

2025-2035

electricity asset management plan update

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# 1 – Changing operating environment and strategic response

In March 2024, we published a full Asset Management Plan (AMP), including detailed descriptions of our asset management system and investment forecasts. Building on that foundation, this 2025 AMP is an update that focuses only on the most significant developments and changes from the past year.

# 1.1 Key changes in our operating environment

As we outlined in our 2024 AMP, electricity distribution businesses (EDBs) face the need for unprecedented investment to support customer demand growth, electrification of transport and heating, and be resilient against climate change. Meeting this need efficiently for our customers is crucial. This means delivering the infrastructure that's fit for the future while ensuring customer costs are only what they need to be to deliver that infrastructure, and no higher. There's now much uncertainty from rapid technological innovation and changing customer behaviours and preferences. This makes it increasingly difficult to align planning horizons for our electricity infrastructure, which typically has a life of more than 40 years. Since our 2024 AMP we have observed this uncertainty increase due to several factors, described below.

Despite these uncertainties, we continue to follow our Symphony strategy, which seeks to actively shape the energy future by thinking outside traditional solutions, and leveraging innovative technology, data and customer solutions to chart a more costefficient path as the network continues to grow and evolve in step with customer demand. This culture of innovation is critical from an organisational perspective to enable us to deliver on customer, network and stakeholder objectives, including affordability and reliability.

# 1.1.1 CHANGES OUTSIDE VECTOR

### UNCERTAIN IMPACT ON SYSTEM GROWTH FROM HYPERSCALE DATA CENTRES

Auckland faces unique challenges from customers wanting to connect hyperscale data centres, the scale of which is currently not seen anywhere else in New Zealand. This is because data centre customers seek to locate facilities in Auckland due to its proximity to demand and connectivity to the global fibre backbone. We receive many more customer connection requests for hyperscale data centres than we did just a few years ago. These requests are complex, large, and have significant impact on our future planning for the part of the network they are located in. For example, hyperscale data centres typically request 20MVA in the first phase of multi-stage developments, which is roughly equivalent to 8,500 homes. We know these hyperscale data centre requests will drive a need for us to invest in system growth. There is significant uncertainty however around the rate at which demand will grow to match the capacity requested since this depends on adoption of data centre services by the data centre's clients, the type of services run at the data centre, and most importantly, how customers choose to use these new services. Artificial Intelligence (AI) operations and services typically use much more electricity than other types of digital operations, so if customers choose to embrace these services we expect to see strongly increased demand requirements.

Customer data centre connection requests are dynamic as they involve several stages over multiple years in a competitive global market. Not all requests will progress to be developed, and plans may change significantly along the way.

Hyperscale data centres represent a great opportunity for Auckland and New Zealand, and we're continuing to work with our data centre customers to meet their needs while ensuring investments in system growth are made at the right time for the wider network.

# UNCERTAINTY OVER THE RATE OF TRANSPORT ELECTRIFICATION AND ITS IMPACT ON SYSTEM GROWTH

Customer electric vehicle uptake has continued at a reduced rate compared to what was observed over 2022-2023. This was signalled at the time of publication of our 2024 AMP and has now been formalised as part of our demand forecast. Customers are choosing to buy fewer EVs, perhaps because of the removal of financial incentives, together with increased cost of living and inflation.

In the past year we've also seen the timing for a major public transport electrification project change, which impacted wider network reinforcement planning.

Overall, the impact on system growth driven by electrification of transport, both public and private, remains changeable and uncertain in the near term.

### POTENTIAL FOR REGULATORY IMPACTS

The pace of change and uncertainty in the energy sector today makes it more important than ever that regulation evolves fast enough while maintaining its effectiveness, and coherence over the long term. A challenge to this is that long-term strategic direction in energy policy is set at a political level, and that political direction is subject to democratic volatility, which can in turn influence regulatory priorities. This means long-term energy policy can change relatively frequently, or remain uncertain, at just the time that certainty is required for long-term investment planning. Described below are some of the key regulatory issues which have strong potential to impact our investment planning in the near term, depending on whether regulatory change is certainty is left unresolved.

#### SMART EV CHARGING:

We've previously signalled the opportunity in smart electric vehicle charging to keep the customer costs down, by orchestrating charging away from peak periods. This minimises the need for extra network reinforcement driven by electric vehicle charging. As there's still a lack of regulatory support to enable this, we must take a conservative view where the contribution to peak demand from EV adoption is unable to be minimised through orchestration. Under this forecast, the customer cost of EV adoption is higher than it needs to be.

### PROPOSED CHANGES TO CAPITAL CONTRIBUTIONS:

The Electricity Authority is proposing to amend the Electricity Industry Participation Code 2010 to introduce regulation around connection charges (taking effect from 1 April 2026). Most significantly, the Authority proposes to introduce a 'reliance limit' on the ability of EDBs to fund connection and system growth investment through capital contributions. For Vector, this would limit capital contributions to 82% of connection and system growth expenditure.

Vector's capital expenditure allowance for DPP4 (default price-quality path) was based on the assumption that 100% of growth capex would be funded through capital contributions, as is our current policy.

If the 82% reliance limit is implemented, the Authority's analysis is Vector would require a 15% increase in capex over the last four years of DPP4 requiring an additional \$28.25 million of maximum allowable revenue over the same period. We estimate the reliance limit will require an increase in net capex of ~\$140m over DPP4 for the regulatory years RY27-RY30.

If these changes are implemented as proposed, the balance of system growth capex no longer funded by connecting customers would need to be recovered in other ways. S54V of the Electricity Industry Act 2010 requires the Commerce Commission to reconsider a price-path (and amend it if it considers it necessary or desirable) if requested by the Authority, to take account of changes to the Code. We consider this would be the only mechanism available to ensure these costs are recovered and note that it would result in higher costs to existing customers through increased lines charges.

# COST PRESSURES

We've continued to see significant cost pressure throughout our supply chain. Our primary equipment cost is largely driven by global demand, with the need for more investment in electricity networks globally a major factor putting pressure on prices we pay in New Zealand. We're also seeing an increase in commodity prices, driven by a range of factors, that is impacting our equipment costs. Additionally, the current low NZD exchange rate is impacting import costs, resulting in increased expenditure across the supply chain.

#### TEMPORARY TRAFFIC MANAGEMENT

Rising costs and changing approaches relating to temporary traffic management (TTM) are impacting our asset management and works delivery programmes. Ensuring public and worker safety remains our top priority. Customers expect minimal disruption to roads and public spaces, Auckland Transport (AT) is proposing new restrictions on peak-hour roadwork and TTM costs have increased sharply in recent years. We continue to work with our community and AT to ensure reliable supply, support growth, and minimize disruptions as cost effectively as possible.

# 1.2 Our strategic response - how we are responding to these changes

#### INCREASED ALLOWANCES FOR INVESTMENT IN CYBER, DATA, INSURANCE AND CUSTOMER

In November 2024 the Commerce Commission announced the terms of the next five-year regulatory cycle, including our revenue. The next cycle includes increased operational allowances for several categories we've identified as critical, and which we've been investing in already for some time. These categories include cyber security, smart meter data acquisition and handling, insurance in light of increasing cost to repair from climate events, and customer engagement. We commend the Commission for recognising the importance of these categories and will continue our investment in each of these to benefit our customers.

Our smart meter data programme is well advanced and continues to evolve. In the past year we've begun analysing power quality data to determine from which low-voltage phase of the distribution transformer each individual connection is supplied. This has the potential to help us in a number of ways, most notably in improving the accuracy of our targeted communications to customers ahead of planned work in their area.

This is one example of how we're building a network of data capabilities and visibility to increase our understanding of customer preferences and network performance, to help us manage uncertainty.

#### MAINTENANCE CHANGES

Our risk-based approach to asset maintenance has continued to evolve, with significant changes currently being implemented. As we've had a risk-based model in place for several years now, we reviewed its effectiveness and identified areas where we could improve customer outcomes by leveraging technology that has matured to a point where it opens up opportunity to do things differently.

An example is that we're now surveying asset conditions by aerial imagery, using drones and helicopters, rather than groundbased observations. This gives us much richer data on asset health, and as further surveys are done we'll build up a comprehensive, up-to-date timeline of the condition of all our overhead assets. Through our partnership with X, formerly Google X, the GridAware tool on the Tapestry platform will enable us to further enhance our asset inspection practice by using machine learning to identify defects. The motivation is to vastly accelerate the time taken for asset surveying and inspection. As this will mean we're better able to identify defects efficiently across a broader range of asset types, we plan to move some maintenance investment from planned to corrective, reflecting that we spend less time assessing potential concerns and more time addressing real issues that improve the reliability and safety of our customers.

#### INNOVATION

Recent examples of our Symphony strategy driving innovation includes the successful deployment of grid-scale batteries near Warkworth. This has given us the planning flexibility to achieve a lower-cost installation of ducts for future network expansion by leveraging major roading work by the New Zealand Transport Agency Waka Kotahi. Another, is the use of those same batteries during a grid emergency to reduce peak demand at the nearby grid exit point, helping avoid localised power outages.

We commend the Commerce Commission for expanding the opportunities for innovation funding under the next price path, and we look forward to further embracing new ideas and solutions for our customers.

#### RESILIENCE

All climate change scenarios from the Intergovernmental Panel on Climate Change (IPCC) highlight an increase of extreme weather events for the Auckland Region. We have been engaging climate science agencies, such as NIWA, the University of Auckland, and Climsystems to better understand the physical impacts in the Auckland Region. We are also engaging with our customers and communities to understand their expectations regarding resilience and their willingness to pay for resilience solutions. The results from this work will help develop a resilience plan that is appropriate to the needs of Vector and its customers while seeking to strike a balance with affordability. We're doing this in the wider context of continued uncertainty around Government and local government objectives for infrastructure resilience and the cost burden of providing that resilience.

Our approach has been to focus on expenditure that is most cost-effective – in other words, those that mitigate the most risk with the lowest capital expenditure. This includes activities such as flood hardening around zone substations, strengthening electrical conductors, and network modernisation. We note, however, that we have avoided committing to high levels of capital expenditure where changes in government policy and regulation could materially reduce that cost – such as the impact of tree regulation reform as highlighted in the table below. We will re-engage with the Commerce Commission as these uncertainties are resolved, and re-openers are required.

We're following the work by the New Zealand Infrastructure Commission Te Waihanga to make critical infrastructure more resilient. This is an area of increasing importance to our customers just two years after the Auckland Anniversary weekend flooding and Cyclone Gabrielle, and we're looking forward to understanding Government resilience objectives when these are identified.

#### POTENTIAL FOR REOPENERS IN THE REVENUE PATH:

In our full 2024 AMP, we identified several areas where further investment is available to secure additional customer benefits, beyond what we included in our expenditure forecasts. Where those investments haven't been included, we set out what would need to change for them to be introduced, and that the mechanism for doing so would be by application to the Commerce Commission under a reopener process. For this AMP update we confirm these investment options remain available, and so we include details here.

