Firstlightnetwork®

Asset Management Plan Update

31 March 2024

EXECUTIVE SUMMARY

2024 Asset Management Plan Update

Our Asset Management Plan (AMP) Update builds on our 2023 AMP and provides updated expenditure forecasts for the coming 10-year period. It sets out our reliability performance for the regulatory year ending 31 March 2024 and explains material changes to our investment plans since our 2023 AMP.

A safe and resilient network

Firstlight's electricity network spans the Gisborne, Wairoa, and the East Coast districts and connects the national electricity grid to our customers' homes and workplaces. The network provides residential and business customers a safe, secure, and reliable electricity distribution service.

Safety remains our foremost organisational value and we challenge ourselves to put safety and well-being at the heart of everything we do. We continue to take an uncompromising approach to safety and will act when we believe there are safety risks to the public, our staff, or service providers.

Network resilience is becoming an urgent priority for the New Zealand electricity industry. A changing climate brings with it more frequent and more powerful storms and floods. Climate modelling and our own experiences suggest that extreme weather events will continue to increase in both frequency and intensity over the coming decades. Extreme weather adversely impacts the performance and safety of electricity assets. As a result, climate change poses material risks to our network and its performance.

Cyclone Gabrielle remains a sobering reminder of the destructive nature of severe weather events and that climate change is likely to make weather patterns in New Zealand less predictable, and more extreme over time. We are continuing to address the impacts of this event, including progressively reinstating damaged sub-transmission assets and improving our ability to access them safely and promptly.

Our assets and operational systems will need to be more resilient to extreme or unforeseen events. Firstlight is adapting its investment approach to improve resilience in the face of increasingly severe weather. To support this, we are committed to managing our assets in a prudent way over the long term.

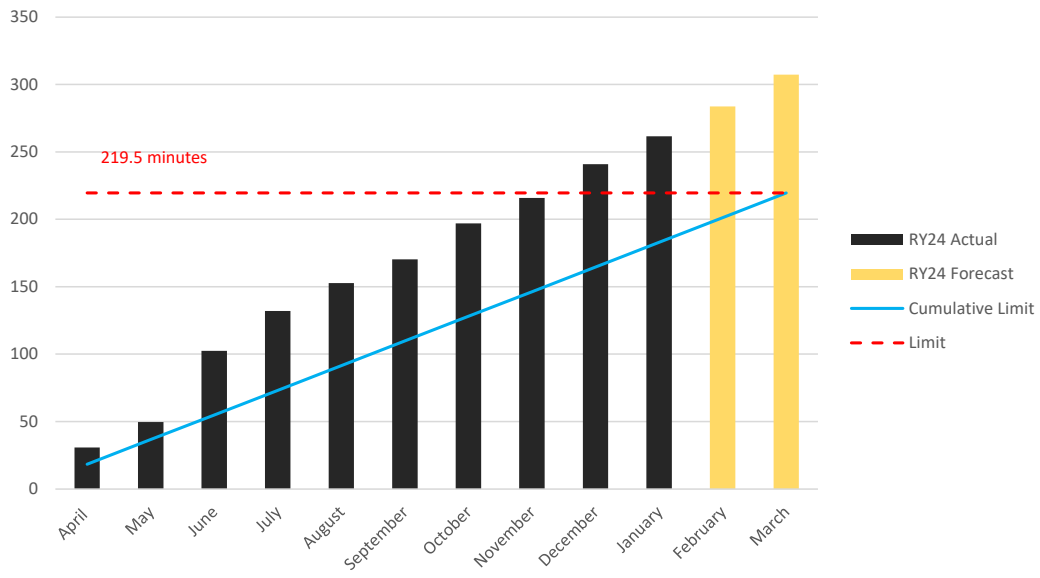
Reliability Performance

Delivering appropriate levels of service reliability is a priority for Firstlight. The levels of service our customers receive are influenced by a range of factors, including asset condition, weather, third-party activities, our capacity to respond to incidents, and network security.

The levels of reliability we can deliver today reflect historical trade-offs between cost and delivered levels of service. Improving service performance is often a long-term undertaking and has cost implications. We recognise that this trade-off should be based on our customer's preferences, balanced with the need to ensure our network is safe.

The 2024 regulatory year has seen a continuation of high impact weather events on the network. As the year progressed a range of factors (discussed in Chapter 2) led to monthly SAIDI continually exceeding our limits and we have breached our annual regulatory limit for unplanned SAIDI (as depicted below).

