 percent.

6.11 For the 2018 Assessment Period:

- (a) Vector had an average of 557,490 ICPs / customers.
- (b) The total non-normalised service interruption experienced by Vector's customers was 170,982,183 minutes (2,849,703 hours) or 307 minutes per customer.
- (c) After normalisation, the total service interruption experienced by Vector's customers was 126,102,008 minutes (2,101,700 hours) or 226 minutes per customer.
- (d) After normalisation, the total service interruption experienced by Vector's customers above the SAIDI Limit was 68,026,602 minutes (1,133,777 hours) or 122 minutes per customer.

- (e) Vector therefore exceeded its SAIDI Limit by 122 SAIDI minutes, or 117 percent.
- (f) The total non-normalised number of interruptions experienced by the average Vector customer was 2.378 interruptions.
- (g) After normalisation, the total number of interruptions experienced by the average Vector customer was 2.144 interruptions.
- (h) After normalisation, the total number of interruptions experienced by the average Vector customer above the SAIFI Limit was 0.749 interruptions.
- (i) Vector therefore exceeded its SAIFI Limit by 0.749 interruptions per customer, or 54 percent.

6.12 For the 2019 Assessment Period:

- (a) Vector had an average of 565,200 ICPs / customers.
- (b) The total non-normalised service interruption experienced by Vector's customers was 335,389,680 minutes (5,589,828 hours) or 593 minutes per customer.
- (c) After normalisation, the total service interruption experienced by Vector's customers was 112,023,205 minutes (1,867,053 hours) or 198 minutes per customer.
- (d) After normalisation, the total service interruption experienced by Vector's customers above the SAIDI Limit was 53,144,626 minutes (885,744 hours) or 94 minutes per customer.
- (e) Vector therefore exceeded its SAIDI Limit by 94 SAIDI minutes, or 90 percent.
- (f) The total non-normalised number of interruptions experienced by the average Vector customer was 1.943 interruptions.
- (g) After normalisation, the total number of interruptions experienced by the average Vector customer was 1.756 interruptions.

- (h) After normalisation, the total number of interruptions experienced by the average Vector customer above the SAIFI Limit was 0.361 interruptions.
- (i) Vector therefore exceeded its SAIFI Limit by 0.361 interruptions per customer, or 26 percent.

6.13 For the 2020 Assessment Period:

- (a) Vector had an average of 573,860 ICPs / customers.
- (b) The total non-normalised service interruption experienced by Vector's customers was 126,995,218 minutes (2,116,587 hours) or 221 minutes per customer.
- (c) After normalisation, the total service interruption experienced by Vector's customers was 96,118,681 minutes (1,601,978 hours) or 167 minutes per customer.
- (d) After normalisation, the total service interruption experienced by Vector's customers above the SAIDI Limit was 36,337,963 minutes (605,633 hours) or 63 minutes per customer.
- (e) Vector therefore exceeded its SAIDI Limit by 63 SAIDI minutes, or 61 percent.
- (f) The total non-normalised number of interruptions experienced by the average Vector customer was 1.794 interruptions.
- (g) After normalisation, the total number of interruptions experienced by the average Vector customer was 1.575 interruptions.
- (h) After normalisation, the total number of interruptions experienced by the average Vector customer above the SAIFI Limit was 0.180 interruptions.
- (i) Vector therefore exceeded its SAIFI Limit by 0.180 interruptions per customer, or 13 percent.

6.14 From 1 April 2020 a different s 52P determination¹ applied to Non-exempt EDBs, including Vector. That s 52P determination includes quality standards concerning reliability of power supply, but those were calculated differently and have different limits. Vector was compliant with the quality standards that applied to it in the 2021 Assessment Period, in part due to improvements in reliability. As of the date of this Agreed Summary of Facts, Vector has complied with the quality standards in the 2022 Assessment Period (subject to audit).