OMITTED INVESTMENT AND UNREALISED CUSTOMER BENEFIT	WHY WE'RE NOT COMMITTING TO THIS INVESTMENT	WHAT NEEDS TO CHANGE FOR US TO COMMIT TO THIS INVESTMENT
Tree management (Without tree regulation reform)	This investment is significant for customers, and so we are bound to	1. If new network risk and investment modelling demonstrates that the capex investment is required we would consider
\$196 million capex in RY26-30	Reformed tree regulations would provide the opportunity to achieve similar outcomes for \$59 million. That	applying for an unforeseen project reopener.
	would be an opex cost.	2. If the tree regulations were to change to enable an opex solution, we would consider applying for a change event reopener.
Network meshing (In addition to existing strategy)	Uncertainty surrounding the Government's infrastructure resilience	Clarification of the Government's infrastructure resilience strategy and funding strategy is required. Based on the
\$106 million capex in RY26-30	strategy and running options.	outcome we would consider applying for a change event reopener.
Electric vehicle uptake (impact on system growth forecast)	While the removal of financial incentives, together with poor economic conditions indicates a slower	If the observed uptake of electric vehicles were to substantially exceed our forecast, we would consider applying for an
\$43 million capex in RY26-30	rate of uptake may persist over the	unforeseen project reopener.
	system growth driven by EV uptake remains changeable and uncertain in the near term.	Note - Policy development around smart home EV charging (as already adopted in the UK) could provide greater confidence in the potential for smart and scheduled management of EV load to reduce the impact of EV charging during network peak (i.e. orchestration) and optimise network reinforcement investment.

# 2 – What is in this AMP?

This Asset Management Plan (AMP) update sets out, as at the date of certification, our view of the investments we believe will deliver the best outcomes for our customers, and which also represent a prudent investment strategy. We note that, particularly given the uncertainty over future electricity demand, we are not bound to follow the investments described here as we update our plans and analysis on how to best deliver for our customers. Each investment we make goes through appropriate governance processes to ensure it is delivering against our strategy.

# 2.1 AMP update

In March 2024, we published a comprehensive AMP, which is available on our website <u>www.vector.co.nz.</u> This 2025 AMP update is structured to meet disclosure requirements. We have not attempted to duplicate the detailed explanations provided in our previously published, comprehensive AMP and we would encourage readers to revert to our 2024 AMP whenever a greater level of detail is required.

The 2025 AMP is limited to providing updates on material changes to our previous AMP including those relating to our network development and lifecycle asset management (maintenance and renewal) plans.

- Section 1 provides commentary on the increase in uncertainties we have observed since our last published AMP and sets out how
  we are responding to these uncertainties
- Section 2 sets out what is included in this year's AMP
- Section 3 presents an update of our capital and operational expenditure forecasts for the 10-year planning period (1 April 2025 to 31 March 2035). It also provides context for the material changes that have influenced our network development and lifecycle asset management plans since our last AMP disclosure
- Section 4 contains our updated Disclosed Schedules (11a-12d and 14a). It also contains our Directors' certification

# 2.2 AMP purpose statement

This AMP is intended to provide transparency to our customers, staff and stakeholders over the context in which we make investment decisions and how our asset management practices support the decision-making process.

# 2.3 AMP planning period

This AMP covers a 10-year planning period, from 1 April 2025 to 31 March 2035. Consistent with Information Disclosure requirements, a greater level of detail is provided for the first five years of this period.

# 2.4 Certification date

This AMP was certified and approved by our Board of Directors on 28 March 2025.

# 2.5 Overview of Vector

Vector is an innovative New Zealand energy company, which runs a portfolio of businesses delivering energy and communication services to 624,330<sup>1</sup> residential and commercial customers across New Zealand. Vector has a leading role in creating a new energy future through its Symphony strategy, which puts customers at the heart of the energy system. Vector is listed on the New Zealand Stock Exchange with ticker symbol VCT. Our majority shareholder, with voting rights of 75.1%, is Entrust. For further information, visit <u>www.vector.co.nz</u>.

# 2.6 Information disclosure requirements

Clause 2.6.3 in the Electricity Distribution Information Disclosure Determination 2024 (ID)<sup>2</sup> requires Vector to complete and publicly disclose, before 1 April 2025, an AMP update.

Clause 2.6.5 of the ID states that the AMP update must:

- (i) Relate to the electricity distribution services supplied by the electricity distribution business (EDB);
- (ii) Identify any material changes to the network development plans disclosed in the last AMP (or AMP update) per clause 11 and clauses 17.5 17.7 of Attachment A of the ID or in the last AMP update disclosed under this clause;

<sup>&</sup>lt;sup>1</sup> Vector Annual Report 2024 <u>https://blob-static.vector.co.nz/blob/vector/media/vector-2024/vec258-ar2024\_book-print\_full\_v2.pdf</u>

<sup>&</sup>lt;sup>2</sup> https://comcom.govt.nz/\_\_data/assets/pdf\_file/0026/363365/Electricity-Distribution-Information-Disclosure-amendments-related-to-IM-Review-2023-Amendment-Determination-2024-red-lined-version-27-November-2024.pdf

- (iii) Identify any material changes to the lifecycle asset management (maintenance and renewal) plans disclosed in the last AMP pursuant to clause 12 of Attachment A of the ID or in the last AMP update disclosed under this section;
- (iv) Provide the reasons for any material changes to the previous disclosures in the Report on Forecast Capital Expenditure set out in Schedule 11a and Report on Forecast Operational Expenditure set out in Schedule 11b; and
- (v) Identify any changes to the asset management practices of the EDB that would affect Schedule 13 Report on Asset Management Maturity disclosure

In addition, clause 2.6.6 requires each EDB to publicly disclose the following reports before the start of each disclosure year:

- Forecast Capital Expenditure in Schedule 11a
- Forecast Operational Expenditure in Schedule 11b
- Asset Condition in Schedule 12a
- Forecast Capacity in Schedule 12b
- Forecast Network Demand in Schedule 12c
- Forecast Interruptions and Duration in Schedule 12d

# 2.7 Asset management practices

Note as of 31 March 2025, there have been no material changes to the asset management practices and ongoing improvement plans that underpinned our 2024 AMP. Hence Schedule 13 - Report on Asset Management Maturity (AMMAT) as above remains unchanged and can be found in our 2024 AMP available on our website <u>www.vector.co.nz</u>.

A full updated AMMAT will be published as part of the 2026 AMP.

# 3 – Expenditure forecast and AMP major updates

# 3.1 Overview

This section sets out the expenditure forecasts for Vector's electricity distribution network assets over the next 10-year planning period (1 April 2025 to 31 March 2035) as relates to both our network development and lifecycle asset management plans.

- Section 3.2 outlines our total capex forecast
- Section 3.5 outlines our total opex forecast

This section also provides an update on any material changes since the 2024 AMP highlighting how our investment plan has evolved over the last 12 months to both grow and improve the network to meet Auckland's needs.

- Section 3.3 outlines the capex forecast variance to the 2024 AMP. Section 3.4 explains the major variances
- Section 3.6 outlines the opex forecast variance to the 2024 AMP. Section 3.7 explains the major variances

The capex and opex forecasts presented in this section align with Vector's planning process and financial year (FY) reporting period 1 July to 30 June. All figures presented are in 2025 dollars. The regulatory disclosure forecasts (see Appendices) are presented in regulatory year (RY) 1 April to 31 March, in both constant and nominal dollars, as per the Information Disclosure requirements. When comparing variance to the previous AMP in Sections 3.3 and 3.6, brackets represent negative numbers.

# 3.2 Capex forecast

The capex forecast update during the next 10-year planning period is presented below, based on our key asset management strategies, demand modelling and customer information available. The invest categories are grouped as follows:

- Total capex aggregate investment forecast of all subcategories that follow
- Growth capex forecast includes customer connection, system growth and relocations
- Integrity capex forecast includes asset replacement and renewal, and reliability, safety and environment
- Non-network capex forecast includes digital investment and property and leases



# 3.2.1 TOTAL CAPEX

FIGURE 3-1: TOTAL CAPEX (FINANCIAL YEAR, \$'000 CONSTANT FY25)

Total capex averages \$482m p.a. with the expenditure profile reflecting the growth and integrity forecast (see detail in the following sections), for which there is more certainty in the short term. The higher gross expenditure in FY26 to FY27 is driven by large customer projects and associated system reinforcement requirements, as well as a large number of primary asset replacement projects planned during this period.

#### 3.2.2 GROWTH CAPEX



FIGURE 3-2: GROWTH CAPEX (FINANCIAL YEAR, \$'000 CONSTANT FY25)

The expenditure profile for growth capex is influenced by the timing of significant projects with large capital outlay. The higher spend in FY26 and FY27 reflects continual investment to reinforce the backbone of the network to accommodate customer projects in data centres, transport electrification and Auckland airport. Key reinforcement projects during this period include two new zone substations, five zone substation upgrades, eleven cable upgrades as well as provision for two land purchases. The expenditure level from FY28 onwards averages circa \$191m, largely in line with an average of \$187m p.a. in the previous AMP. A higher investment in network capacity to meet anticipated point load demand in this period is offset by a reduction in the forecast for residential connections.



#### 3.2.3 INTEGRITY CAPEX

The asset integrity expenditure is higher in FY26 and FY27 driven by a higher investment in primary assets including 7 switchgear replacement (2 outdoor-to-indoor conversion (ODID) ), 13 transformer replacements, cabling and ducts relating to Southdown GXP and a new provision to install RMU fibreglass enclosures. Integrity expenditure from FY28 onwards averages circa \$230m p.a. and is higher than the previous AMP (\$208m), largely driven by increased investment in primary assets from FY31 onwards based on updated risk-based asset modelling.





#### 3.2.4 NON-NETWORK DIGITAL CAPEX

Our investment in non-network digital capex is aligned with our Symphony strategy and provides us with the foundational digital infrastructure and platforms to deliver cost-efficiency, reliability and customer outcomes. Vector's Enterprise Resource Planning (ERP) Modernisation Programme has now come to the fore, with discovery having been carried out in FY25 and design and delivery set to commence and continue throughout FY26 and FY27. This manifests in heightened expenditure over these initial years. The expenditure profile also aligns with network technology initiatives including Advanced Distribution Management System (ADMS) Phase II implementation, cyber and platform lifecycle management initiatives including ERP and Customer Relationship Management (CRM) reviews and/or upgrades.

# 3.2.5 NON-NETWORK PROPERTY AND LEASES



Spend in the property and leases category relates to the timing of renewal of leases for the stock holding warehouse (FY33) and 110 Carlton Gore Road premises (FY35).

# 3.3 2025 AMP capex variance to 2024 AMP

The 2025 AMP investment forecast for each category is summarised in table 3.1. A comparison to the previous AMP in terms of total capex is shown in figure 3.6. In the beginning of the 10-year AMP period, the AMP2025 expenditure is higher due to an increase in large point loads, while in the second half of the AMP period investment profile is pushed backward due to slower update of transport electrification.

The variance to the previous AMP by subcategory is summarised in table 3.2. The following subsections describe the differences for each subcategory.