Cumulative unplanned SAIDI



Based on projections for the remainder of the regulatory year our unplanned SAIFI will remain just below our regulatory limit. There is however limited room for increases and the final result will depend on weather related outages through the remainder of this regulatory year.

As discussed in Chapter 2, the unplanned SAIDI breach has mainly been driven by adverse weather impacting assets and causing slips which led to prolonged outages in difficult to reach locations. This is further exacerbated by the ongoing impacts of previous storm events.

In this AMP Update we set out a series of ongoing and planned improvement initiatives that we expect to improve reliability performance over the coming years.

Improving our Asset Management Capability

Managing long-life electricity assets safely and effectively requires a range of specialised capabilities. This means we need to have the right capabilities and we need to help our staff learn and adapt as the electricity sector evolves. To effectively address the challenges we face, we need to further improve our approach to asset management.

We believe strong asset management drives efficient delivery, and we're continuing to grow our asset management maturity. Capability development (e.g. embedding appropriate processes, systems, and techniques in our business) is essential, and the improvements that we have made in this area include:

- enhanced risk-based modelling using better asset data to identify required renewals

- Integration with the Clarus group to facilitate improvements in data management through the adoption of Maximo CMMS
- embedding an asset-health based (DNO approach[1]) to lifecycle management.

Recognising opportunities to improve our asset management and the challenges we, and the wider electricity distribution sector face, we have developed a continuous improvement programme. These improvements, which will inform our 2025 AMP, will support improved reliability outcomes and are being directed towards aspects that can deliver the most benefits.

2024 AMP Expenditure Forecasts

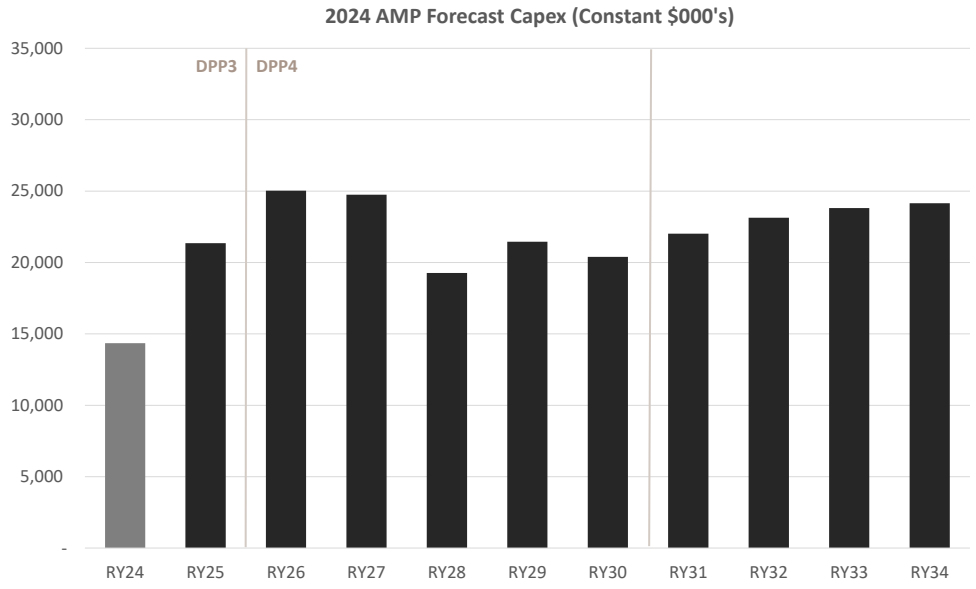
As a lifeline utility, it is critical that we invest prudently to ensure our assets are safe, reliable, and resilient in the longer term. Our renewal investments and operations and maintenance activities help to maintain the condition and performance of our assets and to prevent increases in risk.

Our expected total capital and operating expenditure profiles over the AMP period are set out below. These forecasts represent our best estimate of network need based on currently available information and reflect our current levels of delivery capability.

Capital Expenditure

Firstlight believes that timely asset renewal and modernisation of assets is an important foundation for delivering a safe and resilient network. The capital expenditure (Capex) forecasts in this AMP include targeted investments to deliver these outcomes.

Forecast Capex during the AMP Period (constant RY24)



Our Capex profile varies due to the impact of post-cyclone reinstatement investments and growth-driven projects towards the beginning of the period. The timing of these works

[1] DNO approach refers to the Distribution Network Operators approach adopted by UK distributions businesses.

