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15 November 2024

Ben Woodham
Electricity Distribution Manager
Commerce Commission
Wellington 6140
By email: infrastructure.regulation@comcom.govt.nz

Dear Ben

Catastrophic event allowance application for Cyclone Gabrielle

This is Vector's application to recover costs associated with Cyclone Gabrielle incurred in RY23 through the catastrophic event allowance under clause 4.5.1 of the Input Methodologies (IM) Determination.

Vector has taken the following approaches in line with the Commission's advice in its letters dated 20 October 2023 and 11 April 2024:

- Treated Cyclone Gabrielle and the Auckland Anniversary Weekend Flooding as separate events; and
- Treated the "additional net costs" recoverable through the catastrophic event allowance (limb (a) of the definition) as limited to the IRIS penalty amounts rather than the difference between the BBAR amounts with and without the catastrophic event.

However, we strongly encourage the Commission to reconsider these approaches for the reasons discussed in our application. In particular, we are concerned the current approach will not allow Vector to recover the capex IRIS penalty. This is because capex incurred in RY23 was not settled as commissioned assets until RY24 and Vector can only meet the materiality threshold for RY23. This outcome appears contrary to the intent of the allowance.

We have set out below –

- The materiality threshold; and
- The costs Vector is seeking to recover through the catastrophic event allowance.
- The re-opener criteria and supporting evidence Vector has provided or referred to.is provided in Appendix One.

Our application provides more detail on these calculations and how Vector has met the IM criteria.

Materiality threshold

The costs incurred in responding to Cyclone Gabrielle meet the materiality threshold specified in clause 4.5.1(d)(iv) of the IMs.

Year	FNAR DPP3	BBAR impact on remaining period of DPP3	Δ > 1% FNAR?
2023	$404,312,000	$6,698,647	Yes

Costs recoverable under the allowance

Vector seeks to recover its additional net costs (in line with limb (a) of the definition of catastrophic event allowance) and the impact of the catastrophic event on our quality incentive adjustment (in line with limb (c) of the definition).

Additional RY23 net costs based on amounts not recovered through IRIS

	RY23
Opex	$1,712,754
Capex	-

The impact of the catastrophic event on the quality incentive adjustment

	With catastrophic event	Without catastrophic event	Difference Vector seeks to recover
Quality incentive adjustment	($1,650, 015)	($1,249,678)	$400,337

Re-opener criteria and supporting evidence

Appendix One in our application summarises the re-opener criteria, our assessment of why each criterion is met, and the supporting evidence we rely on.

Yours sincerely

[redacted]

Richard Sharp
GM Economic Regulation and Pricing

Table of contents

Executive summary

1 This is Vector's application for a catastrophic event allowance to recover the costs Vector prudently incurred in responding to the state of emergency between 27 January 2023 and 14 March 2023 due to extreme weather. That state of emergency commenced with the severe flooding in Auckland on 27 January 2023 (***January floods***), included Cyclone Gabrielle from 11-17 February 2023, and ultimately concluded on 14 March 2023.

2 For the purposes of this application, Vector has isolated the costs associated with Cyclone Gabrielle incurred in regulatory year (RY)2023.

3 In our view, the January floods and Cyclone Gabrielle should be treated as a single catastrophic event given they constituted a single and continuous state of emergency, their proximity in time, cumulative impacts, and the practical challenges involved in isolating the separate effects of the January floods and Cyclone Gabrielle.

4 This application is for the costs associated with Cyclone Gabrielle incurred in RY2023 based on discussions we have had with the Commission around the materiality threshold under the Input Methodologies Determination (IM). However, we encourage the Commission to treat the costs of the January floods and the Cyclone as one event. If the Commission agrees with this approach, we will provide updated figures to seek to recover costs associated with both the floods and the Cyclone.

5 Both the January floods and Cyclone Gabrielle were unprecedented natural disasters. January 2023 was Auckland's wettest month since records began, recording 280mm on 27 January alone and a total of 539mm for January. Cyclone Gabrielle was comparable in its impacts to Cyclone Bola (1988) and Cyclone Giselle (1968) and is amongst the most damaging storms in New Zealand's history. Both the January floods and Cyclone Gabrielle would have constituted "extreme events" under Schedule 3.3 of the DPP3 determination, as the events resulted in more than six million customer interruption minutes in a 24-hour period, except for the fact that they constituted natural disasters which is an exclusion under the extreme event definition.

6 The period of extreme weather during the state of emergency resulted in a large number of faults and outages on the network and damaged or destroyed network assets. Vector incurred significant costs in responding, including principally:

6.1 service interruptions and emergencies opex to respond to outages and faults on the network;

6.2 asset replacement and renewal capex to repair or replace damaged or destroyed network assets;

6.3 additional vegetation management opex;

6.4 maintenance and inspection opex as a result of undertaking rapid inspections to identify potential network failures, safety issues, vegetation impacts and ground movements.

7 The majority of the expenditure was 'exceptional' reactive maintenance undertaken by our field service providers (FSPs), Omexom and Northpower.[1] Our field service agreements provide for FSPs to undertake any required reactive maintenance at a fixed price. However, in circumstances where adverse weather and resulting faults exceed specified thresholds, FSPs are remunerated for the additional costs they incur in undertaking this exceptional maintenance.