KEY CAPEX CATEGORIES	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	TOTAL (FY26-35)
Consumer Connection	129,753	116,292	99,504	85,707	74,736	72,363	72,658	72,658	72,658	69,341	865,669
System growth	138,617	95,486	67,434	65,475	40,286	76,875	102,950	104,215	96,484	119,815	907,637
Asset relocations	36,147	35,318	34,879	34,245	33,611	32,977	32,977	32,977	32,977	32,977	339,083
Asset replacement and renewal	174,696	221,292	187,445	151,040	132,615	182,808	185,335	175,883	188,312	117,840	1,777,266
Reliability, safety and environment	94,206	81,803	57,800	54,362	53,222	58,914	58,890	55,616	60,666	56,016	631,496
Non-network assets	43,028	35,504	28,985	27,014	23,645	18,903	22,621	31,886	18,865	50,616	301,068
Total CAPEX	616,447	585,695	476,046	417,842	358,115	442,840	475,432	473,235	469,962	506,605	4,822,219

TABLE 3-1: AMP 2025 CAPEX FORECAST (FINANCIAL YEAR, \$'000 CONSTANT FY25)



FIGURE 3-6: AMP 2025 VARIANCE TO AMP 2024 CAPEX FORECAST (FINANCIAL YEAR, \$M CONSTANT FY25)

KEY CAPEX CATEGORIES	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	TOTAL (FY26-34)
Consumer Connection	(15,092)	4,181	5,719	(5,913)	(16,913)	(12,094)	(11,912)	(11,912)	(11,912)	(75,849)
System growth	33,702	15,529	(13,015)	(7,594)	(24,367)	29,676	49,178	42,983	20,349	146,442
Asset relocations	(2,301)	1,198	839	249	(224)	(807)	(807)	(807)	(807)	(3,466)
Asset replacement and renewal	(34,220)	17,470	25,075	5,796	(9,520)	9,747	32,240	34,308	48,215	129,111
Reliability, safety and environment	10,741	22,483	(5,325)	(163)	(742)	1,292	2,109	(98)	6,096	36,394
Non-network assets	(6,553)	1,263	5,514	6,477	1,839	(6,477)	(5,198)	7,877	(25,856)	(21,114)
Total CAPEX	(13,722)	62,124	18,807	(1,148)	(49,928)	21,338	65,610	72,351	36,085	211,518

TABLE 3-2: AMP 2025 VARIANCE TO AMP 2024 CAPEX FORECAST TABLE (FINANCIAL YEAR, \$'000 CONSTANT FY25)

# 3.4 Explanation of major network capex variances

Key changes in capex over the 9 years for which the 2024 AMP and 2025 AMP overlap are as follows:

#### 3.4.1 CUSTOMER CONNECTIONS

Since our last AMP, the prolonged economic recovery in New Zealand has led to a reduction in our housing and subdivisions investment forecasts (\$76M).

# 3.4.2 SYSTEM GROWTH

System growth forecast has increased by \$146m mostly due to projects that are brought forward to align with the timing of customer-driven projects (\$90m) and other Vector initiatives (\$45m) following a "dig once" approach to capture cost synergy and reduce public disruptions.

The key projects driving the variances are:

- Driven by the strong load growth in the CBD area as a result of data centre customer development, we have decided to establish
  a new CBD zone substation which will enable the long-term development of the CBD. The zone substation and related
  subtransmission cabling is forecast to require an investment of nearly \$40m in the 10-year AMP period.
- We're evaluating plans for a new GXP in Huapai to accommodate the strong population and housing development in the area. To enable this in a cost-efficient way, we plan to leverage customer developments happening in the area and have brought forward just over \$20m investment in subtransmission assets, under our 'dig once' approach.
- Due to commercial developments, we have forecast an investment at the end of the 10-year AMP period to develop the Newmarket zone substation (\$23m).
- We've brought forward an investment of \$13m to upgrade transformers TI and T2 in the Takanini zone substations, also installing a third transformer to accommodate customer demand growth in the area.
- The Big Omaha zone substation 11kV network is located in a geographically and electrically isolated part of the network, which is
  also forecast to experience constraints whilst under contingency over coming years. The contingencies are also subject to complex
  operational decisions with limited options available to remediate, leading to a poor customer experience. The Omaha Peninsula
  11kV Feeder Reinforcement (\$17m) project which consists of a new feeder and backstop connection have been created to improve
  resilience for customers, and support future growth.

### 3.4.3 ASSET RELOCATION

The timing of asset relocation projects is dictated by large third-party projects. The expenditure forecast aligns with the previous AMP, with the updated long-term forecast based on historical expenditure resulting in a small reduction in forecast over the 9-year period (-\$3.5m).

### 3.4.4 ASSET REPLACEMENT AND RELIABILITY

Asset replacement expenditure has increased by \$129m compared to last year's AMP largely driven by an increase in investment in primary assets including zone substation switchgear (\$51m), transformers (\$18m), cable replacement (\$38m) that are provisioned based on updated asset risk modelling.

The key projects driving the variances are:

#### POWER TRANSFORMERS AND SUBTRANSMISSION SWITCHGEAR

Recent data from routine inspection and testing of power transformers have shown that for asset health reasons, six additional transformer replacement projects are required within the AMP period.

We have also increased our investment forecast in subtransmission switchgear. Most notably, this will deliver a switchboard upgrade in our Quay Street zone substation in the CBD in the next five years, as well as replacements of nine oil type switchgear, and four outdoor-to-indoor conversions in the second half of the AMP period. The change was driven by a re-calibration of our CBARM models.

Another important resilience investment variance is the extension works in our Belmont zone substations, which will improve resilience in the area as the flood-prone neighbouring zone substation in Ngataringa Bay can be decommissioned. This project was previously motivated by growth but has since been reclassified as asset resilience.

#### CABLES/OVERHEAD

We've maintained our plans to install an additional subsea cable to Waiheke but have re-classified it as a network resilience investment. This recognises that lower forecast demand growth no longer requires asset reinforcement, however we consider the loss of the cable as a high-impact low-probability event given the criticality of secure supply for Waiheke customers and businesses. In light of the long lead time to commission a new undersea cable and that demand growth can change rapidly, it is prudent to begin this process to support growth were forecasts to change.

### DISTRIBUTION EQUIPMENT

Two targeted programmes have been set up to mitigate a newly identified risk within our fleet of RMUs. The programme will eliminate this risk and required an additional investment of nearly \$14m to be added to our forecast.

### 3.4.5 RELIABILITY

Forecast investment in reliability, safety and environment has increased primarily due to the investment required to diversify Vector zone substation demand away from Penrose GXP, one of the largest GXPs in New Zealand. We have committed to strengthening the security of supply for parts of southern Auckland by establishing a new GXP in Southdown. This requires new duct and cable installations to our Te Papapa and Westfield ZSSs, as well new future-proofing ducts around the GXP site which are now included in this AMP update (\$37m).

### 3.4.6 NON-NETWORK

### DIGITAL

Our non-network capex has increased by \$10m as we have refined the design of our ERP platform, which will be the core engine powering our asset and financial data processes.

#### PROPERTY AND LEASES

Property and leasing costs have reduced by \$30m due to changes identified in the 53ZD process for how CPI is treated. Primarily this impacted the recognition of the warehouse & 110 CGR Office lease. There was also a slight timing and value change for the warehouse (FY34 to FY33).

# 3.5 Opex forecast

The forecast opex update during the next 10-year planning period is presented below, based on our key asset management strategies and operational structure. These are grouped in the following categories:

- Total opex aggregate investment of all subcategories that follow
- Network opex forecast includes service interruptions and emergencies, vegetation management, routine and corrective maintenance and inspection, asset replacement and renewal
- Non-network opex forecast includes system operations and network support, business support



### 3.5.1 TOTAL OPEX

FIGURE 3-7: TOTAL OPEX (FINANCIAL YEAR, \$'000 CONSTANT FY25)

KEY OPEX CATEGORIES	FY26	FY27	FY28	FY29	FY30	FY31	FY32	FY33	FY34	FY35	TOTAL (FY26-35)
Service interruptions and emergencies	18,870	26,507	19,146	19,286	19,427	19,570	27,214	19,859	20,006	20,154	210,041
Vegetation management	8,000	9,000	9,000	7,500	6,500	6,000	5,000	5,000	5,000	5,000	66,000
Routine and corrective maintenance and inspection	27,382	27,066	28,328	27,651	26,904	28,108	26,389	27,868	27,483	27,536	274,715
Asset Replacement and renewal	19,546	19,021	17,060	17,144	17,229	17,314	17,400	17,486	17,573	17,660	177,433
System operations and network support	48,966	48,790	49,954	50,666	52,824	53,582	54,961	56,038	57,946	59,202	532,931
Business support	70,669	71,887	73,136	74,419	75,739	77,096	78,492	79,930	81,413	82,942	765,722
Total OPEX	193,433	202,272	196,624	196,666	198,623	201,670	209,457	206,182	209,421	212,495	2,026,843

TABLE 3-3: AMP 2025 OPEX FORECAST (FINANCIAL YEAR, \$' 000 CONSTANT FY25)

# 3.6 2025 AMP opex variance to 2024 AMP

Figure 3-8 shows the difference between the 2025 and 2024 AMP expenditure forecasts year on year, with Table 3-4 breaking down the variance by expenditure categories.



FIGURE 3-8: AMP 2025 VARIANCE TO AMP2024 OPEX FORECAST (FINANCIAL YEAR, \$M CONSTANT FY25)

	EV26	EV27	EV28	EV29	EV30	EV31	EV32	EV33	EV34	τοται
	1120	1127	1120	1125	1150	1151	1152	1155	1154	(FY26-34)
Service Interruptions and emergencies	(1,153)	(892)	(1,162)	(1,167)	(1,171)	(1,176)	(916)	(1,186)	(1,190)	(10,013)
Vegetation management	(752)	(1,752)	(1,752)	(1,288)	(288)	212	1,212	1,212	1,212	(1,984)
Routine and corrective maintenance and inspection	(1,268)	(1,041)	(1,987)	(1,441)	(693)	(1,263)	(864)	(750)	(1,169)	(10,476)
Asset Replacement and renewal	(2,179)	(4,761)	(3,234)	(3,211)	(3,187)	(3,162)	(3,137)	(3,112)	(3,087)	(29,070)
System operations and network support	11,967	12,652	12,389	12,130	11,715	11,450	11,182	10,924	10,671	105,081
Business support	(10,358)	(11,395)	(12,402)	(13,506)	(14,690)	(15,781)	(16,885)	(18,003)	(19,133)	(132,153)
Total OPEX	(3,745)	(7,190)	(8,149)	(8,482)	(8,314)	(9,720)	(9,408)	(10,914)	(12,696)	(78,616)

TABLE 3-4: AMP 2025 VARIANCE TO AMP 2024 OPEX FORECAST (FINANCIAL YEAR, \$'000 CONSTANT FY25)

# 3.7 Explanation of major opex variances

Key changes in network opex over the 9 years for which the 2024 AMP and 2025 AMP overlap are as follows:

### NETWORK OPEX

Service Interruptions and emergencies are \$10.0m higher due to higher increase in Field Service Provider (FSP) commercial rates, the rate of inflation, as well as a small increase in relation to reactive work due to weather-related events not captured as part of exceptional reactive maintenance.

An increase of \$10.5m in routine and corrective maintenance primarily driven by higher increase in FSP commercial rates, and the rate of inflation.

Asset replacement and renewal is \$29.1m higher primarily due to continuation of line clearance work beyond FY26.