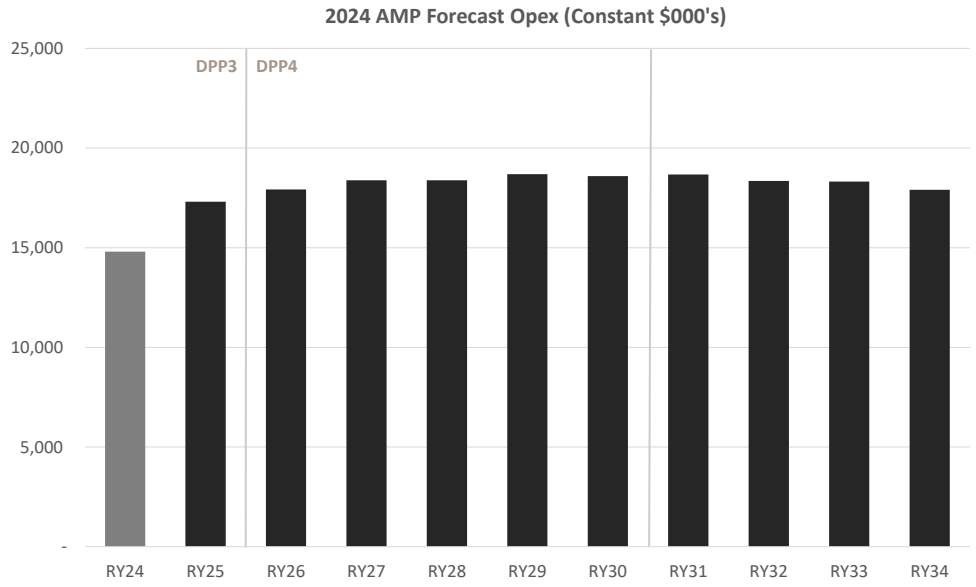
reflects the latest prudent timing for addressing the related needs. Most of the increase in Capex relates to the renewal of our overhead assets, dealing with geohazards, and refurbishing ageing assets. Other renewal programmes are relatively stable over the period.

We are committed to making the necessary levels of investment to ensure a safe, reliable, and resilient distribution service for the communities we serve.

Operating Expenditure

Our planned operating expenditure (Opex) during the AMP period is set out below.

Forecast Opex during the AMP Period (constant RY24)



Our planned Opex is forecast to be relatively stable from RY25 onwards through the AMP period. It reflects the underlying levels of operations and maintenance, support costs, and people costs to manage our network. Consistent with good practice, we plan to improve our maintenance regimes and rely on more proactive work. We have increased expenditure on activities to address service reliability including improved field inspection and increased allowances for incident response. As we progress our renewal programs, we expect that reactive work (e.g. repairs) will reduce over time.

Concluding Comment

Our expenditure forecasts aim to increase network resilience and reliability in response to the escalating impacts of climate change and the inherent risks associated with ageing assets. They have been developed with a focus on providing a safe network that meets the needs of Gisborne, Wairoa, and East Coast communities, now and in the future.

1. INTRODUCTION

Firstlight Network Limited (Firstlight) owns and maintains the electricity distribution assets that supply Gisborne, Wairoa and the East Coast providing electricity to approximately 25,900 customers over an area of approximately 12,000km^2. These regions are geographically isolated with challenging topography and limited access. The network area is predominantly rural with two urban centres.

Firstlight is part of the wider Clarus Group.

This AMP Update builds on our 2023 AMP and provides updated expenditure forecasts for the coming 10-year period. In addition, the AMP Update discusses our reliability for the regulatory year ending 31 March 2024 and explains material changes to our investment plans.

1.1. Objectives of the AMP Update

This AMP Update covers the 10-year period from 1 April 2024 to 31 March 2034 and relates to the electricity distribution services supplied by Firstlight. The AMP meets the requirements of the Electricity Distribution Information Disclosure Determination 2012. Appendix B sets out how the AMP Update meets these requirements.

The AMP was approved by our Board on 15 March 2024.

1.2. Structure of the AMP Update

This document is structured as follows.

Table 1.1: Document Structure

CHAPTER		DESCRIPTION
1	**Introduction**	This chapter
2	**Reliability Performance**	Outlines how the network performed over RY24
3	**Changes to Expenditure Plans**	How our investment plans have changed since our 2023 AMP
APPENDICES		**DESCRIPTION**
A	**Disclosure Schedules**	AMP disclosure schedules required by the Commerce Commission
B	**Disclosure Requirements**	Sets out how the AMP Update meets Information Disclosure requirements
C	**Director's Certificate**	A copy of the AMP's director certification

2. RELIABILITY PERFORMANCE

This chapter discusses our reliability performance during the 2024 regulatory year.