8 The January floods and Cyclone Gabrielle were high impact / low probability events, the costs associated with which were not included in the forecasts used to determine the DPP3 opex and capex allowances.

9 The catastrophic event reopener allows for reconsideration of the price-quality path to allow for recovery of:

9.1 additional costs forecast to be incurred between the effective date of an amendment to the DPP determination following reconsideration and the end of the current regulatory period; and

9.2 costs prudently incurred in responding to the catastrophic event between the date of the event and the effective date of the amendment to the DPP determination (**catastrophic event allowance**).

10 Vector is applying for a catastrophic event allowance to recover:

10.1 additional net costs prudently incurred in responding to the catastrophic event; and

10.2 the impact on Vector's quality incentive adjustment.

11 Vector is not seeking an amendment to its quality standards. Vector failed to comply with the quality standards in the 2023 assessment period due to the impact of the January floods and Cyclone Gabrielle. But for the catastrophic event, Vector would have comfortably complied. The Commission issued a compliance advice letter in relation to the 2023 assessment period in September 2024.

12 In the 2024 assessment period, Vector exceeded the extreme event quality standard threshold of six million customer minutes. Our investigation found these outages likely resulted in damage caused by Cyclone Gabrielle. This would be considered a 'major external factor' excluded from the extreme event quality standard. However, due to the complex nature of these events we cannot state this with absolute certainty, so we have published an extreme event report in line with the requirements of the determination.

13 Vector expects to comply with the quality standards in the 2025 assessment period.

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[1] In terms of the Commission's expenditure categories, this is a combination of service interruptions and emergencies opex and asset replacement and renewal capex.

Application for catastrophic event allowance

14 The Commission's letter of 11 April 2024 explains that the Commission's view is that "additional net costs", for purposes of the definition of the catastrophic event allowance, are costs that are not recovered through IRIS opex amounts carried forward or the recovery on and of capital via the capex wash-up (effectively 23.5% of additional opex and capex incurred responding to the catastrophic event).

15 The Commission's letter invites further engagement on this question of interpretation.

16 In our view, the better interpretation is that "additional net costs" comprises at least the difference between building blocks allowable revenue with and without the costs incurred responding to the catastrophic event. In other words, the additional net costs are calculated on the same basis as the BBAR adjustment approach used to assess the materiality threshold (see further below). This is because:

16.1 IRIS penalties are not 'costs' incurred in responding to an event. IRIS penalties are adjustments to allowable revenue in future disclosure years that represent the sharing of over- or under-spend with consumers relative to capex and opex allowances. The costs incurred in responding to the event are capex and opex and, if those costs had been included in allowances used to set the price path, Vector would recover depreciation, WACC and opex in respect of those costs;

16.2 taking a building blocks approach would result in catastrophic event allowances having a symmetrical treatment to the forward-looking reopening of the price path, which is more consistent with the purpose of the allowance. When the price path is amended on a forward-looking basis, the Commission amends FNAR/ANAR, which therefore allows Vector to recover costs attributable to the catastrophic event on a building blocks basis. We do not see why the catastrophic event allowance would result in a different approach to assessing costs to that which would apply on a forward-looking basis;

16.3 taking a building blocks approach aligns the value of the recoverable costs to the approach used to determine the materiality threshold. Again, we don't see why materiality would be measured on a building blocks basis, but then a much lower amount awarded through the allowance; and

16.4 the Commission's approach assumes that EDBs are agnostic as to the timing of cashflows. The Commission's approach is neutral in NPV terms, but the recovery of those costs is deferred into DPP4. EDBs are not neutral as to the timing of cashflows as timing of cash affects financeability. While the amounts in this case are not substantial in the context of Vector's overall revenue allowance, in an event that resulted in more substantial costs (e.g. an earthquake) the timing of cashflows from the date of the event onwards would be very significant.

Recovery of the capex IRIS penalty

17 Furthermore, under the current approach, Vector will be unable to recover its capex IRIS penalty through the catastrophic event allowance:

- Vector's application is limited to RY23 as it would be unable to meet the materiality threshold if RY23 and RY24 FNAR is combined.

- The capex IRIS penalty is calculated based on the value of commissioned assets. Although Vector incurred significant capex responding to the Cyclone in RY23, this expenditure was not actually settled until RY24.

- This is because the Cyclone occurred near the end of RY23 so there was insufficient time for this expenditure to actually be commissioned until RY24 (given the intensive storm response FSPs are unlikely to have had time to even invoice Vector for the work undertaken).

18 Our understanding is the Commission intends the catastrophic event allowance be neutral in NPV terms. However, Vector will not be left NPV neutral if it still incurs a capex IRIS penalty in RY24 for spend incurred in RY23. This would be a perverse outcome.

19 If this outcome is maintained it risks incentivising EDBs to prioritise opex over capex in responding to catastrophic events as they will have greater confidence in being able to recover opex IRIS penalties through the allowance (since the same timing issue between incurring capex and commissioning the asset will not arise).

20 We are also concerned this will undermine the integrity of the catastrophic event allowance where the timing of the catastrophic event (i.e. near the end of a regulatory year) can significantly alter an EDBs ability to recover its costs.

21 Accordingly, we recommend at a minimum the Commission allow Vector to recover the IRIS penalties for expenditure incurred in RY23 (which, for capex, would include the RY24 capex IRIS penalty). We consider this is permissible under the IMs which define the "additional net costs" as those "incurred in or relating to the period between a catastrophic event and the effective date of an amendment to the DPP." The RY24 capex IRIS penalty relates to expenditure incurred in RY23 responding to the catastrophic event.