# NON-NETWORK OPEX

Systems operations and network support expenditure is forecasted to be \$105.1m lower due to reclassification of personnel costs and cyber security costs (now part of corporate costs) to business support and lower level of value added activity.

Business support costs have increased by \$132.2m due to reclassification from system operations and network support (as above) as well as higher expected growth rate.

Investment in critical areas like cyber security, smart meter data, insurance due to climate events, and customer engagement have been maintained or increased. The importance of these critical investments was recognised by the Commerce Commission in their DPP4 Determination for "step up" allowances.

# 4-Appendices

# 4.1 Appendix 1 - Forecast capital expenditure (Schedule 11a)

							U	Company Name	>	ector Limited	
							AMP	Planning Period	1 April 2	:025 – 31 March	2035
ACHEDULE 113: REPORT ON FORECAST CAPITAL EX his schedule requires a breakdown of forecast expenditure on assets for the current of	(PENDITURE disclosure year and a 10 year planning period. T	The forecasts should	be consistent with the	e supporting informa	tion set out in the AN	AP. The forecast is to	be expressed in bot	h constant price and	nominal dollar terms.	. Also required is a for	ecast of the
alue of commissioned assets (i.e., the value of RAB additions) DBs must provide explanatory comment on the difference between constant price an	vd nominal dollar forecasts of expenditure on as	isets in Schedule 14a	(Mandatory Explana	atory Notes). EDBs r	nust express the infor	rmation in this sched	ule (11a) as a specifi	c value rather than ra	anges. Any supportin	g information about t	ese values may
e disclosed in Schedule 15 (Volumary Explanatory Notes). his information is not part of audited disclosure information.											
ref											
2	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
00	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30	31 Mar 31	31 Mar 32	31 Mar 33	31 Mar 34	31 Mar 35
9 11a(i): Expenditure on Assets Forecast	\$000 (in nominal do	diars)									
t0 Consumer connection	147,394	141,292	124,700	111,000	98,007	87,484	84,648	86,588	89,117	91,626	90,980
11 System growth	96,405	132,324	108,672	78,193	71,153	51,612	77,108	112,879	125,045	121,782	145,016
Asset replacement and renewal	167,667	162,337	219,593	210,765	176,935	155,734	198,553	221,462	219,739	234,746	235,172
13 Asset relocations	23,824	33,264	36,946	37,374	37,740	38,051	38,366	39,259	40,364	41,501	42,670
14 Reliability, safety and environment: 014 Duality of sumby											
t6 Levision and regulatory	2.941	205									
77 Other reliability, safety and environment	17,073	75,664	86,905	67,074	59,621	59,339	65,515	69,006	67,984	73,576	72,815
18 Total reliability, safety and environment	20,014	75,869	86,905	67,074	59,621	59,339	65,515	900'69	67,984	73,576	72,815
19 Expenditure on network assets	455,304	545,086	576,816	504,406	443,456	392,220	464,190	529,194	542,249	563,231	586,653
20 Expenditure on non-network assets	24,917	37,966	38,553	32,427	29,921	27,360	23,065	25,606	35,890	27,604	54,757
Expenditure on assets	480,221	583,052	615,369	536,833	473,377	419,580	487,255	554,800	578,139	590,835	641,410
2											
23 plus Cost of financing	9,030	12,535	12,495	10,316	9,218	8,093	9,471	11,175	11,871	11,942	13,445
24 less Value of capital contributions	212,936	241,846	236,605	226,860	219,229	216,730	215,835	216,684	219,605	221,898	220,907
25 plus Value of vested assets											
27 Capital expenditure forecast	276.315	353.741	391.259	320,289	263.366	210.943	280,891	349.291	370,405	380,879	433.948
88											
29 Assets commissioned	270,689	353,740	391,259	320,290	263,369	210,943	280,891	349,292	370,404	380,879	433,944
10	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30	31 Mar 31	31 Mar 32	31 Mar 33	31 Mar 34	31 Mar 35
2	\$000 (in constant pr	rices)									
23 Consumer connection	147,394	137,233	117,852	102,136	87,811	76,310	71,856	71,489	71,562	71,562	69,111
54 System growth	96,405	128,523	102,704	71,949	63,751	45,020	65,455	93,196	100,413	95,114	110,158
Asset replacement and renewal	167,567	157,673	207,534	193,935	158,529	135,842	168,547	182,845	176,453	183,341	178,643
27 Dallahilihu rafatu and anvironmanti	h79/67	000070	175/90	055/95	+TO/CC	TGT'CC	000/70	CTH/7C	CT1/7C	CT16/7C	CT4/7C
28 Quality of supply		'	,	'	'	'	'	'		-	·
89 Legislative and regulatory	2,941	199				•					
0 Other reliability, safety and environment	17,073	73,490	82,132	61,718	53,419	51,760	55,614	56,973	54,592	57,464	55,312
#12 Total reliability, safety and environment	20,014	73,689	82,132	61,718	53,419	51,760	55,614	56,973	54,592	57,464	55,312
42 Expenditure on network assets	455,304	529,426	545,139	464,128	397,324	342,123	394,040	436,916	435,433	439,894	445,637
43 Expenditure on non-network assets	24,917	36,875	36,436	29,838	26,808	23,865	19,579	21,141	28,820	21,559	41,595
4 Expenditure on assets	480,221	566,301	581,575	493,966	424,132	365,988	413,619	458,057	464,253	461,453	487,232
45 50 50 50 50 50 50 50 50 50 50 50 50 50	(II)										
18 Energy efficiency and demand side management, reduction of en	hergy losses										
19 Overhead to underground conversion	8,281	11,656	12,323	12,323	12,323	12,323	12,323	12,323	12,323	12,323	12,323
50 Research and development	-						1				
2											

31 Mar 30 11,174 19,890 19,890 19,890 19,890 3,495 3,415
N ത്ത്ത്ത് പ്രസ്സ്സ്സ്സ്സ്സ്
31 Mar 33         31 Mar 33           683         17,555           846         7,453           946         7,391           13         13,392           13         13,392           13         13,392           13         13,392           13         13,392           145         7,070           743         113,486

11a(iv): Asset Replacement and I							
11a(iv): Asset Replacement and F							
	Renewal	\$000 (in constant pri	ces)				
Subtransmission		2,202	18,109	32,779	22,486	8,769	7,039
Zone substations		23,447	35,833	68,726	73,991	54,958	33,842
Distribution and LV lines		26,599	13,772	14,417	13,624	13,322	13,337
Distribution and LV cables		64,499	49,025	50,370	46,933	45,969	46,142
Distribution substations and transform	mers	14,924	8,621	8,624	7,957	7,765	7,774
Distribution switchgear		23,155	22,942	22,952	21,970	21,731	21,743
Other network assets		12,841	9,371	999/6	6,974	6,015	5,965
Asset replacement and repeal expens	diture	167,667	157,673	207.534	193,935	158.529	135.842
face fracted contributions fundion access as	Internet and memory	sood soot	nead one	and one		restore	- when the second
		100 101	107.073	101 101	100 001	100 010	110 011
Asset replacement and renewal less ca	pital contributions	TB1/bB/	5/0//01	PEC,1U2	CER,ERI	K7C'8CT	798/051
		31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30
11a(v): Asset Relocations							
Project or programme*	ſ	\$000 (in constant pri	ces)				
Overground to underground conversi	lons	8,281	11,656	12,323	12,323	12,323	12,323
				_			
<ul> <li>include additional rows if needed</li> </ul>							
All other project or programmes - ass	et relocations	15,543	20,652	22,594	22,067	21,491	20,868
Asset relocations expenditure		23,824	32,308	34,917	34,390	33,814	33,191
less Capital contributions funding asset re	locations	15,761	19,960	20,334	19,413	18,543	16,587
Asset relocations less capital contribution	SUG	8,063	12,348	14,583	14,977	15,271	16,604
		57 Mar 25	31 Mar 26	51 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30
11a(vi): Ouality of Supply							
Project or programme		Soou (in constant pr	(sa)				
*include additional rows if needed							
All other projects or programmes - qu	sality of supply						
Quality of supply expenditure		'		1	'		'
less Capital contributions funding quality (	of supply						
Quality of supply less capital contributio	SNS .	'	'	-	-		

31 Mar 25     31 Mar 25     31 Mar 26     31 Mar 26     31 Mar 26       5000 (no constant price)     199     -     -     -       2.941     199     -     -     -     -       2.941     199     -     -     -     -       2.941     199     -     -     -     -       2.941     199     -     -     -     -       2.941     199     -     -     -     -       2.941     199     -     -     -     -       2.941     199     -     -     -     -       2.941     23,490     82,132     61,718     54,490     54,490       2.000 (no constant price)     -     -     -     -       17,073     73,490     82,132     61,718     54,490       21,973     73,490     82,132     61,718     54,490       21,973     73,490     82,132     54,410     54,410       17,073     73,490     82,113     54,410     54,410       17,073     31 Mar 26     31 Mar 26     31 Mar 26     54,410       11,073     31 Mar 73     31 Mar 73     31 Mar 70     54,410       21,974     31 Mar 76     31 Mar 7	(1): Left statement         (2): Left statemen
31 Mar 25         31 Mar 26         31 Mar 23         31 Mar 24         31 Mar 24         31 Mar 24           500 (Inconstant prices)         199         199         199         199         199           2.341         199         199         199         199         199         199           2.341         199         199         199         199         199         199           2.341         199         199         199         199         199         199           2.341         199         31 Mar 35         31 Mar 36         34 Mar 36	1146-15     3146-35
31 Mar 25     31 Mar 26     31 Mar 28       500 (in constant prices)     300 (in constant prices)     31 Mar 28       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       2,941     199     -     -       31 Mar 25     31 Mar 26     31 Mar 27       500 (in constant prices)     -     -       17/073     73/400     82,132       17/073     73/400     82,132       500 (in constant prices)     -       31 Mar 26     31 Mar 27       31 Mar 76     31 Mar 77       31 Mar 76     31 Mar 77       500 (in constant prices)     -       -     -       -     -       17/073     31 Mar 77       31 Mar 76     31 Mar 77       5506 (in const	1. Nu 25       3. Nu 25 <td< td=""></td<>
31 Mar 25     31 Mar 26       5000 (in constant prices)     199       2,941     199       2,941     199       2,941     199       2,941     199       2,941     199       2,941     199       2,941     199       2,941     199       2,941     199       2,941     199       31 Mar 25     31 Mar 26       31 Mar 26     31 Mar 27       5000 (in constant prices)     73,490       9000 (in constant prices)     82,132       17,073     73,490       82,132     31 Mar 27       31 Mar 25     31 Mar 27       5000 (in constant prices)     82,132       9000 (in constant prices)     82,132       17,073     73,490     82,132       31 Mar 25     31 Mar 27       31 Mar 25     31 Mar 27       9000 (in constant prices)     82,132       17,073     73,490       8000 (in constant prices)     82,132       10     17,013       11     12,119       5,568     15,411       5,568     15,411       19,359     1,2471	3104 35     3104 35     3104 35     3104 35     3104 35     3104 35       101 Legislario and Regulatori <ul> <li>             101 Legislario and Regulatori</li> </ul> <ul> <li>             101 Legislario and Regulatori</li> <li>             101 Legislario and Regulatori</li> <li>             101 Legislario and Regulatori</li> </ul> <ul> <li>             101 Legislario and Regulatori</li> <li>             101 Legislari</li> <li>             10</li></ul>
31 Mar 25     31 Mar 26       5000 (In constant prices)     199       2.9411     199       2.9411     199       2.9411     199       2.9411     199       31 Mar 25     31 Mar 26       5000 (In constant prices)     73,490       17,073     73,490       17,073     73,490       31 Mar 25     31 Mar 26       5000 (In constant prices)     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,073     73,490       17,074     73,490       17,075     73,490       17,073     73,490       17,074     73,490       17,075     73,490       17,076     13,414	All the field of the field
31 Mar 25 5000 (In constant Price 2,941 1 2,941 1 2,958 1 2,558 1 2,5	Allow and Regulatory Project or programmer - Provide additional Towns' fracted Allow additional
	Algorithm       Algorithm         Protect or programme*       Algorithm         Protect or program       Algorithm         Prote