2.1. Performance in RY24

Consistent with the DPP framework, the main reliability measures we monitor are as follows:

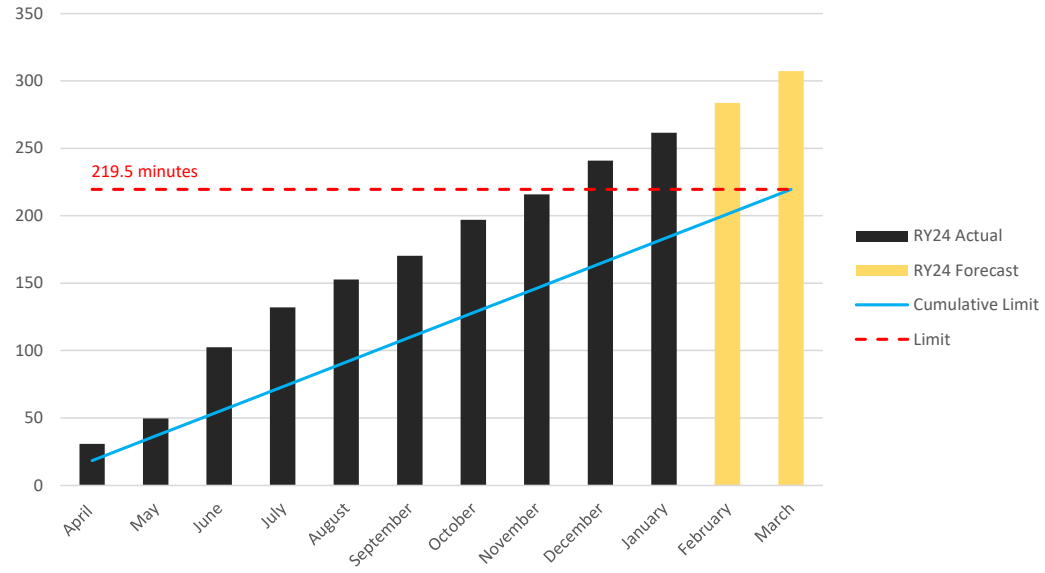
- Unplanned SAIDI
- Unplanned SAIFI
- Planned SAIDI
- Planned SAIFI

While the final performance figures for the 2024 regulatory year were not available at the time of publishing this AMP, we have set out expected outcomes for the year.

2.1.1. Unplanned SAIDI

The 2024 regulatory year has seen a continuation of high impact weather events causing network outages. As the year progressed a range of factors (described below) led to cumulative SAIDI continually exceeding our monthly limits. As depicted in the following chart, we have breached our annual regulatory limit for unplanned SAIDI.

Figure 2.1: Cumulative unplanned SAIDI

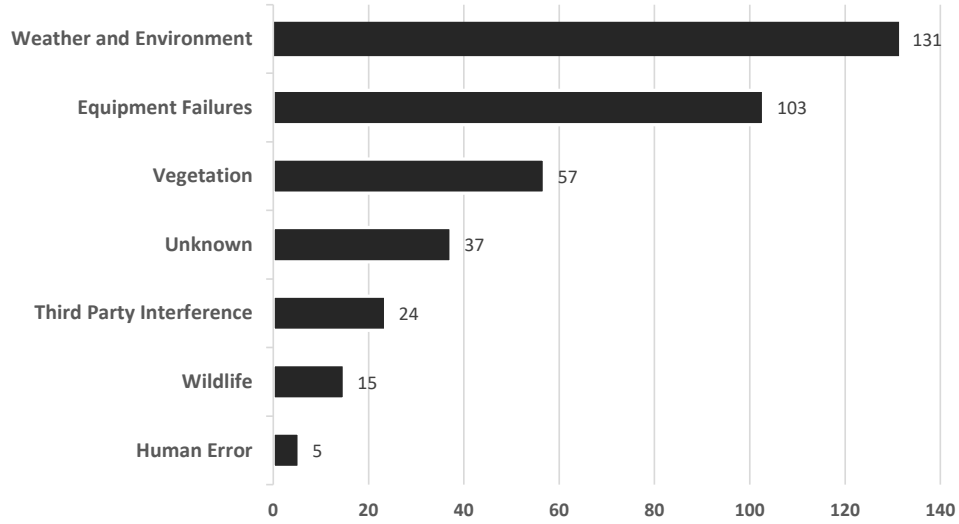


Below we discuss the main drivers for unplanned SAIDI.