22 Otherwise, the intent of the catastrophic event allowance will not be met and Vector will be penalised under the capex IRIS solely for prudent expenditure incurred addressing Cyclone Gabrielle.

23 For purposes of this application, Vector has adopted the Commission's preferred approach but invites the Commission to reconsider its position. The additional net costs Vector seeks to recover are set out in **Table One**.

Table One: additional RY23 net costs based on amounts not recovered through IRIS (RY25 present values)

RY25$	RY2023
Opex	$1,712,754

Note: the penalty values above are stated in RY25$ assuming they would be added as an RY25 accrual in the revenue washup account

24 In addition, in the absence of the catastrophic event, Vector would have complied with its quality standards in the 2023 assessment period, resulting in a reduced quality incentive adjustment. Vector therefore also applies for an amount representing the difference between the quality incentive adjustment with and without the catastrophic event, as set out in **Table Two** below.

Table Two: quality incentive adjustment with and without catastrophic event

	With catastrophic event	Without catastrophic event	Difference Vector seeks to recover
Quality incentive adjustment	($1,650,015)	($1,249,678)	$400,337

Reopener criteria

25 Clause 4.5.6 of the IMs provide that a DPP may be reconsidered by the Commission if the EDB satisfies the Commission that a catastrophic event has occurred. "Catastrophic event" is defined in clause 4.5.1 as an event:

(a) beyond the reasonable control of the EDB;

(b) in relation to which expenditure is not explicitly or implicitly provided for in the DPP;

(c) that could not have been reasonably foreseen at the time the DPP was determined; and

(d) in respect of which—

(i) action required to rectify its adverse consequences cannot be delayed until a future regulatory period without quality standards being breached;

(ii) remediation requires either or both of capital expenditure or operating expenditure during the regulatory period;

(iii) the full remediation costs are not provided for in the DPP; and

(iv) in respect of an EDB subject to a DPP, the cost of remediation net of any insurance or compensatory entitlements has had or will have an impact on the price path over the disclosure years of the DPP remaining on and after the first date at which a remediation cost is proposed to be or has been incurred, by an amount equivalent to at least 1% of the aggregated forecast net allowable revenue for the disclosure years of the DPP in which the cost was or will be incurred.

26 Several of those criteria overlap or are duplicative.

27 Clause 4.5.9 of the IMs provides that the Commission, if it is satisfied a catastrophic event has occurred, may amend either or both of the price path or the quality standards. However, the Commission will not amend the price path more than is reasonably necessary to mitigate the effect of the catastrophic event on price.

28 As part of reconsidering the price path, the Commission may specify a catastrophic event allowance, which is a recoverable cost under clause 3.1.3(1)(m). Catastrophic event allowance means—

the amount determined by the Commission for—

(a) additional net costs (over and above those provided for in a DPP determination or CPP determination) prudently incurred by an EDB in responding to a catastrophic event, other than costs that are foregone revenue;

(b) *recoverable costs and pass-through costs the EDB was permitted to recover under the applicable DPP determination or CPP determination through prices, but did not recover due to a catastrophic event; and*

(c) *the impact of a catastrophic event on any quality incentive adjustment,*

incurred in or relating to the period between a catastrophic event and the effective date of an amendment to the DPP or CPP following reconsideration of the price-quality path under clause 4.5.6(1)(a)(i) or clause 5.6.7(2)(a).

29 The Commission has explained that, in the context of a reopener application, the primary question is whether the IM requirements for a reopener are met. In this application we explain:

29.1 how the state of emergency between 27 January and 14 March, incorporating the January floods and Cyclone Gabrielle, meets the definition of catastrophic event; and

29.2 the costs Vector has incurred in responding to the catastrophic event that we seek to recover via a catastrophic event allowance.

30 **Appendix One** to this application summarises the criteria, our assessment of why they are met, and the supporting evidence to which we refer.

Definition of catastrophic event

31 For purposes of this application, we have defined the catastrophic event as the period of extreme weather between 8 February 2023 and 17 February 2023, resulting from Cyclone Gabrielle. This comprises the time it became known Cyclone Gabrielle would likely be a significant event for the North Island until the tail of the storm. We have taken this approach due to discussions about the materiality threshold in the IMs and uncertainty around whether the period of extreme whether resulting from Auckland floods and Cyclone Gabrielle can be treated as one event.

32 However, we consider the better approach would be to define the catastrophic event as the period of extreme weather between 27 January 2023 and 17 February 2023, including the January floods and Cyclone that resulted in Auckland being subject to a continuous state of emergency between the dates of 27 January 2023 and 14 March 2023. This is because:

32.1 the concept of an "event" is not defined in the IMs, but the term is sufficiently broad to capture a series of proximate and related occurrences with a related cause or impacts;

32.2 in this case, the "event" in question was a period of unprecedented extreme weather that resulted in a continuous state of emergency between 27 January and 14 March, incorporating two significant natural disasters: the January floods and Cyclone Gabrielle;

32.3 the January floods and Cyclone Gabrielle were proximate in time, taking place within a period of three weeks;

32.4 the impact on Vector's network was essentially continuous. Auckland suffered major flooding on 27 January and then further flooding on 1 February. By 8 February it was apparent Cyclone Gabrielle would be a major event for Auckland;