CHEDULE 11b: REPORT ON FORECAST OPERATIONAL EXF is schedule requires a breakdown of forecast operational expenditure for the disclosure year and operational Expenditure Forecast Service interruptions and emergencies Vegetation management Route and renewal Network Opex	ENDITURE							AMP	Planning Period	1 April 2	025 - 31 Mar	h 2035
is schedule requires a breakdown of forecast operational expenditure for the disclosure year and <b>Operational Expenditure Forecast</b> Service interruptions and emergencies Vegetation management. Routine and corrective maintenance and inspection Asst replacement and renewal Network Opex	A the second when a				the state and state and							
Operational Expenditure Forecast Service interruptions and emergencies Vegetation management Routhe and corrective maintenance and inspection Asset replacement and renewal Network Opex	a 10 year planning period. I ne 1	orecasts should	d be consistent wit	h the supporting info	rmation set out in th	e AMP. The forecas	t is to be expressed	in both constant price	e and nominal dollar	erms.	U.U	0110
Operational Expenditure Forecast Service interruptions and emergencies Vegetation management Routine and corrective maintenance and inspection Asset replacement and renewal Network Opex	31 N	flar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30	31 Mar 31	31 Mar 32	31 Mar 33	31 Mar 34	31 Mar 35
Service interruptions and emergencies Service interruptions and emergencies Vegetation management. Routine and corrective maintenance and inspection Assist replacement and renewal Network Opex	Soon fin	nominal dollars	1									
Vegetation management Routine and corrective maintenance and inspection Asset replacement and renewal Network Opex		17,255	19,217	25,741	22,435	21,114	21,764	22,430	29,760	26,038	24,552	25,304
Routine and corrective maintenance and inspection Asset replacement and renewal Network Opex		8,953	7,807	9,149	9,637	8,629	7,571	7,030	6,162	600/9	6,147	6,289
Asset replacement and renewal Network Opex		23,586	27,546	28,366	30,001	30,508	30,400	31,933	31,494	33,053	33,906	34,619
Network Opex		14,927	19,094	20,012	18,782	18,780	19,313	19,856	20,414	20,988	21,579	22,186
		64,721	73,664	83,268	80,856	79,031	79,048	81,248	87,831	86,088	86,184	88,398
System operations and network support		49,056	49,330	51,033	53,183	55,376	58,689	61,308	64,162	67,025	70,665	74,076
Business support		70,348	71,830	74,812	77,983	81,272	84,637	88,136	91,798	95,631	99,645	103,852
Non-network solutions provided by a related party or third party Not Rei	puired before DY2025											
Non-network opex		119,404	121,160	125,845	131,166	136,648	143,326	149,444	155,960	162,656	170,310	177,928
Oper ational expenditure		184,125	194,824	209,112	212,022	215,679	222,373	230,692	243,791	248,744	256,494	266,326
	31 N	far 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30	31 Mar 31	31 Mar 32	31 Mar 33	31 Mar 34	31 Mar 35
	\$000 fin	constant prices										
Service Interruptions and emergencies		17,255	18,841	24,598	20,986	19,251	19,392	19,534	25,303	21,698	19,969	20,117
Vegetation management		8,953	7,647	8,750	000/6	7,875	6,750	6,125	5,250	5,000	5,000	5,000
Routine and corrective maintenance and inspection		23,586	27,001	27,145	28,012	27,820	27,091	27,807	26,819	27,498	27,579	27,523
Asset replacement and renewal		14,927	18,704	19,152	17,550	17,123	17,208	17,293	17,378	17,465	17,551	17,638
Network Opex		64,721	72,193	79,645	75,549	72,069	70,441	70,759	74,750	71,661	70,100	70,278
System operations and network support		49,056	48,354	48,834	49,663	50,488	52,284	53,393	54,617	55,769	57,469	58,888
Business support		70,348	70,421	71,583	72,824	74,098	75,409	76,756	78,143	79,571	81,042	82,560
Non-network solutions provided by a related party or third party Not Rel	quired before DY2025											
Non-network opex		119,404	118,775	120,417	122,487	124,586	127,693	130,149	132,760	135,340	138,511	141,448
Operational expenditure		184,125	190,968	200,062	198,036	196,656	198,134	200,908	207,510	207,001	208,611	211,726
Subcomponents of operational expenditure (where known)												
		┢										
Energy emolency and demand sloe management, reduction of energy												
Direct billing*			T									
Research and Development												
Insurance		5,419	5,988	6,599	7,337	8,160	9,079	10,106	11,254	12,537	13,972	15,575
* Direct billing expenditure by suppliers that direct bill the majority of their consumers												
	;											
	AL TC	VIAL 23	07 JPINI TC	T INIAL 21	07 JPINI TC	67 JPINI TC	DC JPINITC	TC JPINI TC	7C JPINI TC	CC JPINI TC	the JPINI TO	CC JPINI TC
Difference between nominal and sea ferences												
	0000		376	CV1 1	1 440	630 1	CTC C	1005	A 467	OVEN	C03 V	5 107
Uperstation management			150	2005	103	TEA	1100		C10	1 000	COL/P	101/0
Routine and corrective maintenance and inspection		'	546	1.221	1.988	2.688	3.309	4.126	4.675	5,555	6.326	360.7
Asset renjarement and renewal		'	065	RED	1 232	1.657	2.105	2.563	3.036	3.524	4.028	4.548
Network Onex		'	1471	3.623	5.307	6.962	8,607	10.489	13,080	14.427	16.084	18.119
System operations and network support		'	976	2.198	3.520	4.887	6.404	7.915	9.546	11.256	13.196	15.188
Bisiness support		'	1 409	3.779	5.159	7.174	9.228	11.380	13.655	16.060	18,603	20212
Non-network solutions provided by a related party or third barty Not Rev	uured before DY2025	'	-	-	-	-	-	-	-	-	-	-
Non-network opex		'	2,385	5,428	8,679	12,061	15,633	19,295	23,200	27,316	31,799	36,480
Oper ational expenditure		'	3,856	9,050	13,986	19,023	24,240	29,784	36,281	41,743	47,883	54,600
	]											

# 4.2 Appendix 2 - Forecast operational expenditure (Schedule 11b)

							Com	oany Name		Vector	Limited		
							AMP Plan	ning Period	1 A	pril 2025 –	31 March 2(	35	
SC	HEDULE	E 12a: REPORT ON A	SSET CONDITION	-									
repla	schedule re. ced in the n	equires a preakoown or asset condit next 5 years. All information should	ion by asser class as at the start of the rorecast year. The data accuracy assess be consistent with the information provided in the AMP and the expenditure on	iment relate n assets for	es to the percent ecast in Schedul	age values disc) e 11a. All units r	osed in the asser elating to cable a	condition colurn and line assets, t	nns. Also require that are expresse	d is a rorecast o d in km, refer to	r the percentage o circuit lengths.	or units to be	
sch ref													
~						Asset	condition at star	t of planning pe	riod (percentage	e of units by gra	ide)		
00												% of asset forecast to be	
	Voltage	Asset category	Asset class	Units	Ħ	Ŧ	뛰	H	뚯	Grade unknown	Data accuracy (1-4)	replaced in	
6				l							2	next5 years	
10	Ы	Overhead Line	Concrete poles / steel structure	No.	0.01%	0.09%	21.66%	31.24%	47.01%		4	6.47%	
11	Ы	Overhead Line	Wood poles	No.	0.06%	0.99%	84.26%	8.23%	6.46%		4	37.22%	
12	ЧI	Overhead Line	Other pole types	No.	1		4.44%	6.91%	88.65%		4		
13	₹	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	1	0.03%	89.51%	7.63%	2.83%		3	0.27%	
14	₹	Subtransmission Line	Subtransmission OH 110kV+ conductor	km		1	72.35%	25.70%	1.95%		3		
15	₹	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	1	2.94%	1.87%	37.22%	57.97%		2	3.24%	
16	٨H	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km		1		97.51%	2.49%		2	2.74%	
17	₹	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km		-					N/N		
18	₽	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km		45.53%	34.15%	17.21%	3.11%		2	64.95%	
19	۶H	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km		1		85.70%	14.30%		2		
20	₽	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	1	1	61.69%	31.13%	7.17%		2		
21	₹	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km							N/N		
22	₹	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km							N/N		
23	₹	Subtransmission Cable	Subtransmission submarine cable	km	1	1	97.37%	2.63%	1		2		
24	۶	Zone substation Buildings	Zone substations up to 66kV	No.			7.83%	68.70%	23.48%		4	5.22%	
25	₽	Zone substation Buildings	Zone substations 110kV+	No.	1	1		33.33%	66.67%		4	1	
26	₹	Zone substation switchgear	22/33kV CB (Indoor)	No.	1	5.90%	5.28%	24.53%	64.29%		3	5.90%	
27	₹	Zone substation switchgear	22/33kV CB (Outdoor)	No.		21.70%	40.57%	27.36%	10.38%		3	26.42%	
28	₹	Zone substation switchgear	33kV Switch (Ground Mounted)	No.							N/N		
29	₽	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	1	27.63%	63.16%	7.24%	1.97%		3	33.55%	
30	₹	Zone substation switchgear	33kV RMU	No.	1	16.67%	50.00%	1	33.33%		e	16.67%	
31	₹	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	1	1	'	40.91%	59.09%		e	1	
32	₽	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	1	100.00%	'	1	'		3	100.00%	
33	₽	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	1	8.83%	23.91%	19.93%	47.33%		3	13.67%	
34	₹	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.							N/N		
35													