SAIDI Drivers in RY24

The main drivers of unplanned interruptions leading to unplanned SAIDI in RY24 are set out below.

Figure 2.2: Contribution of SAIDI drivers (1 April to 31 January)



- **Adverse weather and environment**: the Gisborne and Wairoa regions are increasingly being impacted by adverse weather events. To December 2023 there were 33 extreme weather days[2] in RY24, compared with 44 in RY23 (which included Cyclone Hale and Gabrielle). The increasing number of weather events is the primary driver of unplanned interruptions and SAIDI on our network. The resulting events like slips and medium scale earth movements have led to significant interruptions both through direct damage to assets (e.g. poles) and indirectly through impacts on fault restoration through loss of road access. The continuing trend of wet weather has led to increased incidence of slips impacting our assets. These conditions often result in damage to multiple assets leading to extended restoration times, especially in remote areas.

Figure 2.3: Road loss at Tauwhareparae due to major earth movement

[2] Based on Met Service red and orange events data (as of December 2023) comprising 31 extreme weather days (rain only) and 2 extreme weather days (high wind).

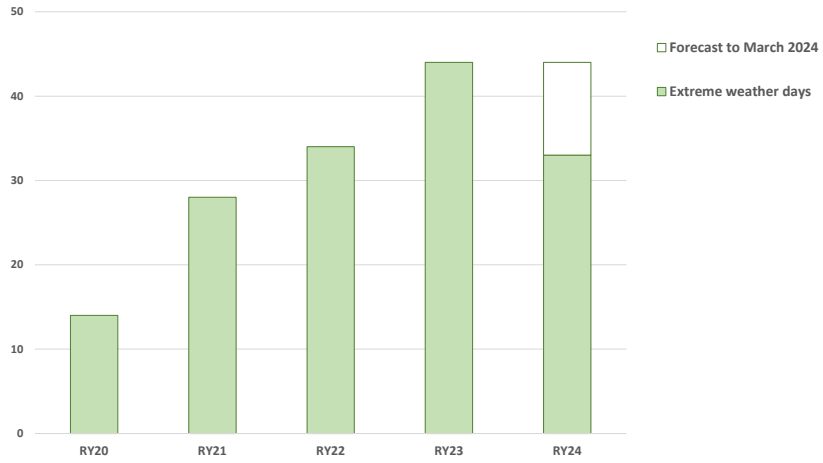
The impact of weather disruptions on our wider work program

The management of reactive works to respond to adverse weather events has had an ongoing impact on our BAU work programs and related planning activities during RY24. To safely restore services to customers, resources needed to be reallocated and planned works to be rescheduled.

As a relatively small EDB with constrained planning resources, repeated contingency responses can undermine our ability to effectively plan and deliver our broader work programs. Such disruptions may impact our long-term programs, including efforts to improve reliability performance. The need for repeated shifts in focus to recovery efforts underscores the need for improved network resilience.

Recognising these growing impacts, we are progressing a range of initiatives to improve our ability to respond to these events. These are discussed in Section 2.2.

Figure 2.4: Increasing incidence of extreme weather days[3]