32.5 both the January floods and Cyclone Gabrielle occurred under a continuous regional and then national state of emergency declared on 27 January 2023. That state of emergency was extended on 3 February and again on 9 February. The state of regional emergency was superseded by the declaration of a national state of emergency on 14 February 2023. That national state of emergency was terminated on 14 March 2023; and

32.6 the impacts of the January floods and Cyclone Gabrielle were closely connected and cumulative. Damage to the network that was immediately caused by Cyclone Gabrielle was made more likely or exacerbated by damage to assets suffered in the January floods, as well as continuation inundation and wet ground conditions that precipitated further damage to assets; and

32.7 the costs of responding to that period of extreme weather cannot be precisely attributed to either event. Some proportion of the costs incurred during and subsequent to Cyclone Gabrielle would also be partly or wholly attributable to the January floods. For example, damage suffered as a result of Cyclone Gabrielle was made more likely as a result of ground inundation in the prior weeks.

33 In light of those factors, it is appropriate to treat the period of extreme weather that included the January floods and Cyclone Gabrielle and comprised a continuous state of emergency for the Auckland region from 27 January to 14 March as a single catastrophic event for purposes of a catastrophic event reopener.

34 If the Commission accepts this interpretation, we will provide updated costs to include those associated with the Auckland floods.

35 As described above, the impact on Vector's network from the floods and the cyclone was continuous. Accordingly, our discussion below of how Cyclone Gabrielle meets the IM criteria includes discussion of the Auckland storms which had a significant impact on how the network was affected by Cyclone Gabrielle.

Clause 4.5.1(a): Event beyond Vector's reasonable control

36 The January floods and Cyclone Gabrielle were historically unprecedented natural disasters, beyond Vector's control and ability to prevent or further mitigate.[2]

37 On Friday 27 January 2023, a sustained torrential rain downpour caused flash flooding in the Auckland area, particularly in West Auckland and the North Shore. Central Auckland received 280mm of rain in 24 hours, 211mm of which fell in under 6 hours.[3] Mayor Wayne

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[2] For further detail see: Vector, *Vector's unplanned interruptions reporting for the 2023 assessment period* (24 August 2023), available at: https://blob-static.vector.co.nz/blob/vector/media/vector-2023/2023-vector-unplanned-interruptions-reporting.pdf.

[3] https://niwa.co.nz/news/auckland-suffers-wettest-month-in-history.

Brown declared a State of Regional Emergency in Auckland at about 9:30 pm local time on 27 January. It was the first time a State of Regional Emergency has been declared in Auckland since the current system was introduced in 2002. The Auckland flooding has since been described by NIWA as "at least a 1-in-200 year event".

38 The flooding event was a compounding influence on the high rainfall earlier in the month, with the city receiving a total of 539mm in rain for January. This is "the wettest month since records began" and 45% of Auckland's yearly rainfall in just one month (the average annual being 1,190mm).[4]

39 The wet ground conditions over January contributed to the high number of outage events, causing the SAIDI and SAIFI Major Event (ME) thresholds to be exceeded on 27 January. The ME captured 68 events over a 52-hour period resulting in Raw SAIDI of 22.5 minutes.

40 More torrential rainfall occurred on the morning of 1 February, four days after the first flooding event, resulting in further flooding in the city, where, in many parts, flood damage to infrastructure had not been repaired. This additional flooding event caused a significant number of simultaneous separate outage events triggering a SAIFI ME. This SAIFI-only ME captured 41 events over a 24-hour period which incurred 0.00377 capped SAIFI but 3.8 minutes of uncapped SAIDI.

41 On 8 February it became known that tropical Cyclone Gabrielle was likely to be a significant event for the upper North Island and would have even more of an impact as the network had not fully recovered from the wet conditions caused by the January wet weather and Auckland floods. Vector had not been able to complete its full review of assets impacted by the flooding event prior to the cyclone arrival.

42 On 9 February, the state of regional emergency was extended in Auckland and the Coromandel in anticipation of the impact of Cyclone Gabrielle. Given the impending arrival of Cyclone Gabrielle Vector readied its business operations to prepare for storm response mode and on 9 February issued a "Storm Warning" to our inbound channels including contact centre and our FSPs. Planned works were halted to reserve field resources and field crews from outside our region were enabled (i.e., qualified outside resources were granted permissions) to work on our network.

43 On 11 February we formally entered "Storm Standby" (emergency response mode). Over 12 and 13 February there were 199 high voltage outage events on the network. Wind gusts of up to 130-150 km/h were regularly recorded at the most exposed sites in Auckland.[5] The ME threshold was triggered and captured 312 high voltage events from 13h00 11 February to 10h00 16 February. Raw SAIDI totalled 271 minutes for that period. At the peak of Cyclone Gabrielle, 45,000 ICPs were without supply and during the five-day period of the storm response more than 150,000 unique ICPs (circa 25% of the total customer base) experienced an outage event.

44 Cyclone Gabrielle was said by NIWA to have "passed just offshore of the northern North Island, exposing much of the island to extreme rainfall and river flooding not seen in many

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4 https://niwa.co.nz/news/auckland-suffers-wettest-month-in-history.

5 https://blog.metservice.com/TropicalCycloneGabrielleSummary.

years, catastrophic wind damage, and substantial storm surge".[6] This led to the government declaring a state of national emergency on 14 February, one of only three times this has ever been used.