7. LOSS OR DAMAGE SUFFERED

7.1 Outages on an EDB's distribution network (whether planned or unplanned) can cause that EDB's customers to suffer loss or damage. Such harm may include the cost of back-up power and/or other mitigation steps. Examples of the types of harm that particular categories of customers may typically suffer include:

- (a) for industrial consumers, interruption to industrial processes (such as the ability to receive raw materials, to conduct production processes, and to distribute the end product), and consequential loss including staff downtime, wasted product and the costs of cleaning and disposal required to recalibrate the supply chain;
- (b) for service-based commercial consumers, forced closure/interruption of service with consequential loss of revenue, loss of perishable items and wasted staff costs; and
- (c) for residential consumers, loss of perishable items, loss of heating and hot water, and revenue for consumers who work from home.

¹ Electricity Distribution Services Default Price-Quality Path Determination 2020.

- 7.2 Vector's contraventions of the Quality Standards for the 2017 to 2020 Assessment Periods have caused significant loss to consumers.
- 7.3 The parties have not been able to agree on a quantification of the loss. However, the parties have agreed that the extent of loss caused by the contraventions is at least equivalent to the penalty that the parties intend to propose (\$1,810,000 before discount) and that the extent of loss caused by the contraventions is such that the proposed penalty is warranted.

8. CIRCUMSTANCES OF THE CONTRAVENTIONS

- 8.1 Vector is the largest EDB in New Zealand.
- 8.2 There has been a material deterioration in Vector's service quality in the 2015 to 2020 Assessment Periods from the relevant reference period (Vector's recent performance is reflected in the table in paragraph [6.9] above). SAIDI peaked in the 2018 Assessment Period at 226 minutes and improved from the peak in the 2019 and 2020 Assessment Periods.
- 8.3 Vector has previously contravened the Quality Standards for the 2015 and 2016 Assessment Periods (**Earlier Contraventions**). The Earlier Contraventions were the subject of court proceedings. The Court accepted that the recommended penalty agreed between the Commission and Vector of \$3,575,000 was appropriate for those contraventions (the **Previous Proceedings**).
- 8.4 The recommended penalty agreed between Vector and the Commission relates solely to Vector's conduct in the 2017 to 2020 Assessment Periods. The parties agree that the combined penalties imposed in the Previous Proceedings and recommended in this proceeding appropriately reflect the totality of Vector's

conduct that resulted in the contraventions in the 2015 to 2020 Assessment Periods.

- 8.5 In 2017, the Commission engaged Nuttall Consulting to produce a report on the circumstances of the Earlier Contraventions. That report identified a number of factors that contributed to the contraventions and made recommendations to address those. The report also acknowledged that, since the first year of non-compliance in the 2015 Assessment Period, Vector had taken some steps towards compliance, although Nuttall considered more work was required to bring Vector back into compliance. On 12 October 2018, Vector and the Commission signed an agreed summary of facts recording the circumstances of the contraventions.
- 8.6 The 12 October 2018 agreed summary of facts recorded failures by Vector to meet good industry practice including in relation to governance of compliance with the quality standards, asset lifecycle management practices, reliability management, vegetation management, arrangements with field service providers, and the mitigation of the effect on SAIDI of changed health and safety practices.
- 8.7 Following the Earlier Contraventions, Vector has taken a number of steps to address its non-compliance with the Quality Standards.
- 8.8 However, a number of those steps were implemented too late to prevent the contraventions in the 2017 to 2020 Assessment Periods. The delay in implementing these measures and other aspects of Vector's conduct described below were not in accordance with good industry practice.
- 8.9 Vector accepts it is at fault for failing to meet these aspects of good industry practice and those failures have caused each of Vector's Quality Standard contraventions or caused that contravention to be greater than it would otherwise have been.

- 8.10 Vector accepts that the degrees to which it has fallen short of good industry practice are such that they warrant the penalty that the parties have agreed to recommend to the Court.
- 8.11 Particular instances of Vector failing to act in accordance with good industry practice are as follows.