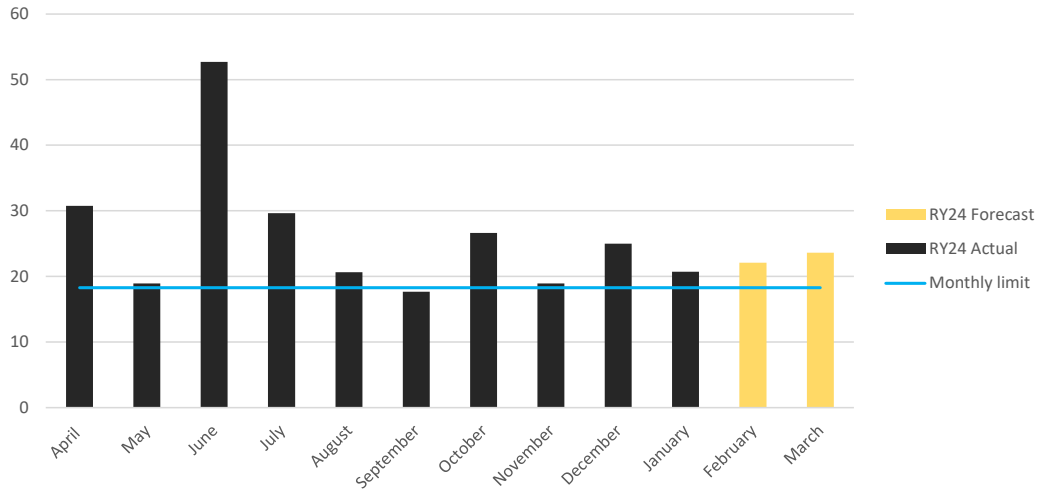
- **Equipment failures**: contributed to interruptions, particularly issues with insulators and conductors. To support our 2025 AMP forecasts we will undertake further analysis into equipment faults to determine patterns and potential mitigations for these faults. Ageing equipment is a key driver notably for copper conductor, which becomes increasingly prone to failure over time.
- **Vegetation**: includes both in-zone and out-of-zone vegetation that lead to contacts with our equipment. This issue is particularly challenging in areas with extensive forestry. Over 75% of vegetation related SAIDI is due to out-of-zone trees, suggesting that regulatory changes are required to effectively address these outages.
- **Wildlife and third-party interference**: involves incidents like vehicle damage to poles. These events continue to be a significant contributor to unplanned SAIDI. There have been numerous wildlife (e.g. birds/possums) incidents but their SAIDI impact was relatively small. Third party interference tends to have a higher relative contribution due to the time required to ensure public and worker safety before rectification work can commence.

[3] Extreme weather days are days where either a red or orange warning is issued that results in a rain or wind extreme weather event: Source Met Service. Forecast values derived from data supplied to December 2023 forecast to EORY

Monthly SAIDI Performance

As is typical practice in the sector, we monitor our monthly performance against a representative monthly limit (derived from our DPP limits).

Figure 2.5: Monthly unplanned SAIDI

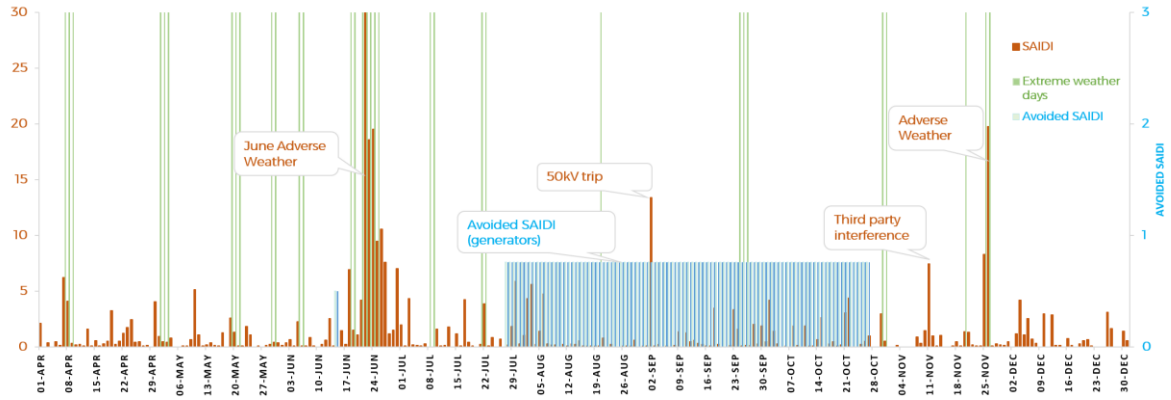


When assessing performance against our monthly limits the following months are of particular note.

- **April:** equipment faults were the main driver for incidents that led to 76 outages resulting in 31 SAIDI minutes.
  - Approximately 75% of SAIDI was caused by equipment faults including a transformer fault in Whangara and several insulator issues
- **June**: adverse weather and environment were the main drivers for incidents that led to 110 outages, resulting in 136 SAIDI (raw), normalised to 52.5 SAIDI minutes.
  - There were four SAIDI major event days
  - Multiple slips in Tauwhareparae and Waimata Rd impacted poles and other assets contributing to 22.5 SAIDI and 15 SAIDI.
  - Poles down due to a slip in Bushy Knoll Rd contributing to 8.3 SAIDI.
  - Many of the outages were relatively long due to limited access to fault locations
  - The graph correlating extreme weather to SAIDI (Figure 2.6 below) shows the link between the month's heavy rain and adverse environment events.
- **July:** equipment faults were the main driver for incidents that led to 52 outages resulting in 25.4 SAIDI minutes.
  - Approx. 60% of SAIDI was caused by equipment faults including a broken conductor in Mahia and a cable fault in Wainui
- **October:** several drivers led to 33 outages resulting in 25 SAIDI minutes.
  - The main incidents included a car vs pole in Wairoa, vegetation through lines in Waimako, Kokako and Onepoto, and a broken crossarm in Tauwhareparae.