45 Despite the Cyclone Gabrielle major event officially closing on 16 February for reliability reporting, there was a demonstrable tail to the impacts of Gabrielle and our official storm response. Our official storm response activities were not closed until 3 March. A further 9.68 SAIDI minutes were contributed from the tail of the storm from 17 February to the end of our operational storm response on 3 March. At the time, Vector was still managing fatigue protocols, continued to suspend all planned capital works, and was still managing the restoration effort from the cyclone event and the earlier flood events in January.

Clause 4.5.1(b): Expenditure is not explicitly or implicitly provided for in the DPP

46 **Appendix Two** summarises the costs incurred in responding to the catastrophic event.

47 The January floods and Cyclone Gabrielle were extreme events with no historic precedent. More rain fell on Auckland in January 2023 (539mm) than in any month on record, exceeding by 119mm the previous record (420mm) set in February 1869. Similarly, Cyclone Gabrielle was a disaster of historically significant impact, comparable only to Cyclone Bola in 1988, Cyclone Giselle in 1968 and the "Cyclone of 1936".[7]

48 NIWA described the January floods as a 1-in-200 year event. Similarly, NIWA's analysis shows that Cyclone Gabrielle was one of the most intense storms to pass near New Zealand's coastline since at least 1950.

49 Given the high impact / low probability nature of these events, the capex and opex allowances in the DPP determination did not explicitly or implicitly include an allowance for an event of this magnitude.

50 The opex allowance for the DPP3 was determined using the Commission's base-step-trend forecast methodology. The Commission adopted 2019 as the base year. As 2019 did not include a comparable event, opex attributable to the catastrophic event was not included in the base year. The Commission also did not apply any step changes to reflect opex attributable to a catastrophic event. None of the trend factors capture this opex.

51 As regards capex, the Commission utilised EDBs' 2019 AMP forecasts as a starting point. Vector's 2019 AMP did not include in the asset replacement and renewal capex forecast an expectation of adverse weather events on the scale seen in 2023. In contrast, our 2024 AMP includes a significant uplift in reactive expenditure ($71m) as a result of increasing significant adverse weather events.[8]

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[6] https://niwa.co.nz/sites/niwa.co.nz/files/Climate_Summary_February_2023_NIWA-web.pdf.

[7] https://niwa.co.nz/monthly/climate-summary-february-2023.

[8] 2024 AMP, section 15.3.1, page 281.

Clause 4.5.1(c): Event could not have been reasonably foreseen when DPP was determined

52 Given the historically unprecedented nature of the January floods and Cyclone Gabrielle, the occurrence of this catastrophic event within the planning horizon of the DPP could not have been reasonably foreseen.

53 Similarly, it was reasonable for the DPP capex and opex allowances not to include an allowance for the expenditure required to respond to an event of this magnitude.

Clause 4.5.1(d)i): Action could not have been delayed without quality standards being breached

54 Clause 4.5.1(d)(i) provides that a catastrophic event is one in respect of which "*action required to rectify its adverse consequences cannot be delayed until a future regulatory period without quality standards being breached*".

55 The principal adverse consequences of the period of extreme weather that included the January floods and Cyclone Gabrielle were:

55.1 a large number of faults and outages that required an immediate response in order to restore supply to consumers;

55.2 damage to, and destruction of, network assets; and

55.3 increased risk of further asset failure, as well as safety risks.

56 The actions that Vector took to rectify those adverse consequences were principally:

56.1 emergency fault response to restore supply to consumers;

56.2 replacement and renewal of destroyed or damaged network assets; and

56.3 rapid inspections to assess safety risks as well as risk of further asset failure.

57 Even with those actions Vector breached its unplanned SAIDI quality standard, which demonstrates that, in the absence of those actions, the impact on quality standards would have been substantially greater. Conversely, absent the January floods and Cyclone Gabrielle, Vector would have complied with its quality standards in RY23.

58 On 26 January 2023, the day before the January floods, Vector's compliance position was as follows:[9]

[9] See Vector's Unplanned Interruptions Report for the 2023 Assessment Period, page 3. Available: https://blob-static.vector.co.nz/blob/vector/media/vector-2023/2023-vector-unplanned-interruptions-reporting.pdf

Table Three: Unplanned SAIDI and SAIFI on 26 January 2023

	Limit	Year to: 26 Jan 2023
SAIDI	104.83	78.11
SAIFI	1.3366	0.92

59 Vector manages to the quality standards by targeting performance well below the limit and monitoring its performance against low and high estimates for its full year result. Absent the floods and Cyclone Gabrielle, we expected that our full year SAIDI and SAIFI levels would be below the limits, regardless of whether a high or low estimate was applied, as shown in Figures One and Two below.