# 4.3 Appendix 3 - Asset condition (Schedule 12a)

36						Aces	t condition of cha	et of alconing to	alad face contract	of unite her are	dat	
37											ī	% of asset
	Voltage	Asset category	Asset class	Units	Ŧ	댂	뙆		웊	Grade	Data accuracy (1–4)	forecast to be replaced in
38												next 5 years
39	₹	Zone Substation Transformer	Zone Substation Transformers	No.		6.90%	43.97%	18.53%	30.60%		4	5.17%
40	₹	Distribution Line	Distribution OH Open Wire Conductor	km		0.76%	84.96%	11.44%	2.83%		3	1.22%
41	₹	Distribution Line	Distribution OH Aerial Cable Conductor	km							N/A	
42	₽	Distribution Line	SWER conductor	km							N/A	
43	₽	Distribution Cable	Distribution UG XLPE or PVC	km	0.37%	0.25%	1.97%	20.69%	76.72%		2	0.61%
44	₽	Distribution Cable	Distribution UG PILC	km	0.25%	1.16%	4.61%	77.26%	16.72%		2	1.42%
45	₹	Distribution Cable	Distribution Submarine Cable	km			86.16%	13.80%	0.04%		2	
46	₹	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	0.89%		1.18%	45.27%	52.66%		4	11.36%
47	₹	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.		2.72%	8.42%	10.40%	78.47%		4	6.19%
48	₽	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	1.25%	0.46%	43.89%	23.26%	31.13%		4	9.13%
49	₽	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	4.56%	10.25%	63.55%	15.10%	6.53%		3	22.58%
50	₹	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	3.10%	3.68%	35.94%	16.05%	41.24%		3	7.81%
51	₹	Distribution Transformer	Pole Mounted Transformer	No.	3.53%	8.47%	40.25%	24.85%	22.90%		3	9.64%
52	₹	Distribution Transformer	Ground Mounted Transformer	No.	5.63%	3.01%	31.40%	27.13%	32.83%		3	8.64%
53	₽	Distribution Transformer	Voltage regulators	No.			14.29%	38.10%	47.62%		4	
54	₽	Distribution Substations	Ground Mounted Substation Housing	No.	2.04%	2.43%	74.67%	7.11%	13.75%		4	4.47%
55	L	LV Line	LV OH Conductor	km			85.90%	7.66%	6.45%		3	2.33%
56	۲	LV Cable	LV UG Cable	km	0.48%	6.36%	20.06%	36.93%	36.17%		2	6.84%
57	۲	LV Streetlighting	LV OH/UG Streetlight circuit	km						100.00%	1	
58	Z	Connections	OH/UG consumer service connections	No.						100.00%	1	
59	ΝI	Protection	Protection relays (electromechanical, solid state and numeric)	No.	-	0.22%	54.39%	23.37%	22.02%		3	0.22%
60	ЫI	SCADA and communications	SCADA and communications equipment operating as a single system	Lot		1.79%	36.69%	38.48%	23.04%		4	1.79%
61	All	Capacitor Banks	Capacitors including controls	No.	-		85.96%	7.02%	7.02%		3	
62	ΝI	Load Control	Centralised plant	Lot	-		100.00%				4	
63	ΝI	Load Control	Relays	No.							N/N	
64	ЧI	Civils	Cable Tunnels	km		'	8.62%	1.11%	90.27%		4	'

Г

																				Company Name	Vector Limited	
SCHI This sche	EDULE 12k	D: REPORT ON reakdown of current and	FORECAST C	APACITY d constraints for each zone	e substation. The data p	rovided should be cor	sistent with the infon	mation provided in th	e AMP. Information	n provided in this tak	le should relate to th	he operation of the n	network in its norm	sal steady state o	ofiguration.				AM	P Planning Period	1 April 2025 - 31 March 2035	_
sch ref	12b(i): Sys	tem Growth - Zo	ne Substation																			
			Not Requ before DI	ired Not Required 2025 before DY2025 Installed	Not Required before DY2025	Not Required before DY2025	Not Required before DY2025	Not Required before DY2025 b	Not Required Not efore DY2025 bef	Required N ore DY2025 by	ot Required No rfore DY2025 bej	t Required Not fore DY2025 befor	Required Not R re DY2025 befor	equired Not e DY2025 befo	Required N re DY2025 be	x Required No. Ore DY2025 bey	t Required N fore DY2025 D	st Required before V2025	Not Required before DY2025	Not Required before DY2025		
80	99	disting Zone Cur distributions	rent peak load Curren MVA) load o	operating operating ried (MVA)	Current security of supply classification (type)	f Ourrent constrain type	t Current available canacity (MVA)	Peak load o	Available Se apacity +5 yrs cla (MVA)	curity of supply ssification +5 yrs P	M eak load period c	lin. available Max apacity +10 cap vrs (MVA) vrs	acity +10 classi	supply fication +10 s (hone) co	Forecast otraint type	ear of any forecast constraint o	Constraint vimary cause	Constraint solution	Constraint colution progracs	Temporary constraint solution remainine lifestion	f volkenstion	
0	_<	tkinson Road	18 Winter		0 N-1	No constraint	2	Winter	21 11-		finter		1-N 61	No c	onstraint	None						
10	~	uckland Airport	21 Summer	~	S N+1	No constraint	R	Summer	8 N-1	switched Si	ammer		4 N-1 S	witched No c	onstraint	None						_
11	_ <	vondale	27 Winter	~	0 N-1	No constraint	1	Winter	11 11	-	finter		6 N-1 S	witched No c	onstraint	20 10+ tra	ne substation nsformer U	decided	No active planning	Not applicable		· · ·
12	<u> </u>	virds	29 Winter	~	0 N-1 switched	No constraint	"	Winter	8 N-1	switched	linter		4 N-1 S	witched No c	onstraint	10+ 10+ 120	ne substation nsformer 0	rdecided	No active planning	Not applicable		_
13	8	stmain	9 Winter	-	3 N-1 switched	No constraint		Winter	2 141	switched W	linter		2 N-1 SI	witched No c	onstraint	20 10+ tra	ne substation Insformer U	decided	No active planning	Not applicable		_
14	ď	almoral	13 Winter	2	0 N-1	No constraint	2	Winter	19 N-1	*	linter		19 N-1	No c	onstraint	None						_
15	đ	elmont	12 Winter	1	3 N-1	No constraint	1	Winter	10 N-1	*	linter		9 N-1 S	witched No c	onstraint	None						_
16	đ	g Omaha	7 Winter	-	S N-1 switched	No constraint		Winter	5 N-1	switched W	linter		3 N-1 S	witched Sec.	, ke	10+ Circ	btransmission but	etwork upgrade	Solution confirmed		Additional 11kV backstop feeders + generation	_
17		rkdale	21 Winter		0 N-1	No constraint	10	Winter	19 N-1		linter		17 N-1	Noc	onstraint	None						_
18	8	ickworks	9 Winter	1	5 N-1 switched	No constraint		Winter	3 N-1	switched	linter		1 N-1 S	witched No c	onstraint	20 10+ tra	ne substation nsformer U	decided	No active planning	Not applicable		<b></b>
19	æ	rowns Bay	15 Winter	1	3 N-1	No constraint	10	Winter	9 N-1		linter		7 N-15	witched No c	onstraint	None						_
20	đ	ush Road	23 Winter	2	4 N-1	No constraint	22	Winter	23 N-1	*	linter		20 N-1 s	witched No c	onstraint	None						_
21	đ	arbine	13 Summer	2	0 N-1	No constraint	1	Summer	16 N-1	*	linter		15 N-1	No c	onstraint	None						_
22	0	hevalier	22 Winter	-	9 N-1	No constraint	1	Winter	11 N-1		linter		5 N-1 S	witched No c	onstraint	201 10+ tra	ne substation nsformer U	ndecided	No active planning	Not applicable		_
23	0	endon	19 Winter	2	0 N-1	No constraint	11	t Winter	18 N-1	*	linter		18 N-1	No c	onstraint	None						_
24	D	evedon	3 Winter		S N	Security		Winter	0		linter		0	Sec	dity.	o e	tribution back- 0 circuit capacity sc	ther non-traditional Aution	No active planning	> 3 years	Currently using Counties backstop and Kawakawa Bay BESS	-
25	đ	oatesville	10 Winter	-	3 N-1	No constraint	2	Winter	22 N-1	\$	linter		22 N-1	No c	onstraint	None						_
26	đ	rive	23 Winter	2	0 N-1	No constraint	1	Winter	13 N-1	*	linter		8 N-1 S	witched No c	onstraint	20 10+ tra	ne substation nsformer U	rdecided	No active planning	Not applicable		_
27	3	ast Coast Road	13 Winter	2	4 N-1 switched	No constraint	10	Winter	9 N-1	switched W	linter		8 N-1 S	witched No c	onstraint	None						_
28	ä	ast Tamaki	24 Winter	2	0 N-1 switched	No constraint		Winter	0		linter		0	Sec	uity .	4 up	tribution back- circuit capacity N	stwork upgrade	Planning stage		11kV projects to increase offload capacity	_
29	æ	latbush	19 Winter	2	0 N-1	No constraint	12	Winter	14 N-1	\$	linter		13 N-1	No c	onstraint	None						_
30	Υ.	orrest Hill	15 Winter	1	3 N-1	No constraint	11	Winter	16 N-1	*	linter		15 N-1 S	witched No c	onstraint	None						_
31	ũ	reemans Bay	18 Winter	-	8 N-1	No constraint	1	Winter	15 N-1	switched W	linter		11 N-1 S	witched No c	onstraint	10+ Zor 10+ tra	ne substation nsformer U	ndecided	No active planning	Not applicable		_
32	<u></u>	len Innes	13 Winter	2	0 N-1	No constraint	3	Winter	22 N-1	5	linter		18 N-1	No c	onstraint	None						-
33	J	reenhithe	11 Winter	2	0 N-1 switched	No constraint	0	Winter	9 N-1	witched	linter		8 N-1 S	witched No c	onstraint	None						
34	J	reenmount	39 Summer	4	0 N-1	No constraint	27	Winter	14 N-1	switched	linter		7 N-1 S	witched No c	onstraint	10+ 10	tribution back- circuit capacity U	rdecided	No active planning	Not applicable		_