- **December**: vegetation and equipment incidents were key drivers in 27 outages resulting in 24 SAIDI minutes.
  - equipment faults in Frasertown and vegetation through lines in Wharekopae Road and SH38

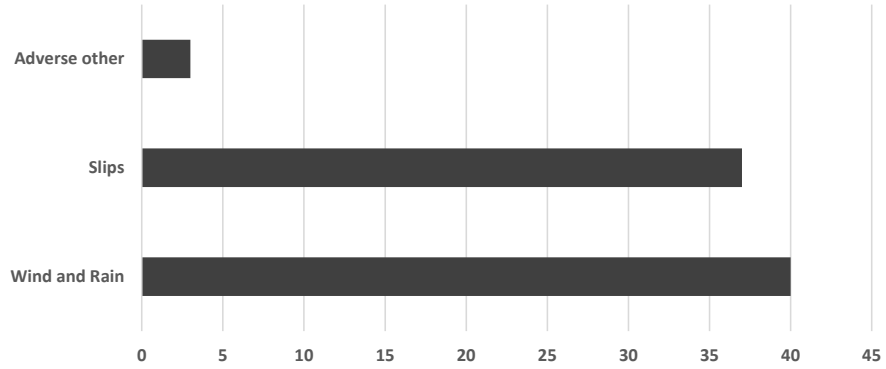
Figure 2.6: Adverse weather and SAIDI incidents (April to December)



Adverse Environment and Adverse Weather

Adverse environment and adverse weather continue to be significant contributors to unplanned SAIDI. While the immediate impact of extreme weather events is obvious, the ongoing impact (e.g. damaged foundations) of these events can emerge and persist months after the event ends.

Figure 2.7: Number of outages by adverse weather and environment cause (April to December)

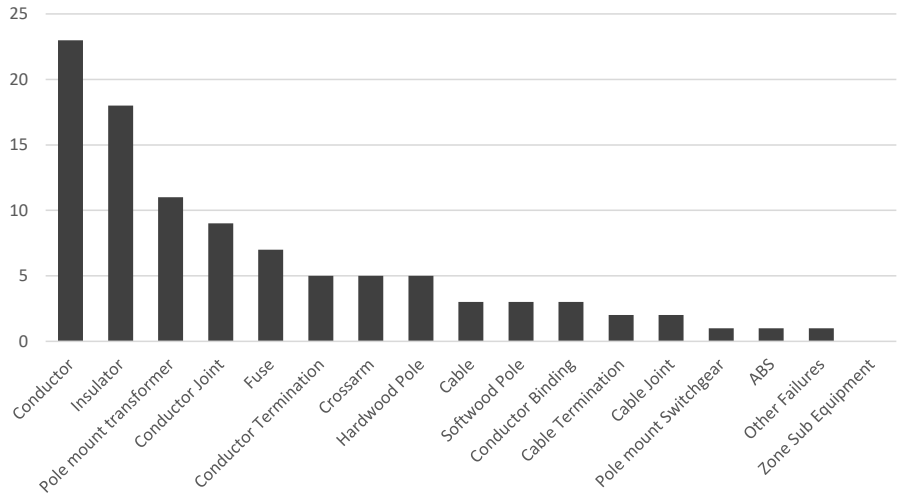


High winds and slips caused almost all unplanned interruptions assigned to adverse weather and environment interruptions. High winds can cause momentary trips as lines clash or momentary vegetation contact but then clear. However, slips often result in multiple structures being damaged, often in remote areas. Slip related incidents are often more difficult to respond to due to compromised road access.

Equipment Failure

The following chart compares different types of equipment failures and their respective contributions to unplanned SAIDI.

Figure 2.8: Main causes of equipment failure SAIDI (April to December)



Given the nature and scale of the overhead network it is typical that the most common interruptions are overhead assets which are more vulnerable to adverse environmental conditions. The most substantial contributors in RY24 were defects in insulators, conductors, and cable joints. A key contributing factor is the age profile of our overhead assets, compounded by increasing exposure to external stresses. The impact of defects in remote locations is significant due to challenges associated with access and repair.