Figure One: Unplanned SAIDI performance and forecast (January 2023)

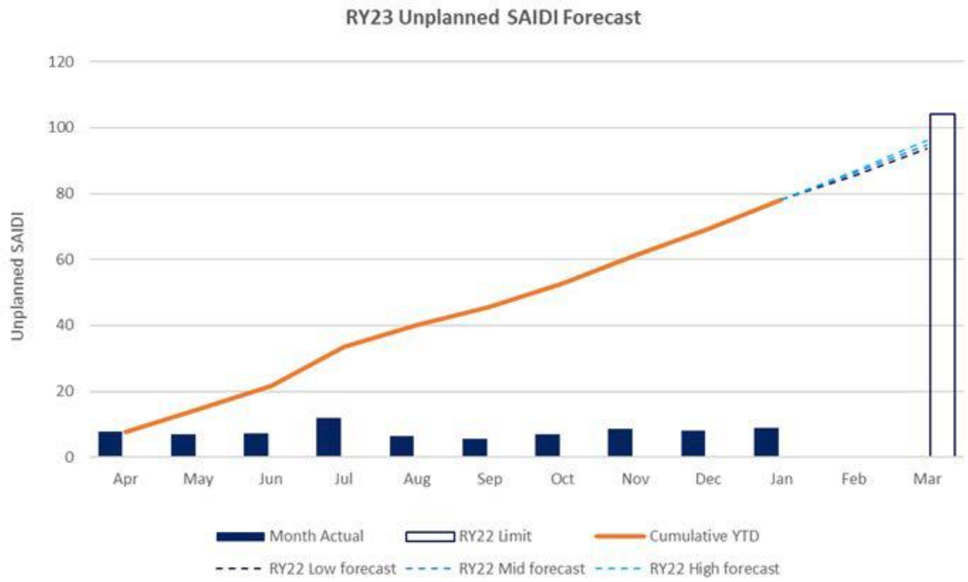
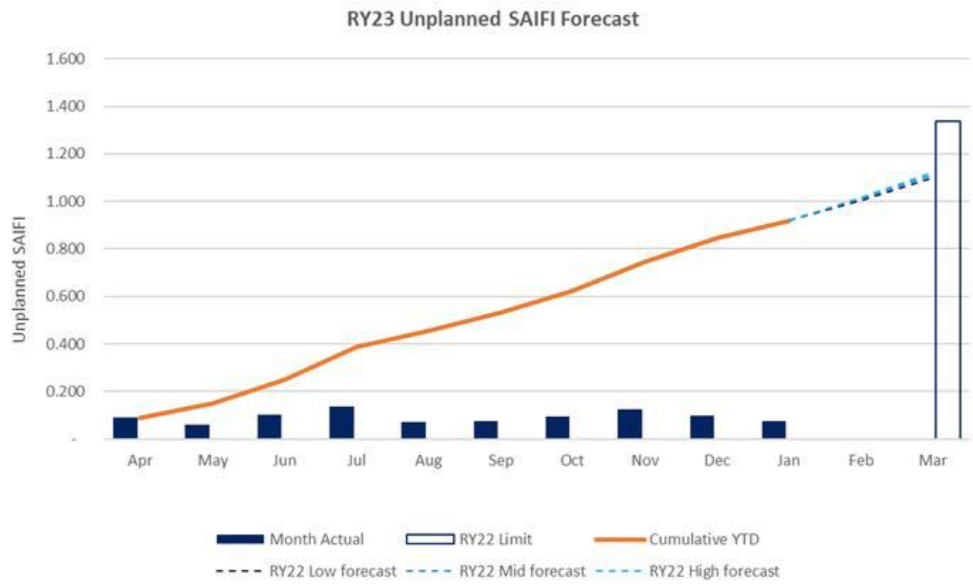


Figure Two: Unplanned SAIFI performance and forecast (January 2023)



60 Vector's final unplanned SAIDI and SAIFI for RY23 was as follows:

Table Four: Unplanned SAIDI and SAIFI RY2023

	Limit	SAIDI/SAIFI
SAIDI	104.83	118.74
SAIFI	1.3366	1.194

61 For further information on the impact of the January floods and Cyclone Gabrielle on network performance in RY23, see:

61.1 Letter from Simon Mackenzie to Vhari McWha, *Vector Limited – Quality standards for RY23 – impact of catastrophic events (Auckland floods and Cyclone Gabrielle)* (16 March 2023);

61.2 Vector, *Electricity Distribution Services 2023 Annual Compliance Statement for the assessment period 1 April 2022 – 31 March 2023* (30 August 2023);Vector, *Vector's unplanned interruptions reporting for the 2023 assessment period* (24 August 2023);

61.3 Letter from Mark Toner to Jo Lipscombe, *Re: Vector's potential quality standard contravention – assessment period 2023* (21 June 2024).

Clause 4.5.1(d)(ii): Remediation required both capital expenditure and operating expenditure

62 Remediation of the adverse impacts of the January floods and Cyclone Gabrielle required both capital expenditure and operating expenditure as further detailed in **Appendix Two**.

Clause 4.5.1(d)(iii): Full remediation costs are not provided for in the DPP

63 As described above in relation to clause 4.5.1(b), the costs Vector incurred in responding to the January floods and Cyclone Gabrielle were not explicitly or implicitly provided for in the DPP.

Clause 4.5.1(d)(iv): Cost of remediation > 1% of FNAR

64 The Commission's letter of 11 April 2024 explains that the Commission's preferred approach to determining whether the materiality threshold has been met is a BBAR adjustment approach, which effectively asks the question, how different would forecast net allowable revenue be if remediation costs had been forecast?

65 To demonstrate that the threshold test is met, Vector has input the cost of remediation (as detailed in **Appendix Two**) into the BBAR model for the affected years. See **Table Five** below.