Governance of compliance with the quality standards

- 8.12 From the 2017 Assessment Period onwards, Vector has taken a number of steps to improve governance of compliance with the quality standards.
- (a) restructuring the Networks business unit in the 2019 Assessment Period to strengthen the focus of the management team, which included redefining senior management roles to ensure specific single points of accountability of the Quality Standards;
 - (b) changing the way compliance risk was managed in its Network business unit in the 2016 Assessment Period and elevating the risk of quality standard compliance to an enterprise-level risk status (i.e. the risk is annually assessed and reported to the Board Risk Assurance Committee and the Executive Risk and Assurance Committee); and
 - (c) implementing a field services provider enablement strategy including the establishment of the Helensville Depot (which can reduce response distances for faults for parts of Vector's Northern network), introducing shifts for coverage of faults on the Auckland network to ensure first responders are available overnight, and introducing dedicated and locationally zoned fault first-response crews to reduce the impact of traffic congestion on fault response times.

- 8.13 However, the most significant actions were implemented in the 2019 and 2020 Assessment Periods. As a result:
- (a) those actions are not relevant to the contraventions in the 2017 and 2018 Assessment Periods; and
 - (b) the Quality Standards were contravened to a greater extent in the 2019 and 2020 Assessment Periods than they would have been had Vector acted earlier.
- 8.14 The following aspects of Vector’s governance of compliance with the Quality Standards in the 2017 to 2020 Assessment Periods failed to meet good industry practice:
- (a) From the 2017 Assessment Period onwards Vector approved a number of funding increases to improve reliability performance. However, the funding that would have the most significant effect on improving reliability and returning the network to a compliant state was approved for the 2019 and 2020 Assessment Periods, which was too late to address the worsening performance through the DPP period.
 - (b) Given that many of Vector’s significant steps were not taken until the 2019 and 2020 Assessment Periods, Nuttall Consulting concluded that Vector considered that compliance with the quality standards was not achievable within the period of the DPP.
 - (c) The steps Vector has taken to reduce the impact of traffic congestion were taken too late and will only have a significant impact after the 2020 Assessment Period.

Asset lifecycle management practices

- 8.15 In the Previous Proceedings Vector accepted that, while its life cycle asset management practices were generally of an appropriate standard, aspects of its life cycle management practices were not in accordance with good industry practice,

including because it had failed to address the deteriorating condition/health of some assets.

8.16 In the 2017–2020 Assessment Periods Vector took significant steps to address the deterioration of its assets, including:

(a) increasing and prioritising corrective and preventative asset maintenance and replacement funding to improve reliability performance from the 2017 Assessment Period onwards; and

(b) establishing qualitative risk models for its key asset types.

8.17 However, there was a noticeable worsening of some equipment failures between the 2017 and 2019 Assessment Periods, suggesting Vector still failed to put sufficient measures in place to address increasing equipment failure incidents.² Many of the steps Vector has taken could have been taken earlier and funding accelerated further over the 2017 to 2019 Assessment Periods.

8.18 Vector’s delay in taking steps to address the equipment failure incidents was not in accordance with good industry practice.

Reliability management

8.19 In the Previous Proceedings, the parties agreed that certain aspects of Vector’s reliability management broadly met good industry practice, including its data systems and reliability reporting. However, Vector also accepted that aspects of its approach to managing reliability did not meet good industry practice, including its failure to implement a strategic reliability management plan (**SRMP**). In the 2020 Assessment Period, Vector implemented a SRMP that largely addressed this issue. However, aspects of Vector’s approach to managing reliability in

² The worsening in SAIDI was primarily driven by Customer Average Interruption Duration Index (**CAIDI**), not SAIFI, but the SAIFI movement suggests that the actions Vector took before the 2019 Assessment Period had not sufficiently arrested the aging of the network.

the 2017 to 2020 Assessment Periods failed to meet good industry practice, in that Vector failed to:

- (a) Undertake the major investigations required to develop a SRMP until the 2019 Assessment Period. A major review should have been occurring between the 2016 and 2017 Assessment Periods, with a formal documented recovery plan in place by no later than the 2018 Assessment Period.
- (b) Implement the SRMP until the 2020 Assessment Period. The resulting improvements in SAIDI will only take effect after the period with which these proceedings are concerned.