# 4.4 Appendix 4 - Forecast capacity (Schedule 12b)

_		_	_	_	_	_	_		-	-	_	_	_	_			_		_	_			-	_	_	_	_	_	_	_	_	_	_	
insformer ans subtransmission circuit					ansformer and subtransmission circuit				val case will be offset though 11kV to 22kV conversion mme to off load at 11kV bus	le transformer										hai case will be offset though 11kV to 22kV conversion mme to off load at 11kV bus	colas Zone Substation						einforcement to offload zone substation				eld third transformer		ibtran circuits and 2nd transformer	
3rd Tra			iot applicable		2nd Tr				Margin	Upgrad	kot applicable	kot applicable		kot applicable			tot applicable			Margin	New N	kot applicable	tot applicable		tot applicable		11kV n				Rockfie	tot applicable	New su	
Planning stage			Vo active blanning		mplementation itage				mplementation stage	mplementation stage	Vo active Manning	tio active Manning		Vo active blanning			Vo active blanning			lanning stage	mplementation stage	Vo active	Vo active		Vo active Manning		mplementation stage				Planning stage	Vo active blanning	Manning stage	
twork upgrade			decided		twork upgrade				twork upgrade	twork upgrade	decided	decided		decided			decided			twork upgrade	twork upgrade	decided	decided		decided		twork upgrade				twork upgrade	decided	twork upgrade	
tribution back- circuit capacity Net			ie substation Isformer Und		ie substation Isformer Net				tribution back- circuit capacity Net	e substation Informer Net	e substation Ind	ie substation Isformer Und		ne substation Nsformer Und			le substation Isformer Und			le substation Isformer Net	le substation Informer Net	e substation Inducer Und	e substation Ind		ie substation Isformer Und		tribution back- circuit capacity Net				tribution back- circuit capacity Net	te substation Isformer Und	stransmission uit Net	
10+ Dist up (	None	None	Zon 10+ trar	None	Zon 0 trar	None	None	None	10+ USI	4 trar	20n 10+ trar	Zon 10+ trar	None	2on 10+ trar	None	None	2on 10+ trar	None	None	20n 10+ trar	2on 9 trar	20n 10+ trar	2on 10+ trar	None	Zon 10+ trar	None	Dist up:	None	None	None	Dist up.	20n 10+ trar	Sub 10+ circ	Nime
unity	constraint	constraint	constraint	constraint	acity	constraint	constraint	constraint	constraint	urity	constraint	constraint	constraint	constraint	constraint	constraint	constraint	constraint	constraint	constraint	urity	constraint	constraint	constraint	constraint	constraint	adiy	constraint	constraint	constraint	acity	constraint	constraint	motraint
Sec	1 switched No	1 No	1 switched No	1 No	1 switched Cap	1 No	1 No	1 No	2	Sec	1 switched No	1 switched No	1 No	1 switched No	1 switched No	1 switched No	1 switched No	1 No	1 No	2	Sec	1 switched No	1 switched No	1 No	1 switched No	1 No	1 switched Cap	1 No	1 switched No	1 switched No	1 switched Cap	1 switched No	1 switched No	1 cuitrhad No
0	9	15 N	4	12 N	0	21 N	18 N-	8	0	0	2 14	6 14	19 1	3 N	9	17 N	3 N	6 N	4	0	0	<u>4</u>	5	7 14	4	19 N	v o	12 N	17 N	S N	0	3 N	1 N	16 NL
Summer	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter	Winter
N-1 switched	N-1 switched	N-1	N-1 switched	N-1	N-1 switched	N+1	N-1	11	N-1	z	N-1 switched	N-1	N-1	N-1 switched	N-1 switched	N-1 switched	N-1 switched	N-1	N-1	z	N-1	N-1	N-1 switched	N-1	N-1 switched	N-1	N-1 switched	N-1	N-1 switched	N-1 switched	N-1 switched	N-1 switched	N-1 switched	11
S	11	17	7	13	0	26	21	10	2	0	4	12	22	6	9	19	11	6	4	0	19	16	6	10	6	25	0	12	21	7	1	s	4	00
8 Summer	12 Winter	19 Winter	9 Winter	14 Winter	- Winter	28 Winter	22 Winter	11 Winter	4 Winter	29 Winter	9 Winter	23 Winter	25 Winter	7 Winter	9 Winter	21 Winter	17 Winter	6 Winter	4 Winter	5 Winter	63 Winter	22 Winter	11 Winter	14 Winter	7 Winter	29 Winter	3 Winter	14 Winter	23 Winter	7 Winter	22 Winter	6 Winter	3 Winter	20 Winter
No constraint	No constraint	No constraint	No constraint	No constraint	Capacity	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	No constraint	Mn mostraint
N-1 switched	N-1 switched	N-1	N-1 switched	N-1	N-1 switched	1-1	N-1	N+1	N-1	N-1	N-1	1+1	N-1	N-1 switched	N-1 switched	N-1 switched	N-1	N-1	N-1	N-1	N-1	N-1	N-1 switched	N-1	N-1 switched	N-1	N-1 switched	N-1	N-1	N-1 switched	1-1	N-1 switched	N-1 switched	
20	20	15	13	23	13	24	20	25	12	8	13	20	40	13	15	37	20	80	20	40	150	40	20	30	13	40	40	15	20	16	40	13	14	uc
5 Summer	8 Winter	1 Winter	5 Winter	Winter	8 Winter	Winter	8 Winter	1 Winter	8 Winter	t Winter	5 Winter	/ Winter	5 Winter	8 Winter	5 Winter	5 Winter	8 Winter	Winter	5 Winter	5 Summer	7 Summer	8 Winter	Winter	Summer	8 Winter	1 Winter	/ Winter	0 Winter	L Summer	Winter	8 Winter	/ Winter	/ Winter	2 Winter
2		1	ey 1		1	1	1	kv 1	>	~	-	nt 1	m	1		1	2		1	~			~	2	1	3	s		2					-
Hans	Hauraki	Helensville	Henderson Vall	Highbrook	Highbury	Hillcrest	Hillsborough	Hobson 110/11	Hobson 22/11k	Hobson 22kV	Hobsonville	Hobsonville Poi	Howick	James Street	Kaukapakapa	Keeling Road	Kingsland	Laingholm	Lichfield	Liverpool	Liverpool 22kV	Mangere Centr	Mangere East	Mangere West	Manly	Manukau	Manurewa	Maraetai	McKinnon	Mcleod Road	McNab	Milford	Mt Albert	Mt Wallington
36	37	38	39	40	41	42	43	44	45	46	42	48	65	50	51	52	53	25	55	56	25	58	23	09	61	62	63	25	65	99	29	68	69	uz.
			-				-		-			-	-											-	-	-	-	-	-	-	-	-	-	

												<b>Zrine</b> cuhctation		Monactiva		
71	New Lynn	14 Winter	13	N-1 No	o constraint	11 Winter	10 N-1	Winter	7 N-1 switched	No constraint	10+	transformer	Undecided	planning	Not applicable	
22	Newmarket	 33 Winter	40	N-1 No	constraint	27 Winter	19 N-1	Winter	8 N-1 switched	No constraint	10	Zone substation transformer	Undecided	No active planning	Not applicable	
73	Newton	18 Winter	19[	N-1 No	constraint	14 Winter	6 N-1 switched	Winter	0 N-1 switched	Capacity	0	Subtransmission circuit	Network upgrade	Planning stage		New planned Mt Eden zone substation to offload Newton
74	Ngataringa Bay	8 Winter	13	N-1 switched Sev	curity	0 Winter	N	Winter	N 0	Security	•	Other	Network upgrade	Implementation stage		Substation will be decomissioned and Belmont will supply the area
75	Northcote	5 Winter	151	N-1 switched No	constraint	10 Winter	8 N-1 switched	Winter	7 N-1 switched	No constraint	None					
76	Onehunga	17 Winter	151	N-1 No	constraint	11 Winter	8 N-1 switched	Winter	3 N-1 switched	No constraint	ģ	Zone substation transformer	Undecided	No active planning	Not applicable	
77	Orakel	22 Winter	18	N-1	constraint	14 Winter	12 N-1	Winter	8 N-1 switched	No constraint	None					
78	Oratia	5 Winter	101	N-1 switched No	constraint	5 Winter	5 N-1 switched	Winter	5 N-1 switched	No constraint	None					
79	Orewa	23 Winter	20 1	N-1 No	constraint	17 Winter	14 N-1	Winter	10 141	No constraint	ģ	Zone substation transformer	Undecided	No active planning	Not applicable	
80	Otara	32 Winter	30	N-1 No	constraint	18 Winter	12 N-1 switched	Winter	S N-1 switched	No constraint	ţ	Zone substation transformer	Undecided	No active planning	Not applicable	
81	Pacific Steel	18 Winter	4	N-1 No	constraint	22 Winter	22 N-1	Winter	22 №1	No constraint	None					
82	Pakuranga	20 Winter	20	N-1	constraint	18 Winter	18 N-1	Winter	17 141	No constraint	None					
83	Papakura	29 Winter	201	N-1 switched No	constraint	9 Winter	6 N-1 switched	Winter	2 N-1 switched	No constraint	10 10	Zone substation transformer	Undecided	No active planning	Not applicable	
84	Parnell	16 Summer	15 1	N-1 switched No	constraint	11 Summer	11 N-1 switched	Summer	7 N-1 switched	No constraint	ţ	Zone substation transformer	Undecided	No active planning	Not applicable	
85	Ponsonby	16 Winter	12	N-1 No	constraint	8 Winter	6 N-1 switched	Winter	2 N-1 switched	No constraint	ģ	Zone substation transformer	Undecided	No active planning	Not applicable	
86	Quay	12 Summer	20 1	N-1 No	constraint	8 Summer	5 N-1	Summer	4 N.1	No constraint	None					
87	Quay 22kV	43 Summer	60	W1 No	constraint	17 Summer	1 141	Summer	<u>v</u>	Security	و	Distribution back- up circuit capacity	Network upgrade	Implementation stage		Upgrade transformers
88	Ranui	13 Winter	20 1	N-1 switched No	constraint	7 Winter	0 N-1 switched	Winter	0 N-1 switched	Capacity	٥	Zone substation transformer	Network upgrade	Planning stage		2nd transformer
89	Red Beach	22 Winter	201	¥1 No	constraint	18 Winter	12 N-1 switched	Winter	7 N-1 switched	No constraint	ţ	Zone substation transformer	Undecided	No active planning	Not applicable	
90	Remuera	25 Winter	201	N-1 switched No	constraint	15 Winter	12 N-1 switched	Winter	9 N-1 switched	No constraint	ţ	Zone substation transformer	Undecided	No active planning	Not applicable	
91	Riverhead	15 Winter		N-1 switched No	constraint	0 Winter	0 N-1 switched	Winter	0 N-1 switched	Capacity	-	Zone substation transformer	Network upgrade	Implementation stage		Replace transformers
92	Rockfield	20 Winter	20	N-1	constraint	20 Winter	17 N-1	Winter	13 N-1 switched	No constraint	None					
93	Rosebank	24 Winter	22	N-1	constraint	19 Winter	17 N-1	Winter	13 N-1 switched	No constraint	None					
94	Rosedale	12 Winter	20 1	N-1 No	constraint	28 Summer	18 N-1	Winter	13 N-1 switched	No constraint	None					
95	Sabulite Road	20 Winter	13	N-1 switched No	constraint	5 Winter	3 N-1 switched	Winter	0 N-1 switched	Capacity	ţ	Zone substation transformer	Network upgrade	Implementation stage		Replace transformers
96	Sandringham	18 Winter	20 1	N-1	constraint	22 Winter	14 N-1	Winter	8 N-1 switched	No constraint	10+	Zone substation transformer	Undecided	No active planning	Not applicable	
97	Simpson Road	5 Winter	80	N-1 switched No	constraint	3 Winter	3 N-1 switched	Winter	2 N-1 switched	No constraint	None					
98	Snells Beach	9 Winter	00	N-1 switched Cai	pacity	- Winter	0 N-1 switched	Winter	0 N-1 switched	Capacity	0	Zone substation transformer	Network upgrade	Implementation stage		New Sandspit Zone substation to offload Snells Beach
99	South Howick	26 Winter	20	N-1 No	constraint	14 Winter	12 N-1 switched	Winter	9 N-1 switched	No constraint	None					
100	Spur Road	14 Winter	20	N-1 No	constraint	26 Winter	23 N-1	Winter	21 N-1	No constraint	None					
101	St Heliers	19 Winter	18	N-1	constraint	16 Winter	14 N-1	Winter	11 N-1	No constraint	None					
102	St Johns	18 Winter	20	N-1 No	constraint	22 Winter	20 N-1	Winter	16 N-1	No constraint	None					
103	Sunset Road	13 Winter	13	N-1 No	constraint	12 Winter	10 N-1	Winter	7 N-1 switched	No constraint	10+	Zone substation transformer	Undecided	No active planning	Not applicable	
104	Swanson	12 Winter	13 1	N-1 switched No	constraint	0 Winter	0 N-1 switched	Winter	0 N-1 switched	Capacity	1	Zone substation transformer	Network upgrade	Implementation stage		2nd Transformer
105	Sylvia Park	 17 Summer	20	N-1 No	constraint	13 Summer	13 N-1	Summer	13 N-1	No constraint	None					