66 There are no insurance proceeds to apply to the costs of remediating the catastrophic event.

Table Five: Materiality threshold based on BBAR adjustment

Year	FNAR DPP3	BBAR impact on remaining period of DPP3 (RY2023 – RY2025)	Δ > 1% FNAR?
RY2023	$404,312,000	$6,698,647	Yes

Definition of catastrophic event allowance

67 A catastrophic event allowance is available to recover:

67.1 additional net costs (over and above those provided for in a DPP or CPP determination) prudently incurred by an EDB in responding to a catastrophic event; and

67.2 the impact of a catastrophic event on any quality incentive adjustment.

68 Vector is seeking to recover costs incurred in RY23 only. In this section we describe the costs that Vector seeks to recover via the catastrophic event allowance.

Additional net costs prudently incurred in responding to the catastrophic event

69 As regards additional net costs, the IMs require that:

69.1 the EDB has incurred additional net costs;

69.2 over and above those provided for in a DPP or CPP determination; and

69.3 has incurred those costs prudently.

Additional net costs

70 In our view the better interpretation is that “additional net costs” comprises at least the difference between building blocks allowable revenue with and without the costs incurred responding to the catastrophic event. In other words, the additional net costs are calculated on the same basis as the BBAR adjustment approach used to assess the materiality threshold (see further below).

71 However, we have approached this application on the basis of the Commission’s preferred approach, under which the additional net costs are only the IRIS penalties attributable to the incremental capex and opex. On that approach, the additional net costs comprises only those costs that are not recovered through IRIS opex amounts carried forward or the capex wash-up adjustment, in which case the additional net costs Vector seeks to recover are set out in **Table 6.1 and 6.2**.

Table 6.1: Opex and additions costs driving IRIS penalties

	RY2023 ($000)
Opex	6,660
Additions	-

Table 6.2: RY23 Opex Penalty Calculation ($000)

$000s	RY25$	RY21	RY22	RY23	RY24	RY25	RY26	RY27	RY28	RY29	RY30
RY23 Overspend	-7,283			-6,660							
Amount Carried Forwards	5,570									6,660	
Cashflow	**-1,713**			**-6,660**						**6,660**	
Penalty %	23.5%										

Note: Discounting at 67th percentile vanilla WACC for DPP3 (4.57%)

Over and above those provided for in the DPP determination

72 As described above in relation to clause 4.5.1(b), the costs Vector incurred in responding to the catastrophic event were not explicitly or implicitly provided for in the DPP determination.

Prudently incurred

73 The IMs do not define the term “prudent”, but the Commission has generally interpreted that term to mean that it was appropriate for the EDB to incur those costs, having regard to the drivers of the expenditure.

74 In this case, the drivers of the expenditure were the need to respond to faults and outages on the network, replace damaged or destroyed assets and assess network assets for safety and reliability risks. The majority of expenditure comprised exceptional reactive maintenance to restore service and replace or repair destroyed or damaged assets.

75 Vector submits it was prudent to incur those costs in responding to the catastrophic event.

Impact on quality incentive adjustment

76 In addition, in the absence of the catastrophic event, Vector would have complied with its quality standards in the 2023 assessment period, resulting in a reduced quality incentive adjustment. Vector therefore also applies for an amount representing the difference between the quality incentive adjustment with and without the catastrophic event, as set out in **Table Seven** below.

Table Seven: quality incentive adjustment with and without catastrophic event

	With catastrophic event	Without catastrophic event	Difference Vector seeks to recover
Quality incentive adjustment	($1,650,015)	($1,249,678)	$400,337

77 The amount of quality incentive adjustment without a catastrophic event has been derived using Vector’s projected SAIDI forecast on 26 January 2023, being 97.61 unplanned SAIDI minutes.[10] This forecast was completed prior to the Auckland floods and Cyclone. We

[10] Published in Vector’s unplanned interruption report for the 2023 assessment period (table one on page 3) available: https://blob-static.vector.co.nz/blob/vector/media/vector-2023/2023-vector-unplanned-interruptions-reporting.pdf

consider this the most reasonable starting point (rather than actuals for the assessment period). This is because the Auckland floods and Cyclone had a continuing negative impact on network performance post the actual event.[11]

78 We have then –

- Accounted for the Auckland floods, which would have added a normalised 2.86 minutes to this forecast.[12] This would adjust the forecast from 97.61 to 100.47 unplanned SAIDI minutes.

- This results in a quality incentive adjustment of -$1,249,678 without a catastrophic event.

[11] Our unplanned interruption report for the 2023 assessment period provides further information around the long 'tail' of outages experienced after the major event window.

[12] See Table 23 of our compliance statement for the 2023 assessment period which provides details on this major event (available: https://blob-static.vector.co.nz/blob/vector/media/vector-2023/2023-vector-s-electricity-annual-compliance-statement.pdf)

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Appendix One – reopener criteria

The table below summarises the re-opener criteria, our assessment of why each criterion is met, and the supporting evidence we rely on. It is also provided as appendix one in our application.