Vegetation management

- 8.20 Faults caused by vegetation are a substantial cause of outages for all EDBs in New Zealand.
- 8.21 Since the Earlier Contraventions, Vector has taken significant steps to address increasing vegetation-related incidents, in the form of continuing its top 40 worst performing feeders programme, implementing its vegetation management strategy, improving its management of out-of-zone vegetation, increasing its vegetation management expenditure, and steps to improve its arrangements with its vegetation service providers.
- 8.22 However, Vector's vegetation management practices in the 2017 to 2020 Assessment Periods failed to meet good industry practice because, despite the worsening trends in vegetation-related outages being apparent from the 2015 Assessment Period, the steps Vector has taken to address vegetation management, in particular its increase in expenditure on vegetation, were taken too late to bring SAIDI from vegetation issues in line with the reference period.

Field service providers

- 8.23 In the Previous Proceedings Vector accepted that, while its contractual arrangements with its field service providers (**FSPs**) generally met good industry practice, aspects did not such as Vector's contracts with FSPs not including incentives focussed on the duration of supply interruption or penalties for poor performance, and the roles and responsibilities for delivery of field services placed too much responsibility on FSPs to identify and prioritise work.
- 8.24 Since the Earlier Contraventions, Vector has established a fault response duration incentive scheme with its FSPs, and has taken steps to increase the responsibility of Vector to identify and prioritise its corrective and preventative maintenance and replacement programmes.
- 8.25 However, Vector's fault response duration incentive scheme with its FSPs was not introduced until the 2020 Assessment Period, despite Vector being on notice that the average duration of outages was increasing throughout the DPP period. The field service provider incentive scheme should have been negotiated with FSPs sooner.
- 8.26 Vector's delay in implementing the field service provider incentive scheme was not in accordance with good industry practice.

Health and safety changes

- 8.27 During the DPP period, Vector implemented changes to its health and safety practices that substantially increased the duration of outages. The most significant was to limit the circumstances in which Vector and its FSPs undertook to work on energised lines ("live" lines). In the Previous Proceedings Vector and the Commission agreed that, while the health and safety practices implemented by Vector were within the scope of good industry practice, they represented a relatively risk-averse approach with regard to managing safety risks. Vector accepted that it had

failed to act in accordance with good industry practice by omitting to take steps open to it to mitigate or prevent the effect on SAIDI of those changed health and safety practices.

- 8.28 The changes to Vector's health and safety practices were also a major contributor to Vector's contravention of the Quality Standards in the 2017 to 2019 Assessment Periods.
- 8.29 Vector's health and safety changes account for an average of 59% of the SAIDI exceedance and all the SAIFI exceedance arising from planned outages over the 2017 to 2019 Assessment Periods.
- 8.30 However, when the effects of the changes in health and safety practices are excluded, Vector still exceeded the SAIDI Limits in each of the 2017 to 2020 Assessment Periods.
- 8.31 Since the Earlier Contraventions, Vector has made further changes to its health and safety practices:
- (a) In 2019 Vector conducted a review with its FSPs in respect of live line work, resulting in changes to its practices that seek to reduce planned SAIDI. Vector did not act in accordance with good industry practice by implementing these changes to mitigate the effect of its health and safety practices later than it could have. The review was conducted in 2019, while Vector's health and safety practices were introduced in 2016.
 - (b) In the 2017 Assessment Period Vector implemented a temporary 'do not operate live' switchgear restriction (**DNOL**) on certain switchgear assets the condition of which was uncertain as Vector did not have documented maintenance records because of a poor handover of records during field service provider contract changes. Targeted maintenance plans were developed to rectify the condition uncertainty. The maintenance was completed in the 2019 Assessment Period and the DNOL restriction lifted. Vector's response to the uncertain asset condition by implementing

the DNOL restriction was good industry practice, but the failure to maintain documented maintenance records which led to the uncertain asset condition was not in accordance with good industry practice, and was a matter within Vector's control.