Tatenie         33         Woter         35         Number         Capacity         Capacity         Capacity         Capacity         Capacity         Capacity         Capacity         Commentant         Commentant         Commentant         Commentant         Capacity         Capac
Tention         0         Winter         0
Lensis         33         Venter         34         Venter         35         Venter         36         Venter         Venter         36         Venter
Tationic         33         Woter         34         Woter         35         Woter         36         Woter         36         No           Tationic         7         Woter         7         Woter         7         Woter         26         No         26         No           Tationic         7         Woter         70         No         26
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Tatement         33         Wretter           Tatempois         7         Wretter         1           Tatempois         23         Wretter         1           Tehny         8         1         1         1           Tehny         8         1         Wretter         1         1           Tehny         8         1         Wretter         1 <td< td=""></td<>
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Tatarici Tataprio TerAntin TerPippipa Terpiy Peringe band Weither Weitherd Weitherd Weitherd Weitherd Weitherd

				0	ampany Name	>	ector Limited	
				AMP F	Ianning Period	1 April 2	025 - 31 Marcl	1 2035
SC This: The a	EDULE 12c: REPORT ON FORECAS edule requires a forecast of new connections (by consul mptions used in developing the expenditure forecasts in	T NETWORK DEMAND mer type), peak demand and energy volumes for the disclosure year and in Schedule 11a and Schedule 11b and the capacity and utilisation forecas	vd a 5 year planning period asts in Schedule 12b.	d. The forecasts sho	uld be consistent wit	h the supporting infor	mation set out in the	AMP as well as
ch rej								
~	12c(i): Consumer Connections							
00 C	Number of ICPs connected during year by con	sumertype	Current Variation	1.00	Number of o	onnections		2772
10			31 Mar 25	21 Mar 26	21 Mar 27	CT+3 31 Mar 28	21 Mar 29	21 Mar 30
11	Consumer types defined by EDB*							
12	Residential & Small Medium Enterprise (Si	ME)	13,621	12,327	11,788	13,109	12,796	10,322
13	Industrial & Commercial		142	179	179	179	179	133
14								
15								
16								
17	Connections total		13,763	12,506	11,967	13,288	12,975	10,455
18	*include additional rows if needed							
2 2 2								
5	Distributed generation		31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30
23	Number of connections made in year		1,072	1,473	1,473	1,473	1,473	1,473
24	Capacity of distributed generation installed	d in year (MVA)	10	13	13	13	13	13
25 26	12c(ii) System Demand		Current Year CY	CY+1	CY+2	CV+3	CY+4	CY+5
27	Maximum coincident system demand	(MM)	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30
28	GXP demand		1,787	1,913	1,994	2,090	2,206	2,341
29	plus Distributed generation output at HV and at	bove	15	15	15	15	15	15
30	Maximum coincident system demand		1,802	1,928	2,009	2,104	2,221	2,356
31	less Net transfers to (from) other EDBs at HV a	nd above						
32	Demand on system for supply to consumers	connection points	1,802	1,928	2,009	2,104	2,221	2,356
33	Electricity volumes carried (GWh)							
34	Electricity supplied from GXPs		8,813	8,921	9,812	10,113	10,475	10,840
35	less Electricity exports to GXPs							
36	plus Electricity supplied from distributed genera	ation	182	182	182	182	182	182
37	less Net electricity supplied to (from) other EDE	10						
ŝ	Electricity entering system for supply to ICP3		266,8	9,104	266'6	562'01	10,657	11,023
39	less Total energy delivered to ICPs		8,648	8,752	9,608	9,898	10,245	10,597
\$9	Losses		348	352	386	398	412	426
4 4	l and finders		706.2	E 407	704.0	2001	6607	796-3
4	LOad Tactor		R/10	RH	R/10	92.QC	9K00	5K5C
43	Loss ratio		3.9%	3.9%	3.9%	3.9%	3.9%	3.9%
1								

# 4.5 Appendix 5 - Forecast network demand (Schedule 12c)

			·	Company Name		Vector Limited		
			AMP	Planning Period	1 April	2025 – 31 Marc	ch 2035	
			Network / Sub-	-network Name		Vector Limited		
S	CHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATIC	NO		1				
Ψ, Ψ, Ψ	s schedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts sh slanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.	ould be consistent wit	th the supporting info	ormation set out in th	e AMP as well as th	e assumed impact of	f planned and	
8 8 9		Current Year CY 31 Mar 25	CY+1 31 Mar 26	CY+2 31 Mar 27	CY+3 31 Mar 28	CY+4 31 Mar 29	CY+5 31 Mar 30	
01	SAIDI Class B (planned interruptions on the network)	1,211	128.8	128.8	128.8	128.8	128.8	_
12	Class C (unplanned interruptions on the network)	104.8	110.1	110.1	110.1	110.1	110.1	
13	SAIFI							
14	Class B (planned interruptions on the network)	0.58	0.63	0.63	0.63	0.63	0.63	_
15	Class C (unplanned interruptions on the network)	1.34	1.40	1.40	1.40	1.40	1.40	
	Note: The SAIDI and SAIFI forecast in Schedule 12d are calculated based on their normalisa	ation.						
				Company Name		Vector Limited		
			AMP	Planning Period	1 April	2025 – 31 Marc	ch 2035	
			Network / Sub-	-network Name		Southern		
S H M	CHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATIC s schedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts shu blanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.	ON ould be consistent wit	th the supporting infe	ormation set out in th	e AMP as well as th	e assumed impact of	f planned and	
schr. 8 9	ja	Current Year CY 31 Mar 25	CY+1 31 Mar 26	CY+2 31 Mar 27	CY+3 31 Mar 28	CY+4 31 Mar 29	CY+5 31 Mar 30	
11	SAIDI Class B folanned interruptions on the network)	50.4	53.9	53.9	53.9	53.9	53.9	
12	Class C (unplanned interruptions on the network)	48.8	46.1	46.1	46.1	46.1	46.1	
13	SAIFI							
14	Class B (planned interruptions on the network)	0:30	0.28	0.28	0.28	0.28	0.28	
15	Class C (unplanned interruptions on the network)	0.64	0.62	0.62	0.62	0.62	0.62	

# 4.6 Appendix 6 - Forecast interruptions and duration (Schedule 12d)

			J	ompany Name	1	/ector Limited		
			AMP PI	lanning Period	1 April 2	2025 – 31 Marcl	h 2035	
			Network / Sub-r	network Name		Northern		
SCH This se unplar	<b>IEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATIC</b> thedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts sho ned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.	<b>)N</b> ould be consistent with	the supporting infor	mation set out in the	e AMP as well as the	e assumed impact of I	planned and	
sch ref								
90		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	
6		31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29	31 Mar 30	
10	SAIDI							
11	Class B (planned interruptions on the network)	66.7	74.9	74.9	74.9	74.9	74.9	
12	Class C (unplanned interruptions on the network)	56.0	64.0	64.0	64.0	64.0	64.0	
13	SAIFI							
14	Class B (planned interruptions on the network)	0.28	0.35	0.35	0.35	0.35	0.35	
15	Class C (unplanned interruptions on the network)	0.70	0.79	0.79	0.79	0.79	0.79	

# 4.7 Appendix 7 - Mandatory explanatory notes on forecast information (Schedule 14a)

- 1. This Schedule requires EDBs to provide explanatory notes to reports prepared in accordance with clause 2.6.6.
- 2. This Schedule is mandatory EDBs must provide the explanatory comment specified below, in accordance with clause 2.7.2. This information is not part of the audited disclosure information, and so is not subject to the assurance requirements specified in Section 2.8.

Commentary on the difference between nominal and constant price capital expenditure forecasts (Schedule 11a)

3. In the box below, comment on the difference between nominal and constant price capital expenditure for the current disclosure year and 10 year planning period, as disclosed in Schedule 11a.

# BOX 1: COMMENTARY ON DIFFERENCE BETWEEN NOMINAL AND CONSTANT PRICE CAPITAL EXPENDITURE FORECASTS

Vector has used the capital expenditure inflator based on the model used by the Commerce Commission in its DPP price reset on 1 April 2025. We have used a forecast of the Capital Goods Price Index (CGPI) as the inflator with a compounded uplift of 0.80% specified by the Commerce Commission.

Vector has used the NZIER (New Zealand Institute of Economic Research) September 2024 CGPI forecast up to December 2030. Thereafter, we have assumed a long-term CGPI inflation rate of 2.0% with a compounded uplift of 0.80%.

The capex inflator forecast reduces from 4.36% in RY25 to 2.82% in RY32 and is stable thereafter.

The constant price capital expenditure forecast is inflated by the above-mentioned index to convert to a nominal price capital expenditure forecast.

Commentary on the difference between nominal and constant price operational expenditure forecasts (Schedule 11b)

4. In the box below, comment on the difference between nominal and constant price operational expenditure for the current disclosure year and 10-year planning period, as disclosed in Schedule 11b.

BOX 2: COMMENTARY ON DIFFERENCE BETWEEN NOMINAL AND CONSTANT PRICE OPERATIONAL EXPENDITURE FORECASTS

Vector has used the operational expenditure inflator based on the model used by the Commerce Commission in its DPP price reset on 1 April 2025. We have used an inflator which is a mix of the Producer Price Index (PPI) and the Labour Cost Index (LCI) with a compounded uplift of 0.30% specified by the Commerce Commission. The weighting between PPI (40%) and LCI (60%) is as per the Commission's model.

Vector has used the NZIER (New Zealand Institute of Economic Research) September 2024 PPI (Producer Price Indexinputs) and LCI (Labour Cost Index) forecasts up to December and June 2028 respectively. Thereafter, we have assumed a long-term inflation rate of 2.0% for both metrics with the 0.30% compounded uplift.

The constant price operational expenditure forecast is inflated by the above-mentioned index to convert to a nominal price operational expenditure forecast.

# 4.8 Appendix 8 - Certification for year-beginning disclosures (Schedule 17)

# Schedule 17 Certification for Year-beginning Disclosures

Clause 2.9.1

We, Bruce Turner and Paul Hutchison, being directors of Vector Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

- a) The following attached information of Vector Limited prepared for the purposes of clauses 2.6.3, 2.6.6 and 2.7.2 of the Electricity Distribution Information Disclosure Determination 2012 in all material respects complies with that determination.
- b) The prospective financial or non-financial information included in the attached information has been prepared on a basis consistent with regulatory requirements or recognised industry standards.
- c) The forecasts in Schedules 11a, 11b, 11c, 12a, 12b, 12c and 12d are based on objective and reasonable assumptions which both align with Vector Limited's corporate vision and strategy and are documented in retained records.

binter

Director

Director

28 March 2025

Date