Ref	Criteria	Assessment	Supporting evidence
Clause 4.5.1 Catastrophic event			
(a)	Beyond the reasonable control of the EDB	The January floods and Cyclone Gabrielle were both historically unprecedented natural disasters, beyond Vector's control and ability to prevent or further mitigate. The floods had a significant impact on network performance in the Cyclone (e.g. due to already wet ground) which was outside Vector's control and ability to further mitigate	• See paragraphs 36 to 45 of the application • Vector, *Vector's unplanned interruptions reporting for the 2013 assessment period* (24 August 2023) • https://niwa.co.nz/news/auckland-suffers-wettest-month-in-history • https://niwa.co.nz/news/auckland-suffers-wettest-month-in-history • https://blog.metservice.com/TropicalCycloneGabrielleSummary • https://niwa.co.nz/sites/niwa.co.nz/files/Climate_Summary_February_2023_NIWA-web.pdf
(b)	In relation to which expenditure is not explicitly or implicitly provided for in the DPP	Expenditure associated with a low probability/high impact event comparable to the catastrophic event was not included in the base, step, trend opex forecast used to set DPP3 or in Vector's 2019 AMP.	• See paragraphs 46 to 51 of the application • Commerce Commission, *Default price-quality paths for electricity distribution businesses from 1 April 2020 – Final decision, Reasons Paper* (27 November 2019) Attachments A and B • Vector, *Electricity Asset Management Plan 2024-2034*, section 15.3.1.
(c)	That could not have been reasonably foreseen at the time the DPP was determined	Given the historically unprecedented nature of the floods and Cyclone, the occurrence of this catastrophic event within the planning horizon of the DPP could not have been reasonably foreseen.	• See paragraphs 36 to 45 and 52 to 53 of the application
(d)	In respect of which -		

(i)	Action required to rectify its adverse consequences cannot be delayed until a future regulatory period without quality standards being breached	Even with its response, Vector breached the quality standards in circumstances where, absent the event, it would not have done so. This demonstrates that, in the absence of Vector's response, the impact on the quality standards would have been significantly greater.	• See paragraphs 54 to 61 of the application • Letter from Simon Mackenzie to Vhari McWha, Vector Limited – Quality Standards for RY23 – impact of catastrophic events (Auckland floods and Cyclone Gabrielle) (16 March 2023) • Vector, Electricity Distribution Services 2023 Annual Compliance Statement for the assessment period 1 April 2022 – 31 March 2023 (30 August 2023); • Vector, Vector's unplanned interruptions reporting for the 2023 assessment period (24 August 2023) • Letter from Mark Toner to Jo Lipscombe, Re: Vector's potential quality standard contravention – assessment period 2023 (21 June 2024). •
(ii)	Remediation requires either or both of capital expenditure or operating expenditure during the regulatory period	Remediation required both capex and opex.	• See paragraph 62 of the application. • See Appendix Two of the application.
(iii)	The full remediation costs are not provided for in the DPP	Expenditure associated with a low probability/high impact event comparable to the catastrophic event was not included in the base, step, trend opex forecast used to set DPP3 or in Vector's 2019 AMP.	• See paragraphs 46 to 51 and 63 of the application. • Commerce Commission, Default price-quality paths for electricity distribution businesses from 1 April 2020 – Final decision, Reasons Paper (27 November 2019) Attachments A and B • Vector, Electricity Asset Management Plan 2024-2034, section 15.3.1.
(iv)	In respect of an EDB subject to a DPP, the cost of remediation net of any insurance or compensatory entitlements has had or will have an impact	The cost of remediation net of any insurance or compensation exceeds 1% of FNAR in RY23.	• See paragraphs 64 to 66 and Table Five.

	on the price path over the disclosure years of the DPP remaining on and after the first date at which a remediation cost is proposed to be or has been incurred, by an amount equivalent to at least 1% of the aggregated forecast net allowable revenue for the disclosure years of the DPP in which the cost was or will be incurred.		
Definition of catastrophic event allowance			
	Means the amount determined by the Commission for -		
(a)	Additional net costs (over and above those provided for in a DPP determination or CPP determination) prudently incurred by an EDB in responding	In our view, the better interpretation of "additional net costs" is the difference in building blocks allowable revenue with and without the expenditure attributable to the catastrophic event. However, our application proceeds on the basis of the Commission's preferred interpretation.	• See paragraphs 70 to 71 and table 6.1 and 6.2

	to a catastrophic event, other than costs that are foregone revenue;		
(b)	recoverable costs and pass-through costs the EDB was permitted to recover under the applicable DPP determination or CPP determination through prices, but did not recover due to a catastrophic event;	N/A	
(c)	The impact of a catastrophic event on any quality incentive adjustment; incurred in or relating to the period between a catastrophic event and the effective date of an amendment to the DPP or CPP following reconsideration of the price-quality path.	In the absence of the catastrophic event, Vector would have complied with the quality standards, resulting in a lower quality incentive adjustment penalty. The expenditure the subject of this application was incurred in RY23, from 27 January 2023 onwards.	• See paragraph 76 to 78 of the application. • Appendix Two of the application

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Appendix Two: summary of costs incurred responding to catastrophic event

1 Vector's expenditure to respond to the catastrophic event is summarised below. We have presented the expenditure in terms of the Commission's expenditure categories.

2 We have included RY23 capex in the below table. As explained earlier in this application, this did not result in commissioned assets until RY24.

Cyclone

	Opex	Capex	Totex
ComCom Category	RY23	RY23	Total
Service interruptions and emergencies	5.82	-	**5.82**
Vegetation management	0.51	-	**0.51**
System operations and network support	0.33	-	**0.33**
Asset Replacement and Renewal	-	4.90	**4.90**
Total	**6.66**	**4.90**	**11.56**