8.32 During the period the Assessment Periods, the contribution of health and safety changes to SAIDI were as follows:

Contribution of health and safety changes to SAIDI over Assessment Period 2017 to 2019				
	2017	2018	2019	Average
Total – Reduction in live line	23.9	29.4	30.8	28.0
Total – do not operate live (switchgear)	12.2	13.9	0.3	8.8
Total – isolated for safety (reported line down)	18.6	28.2	5.6	17.5
Total – non-visible breaks	1.5	1.9	1.2	1.5
Planned total	28.9	35.3	28.1	30.8
Unplanned total	27.2	38.1	9.8	25.0
Total	56.1	73.3	37.9	55.8

8.33 The effect on SAIFI during the period was as follows:

Contribution of health and safety changes to SAIFI over Assessment Period 2017 to 2019				
	2017	2018	2019	Average
Total – Reduction in live line	0.129	0.147	0.132	0.136
Total – do not operate live (switchgear)	0.053	0.076	0.003	0.044
Total – isolated for safety (reported line down)	0.441	0.589	0.143	0.391
Total – non-visible breaks	0.000	0.000	0.000	0.000

Planned total	0.132	0.165	0.115	0.137
Unplanned total	0.491	0.646	0.164	0.434
Total	0.623	0.811	0.278	0.571

Planned outages

- 8.34 Planned outages were a significant contributor to the exceedances over the 2017 to 2019 Assessment Periods. They accounted for 37.1 minutes (or 39%) of the total SAIDI exceedance and 0.165 (32%) of the total SAIFI exceedance on average over those years.
- 8.35 Almost all of the planned outage exceedance resulted from planned outages due to maintenance and replacement of the underground network and maintenance and replacement of the overhead network.

Planned and unplanned SAIDI in Assessment Period 2017–2019				
	2017	2018	2019	Average 2017–2019
Planned SAIDI	29.8	43.3	38.3	37.1
Unplanned SAIDI	144.2	182.7	159.9	162.3
Total	174.0	226.0	198.2	199.4
Planned SAIDI as percentage of total	17.1%	19.2%	19.3%	18.5%

Financial benefit from contraventions

- 8.36 During the 2017 to 2020 Assessment Periods, Vector failed to incur the expenditure required to comply with the Quality Standards. If Vector had incurred the expenditure required,

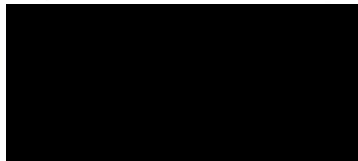
Vector's return on investment during that period would have been lower.

9. ADDITIONAL MATTERS THE PARTIES HAVE TAKEN INTO ACCOUNT IN RECOMMENDING THE PENALTIES

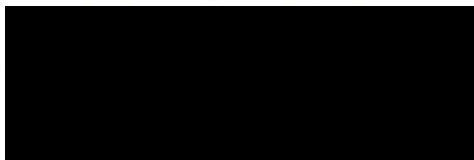
9.1 In addition to the matters described above, in recommending the penalties the parties have also taken into account:

- (a) Vector's cooperation and admissions of liability;
- (b) Vector's assistance with the Commission's investigation and in particular its voluntary provision of information and its preparation of a report regarding its contraventions;
- (c) Vector's service level payments to consumers, amounting to \$563,156 over the course of the 2017 to 2020 Assessment Periods; and
- (d) Vector's openness with the Commission regarding future compliance generally.

Dated this 31st day of August 2022



Esther Watt
Counsel for plaintiff



Stephen Hunter QC
Counsel for defendant