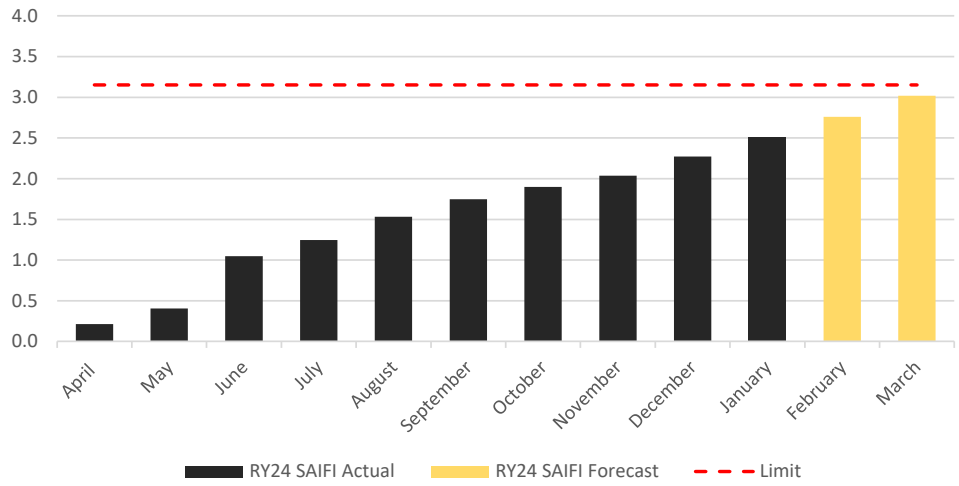
This information underscores the need for targeted asset management and renewal strategies, with a focus on higher-risk assets. Addressing ageing overhead assets requires effective inspections and a proactive approach to renewal, potentially with more resilient designs. This, together with increased deployment of fault detection, improved field response, and the use of generators, will help reduce the future impact of equipment faults.

Based on these issues, several strategies and initiatives have been reflected within our expenditure plans for the AMP period. These are set out in Section 2.2.

2.1.2. Unplanned SAIFI

Based on our projections for the remainder of the regulatory period unplanned SAIFI will remain below our regulatory limit. However, these projections indicate that SAIFI levels are closely approaching the upper boundary of our regulatory limit. This results in a lack of 'headroom', leaving limited margin for increases, especially in the context of the increasing impact of outage drivers (discussed above).

Figure 2.9: Cumulative unplanned SAIFI



This provides further impetus to advance our reliability improvement initiatives. These initiatives are crucial to ensure we comply with regulatory limits and deliver an appropriate level of service to our customers. By proactively progressing these initiatives, we aim to reduce unplanned outages and the likelihood of breaching our regulatory limits.

2.1.3. Planned SAIDI and SAIFI

We expect to meet our limits for both planned SAIDI and SAIFI during RY24. When undertaking our work programmes we aim to ensure that we limit the necessary length and number of planned outages.

2.2. Reliability Improvement Initiatives

As discussed in our 2023 AMP and our Unplanned Interruptions Report for RY23, effectively managing reliability on our network continues to be challenging. In response to this and recognising the importance of a reliable and resilient service, Firstlight continues to develop and implement reliability improvement initiatives. We aim to achieve this while keeping cost increases as low as possible through implementing prudent and efficient solutions.

Quality meetings are held monthly and attended by all network staff, the top ten (worst) contributors to SAIDI and SAIFI are discussed in depth by network and engineering staff to determine cause and potential to mitigate future impacts.

2.2.1. Our Strategy to Address the Main Drivers of Interruptions

As discussed above, the majority of interruptions on our network can be linked to a range of factors/causes. Below we discuss our overall strategy to managing these before setting out some planned initiatives to be rolled out over the coming AMP period.

It should be noted that many of these strategies address multiple risks. We have included a number of these under a general category.

Table 2.1: Overview of reliability strategy

RISK AREA	HIGH-LEVEL STRATEGIES
General	– Establish a comprehensive **resilience strategy** to proactively mitigate the impacts of climate change and the risks posed by ageing equipment. – Ensure **design standards** achieve an appropriate level of resilience – Proactively invest in **fault location and sectionalising** to reduce downtime by rapidly pinpointing faults, allowing for prompt and targeted repair efforts. – Optimise **operational readiness** and incident response capabilities of field crews to manage incidents more effectively. – Limit outage impacts by strategically deploying **generators**
Adverse weather	– Increased preparedness through appropriate and proportional, **emergency management plans** and processes – Maintain a **dedicated communications** capability to address risk of hampered public communication networks during major incidents events
Adverse environment	– Subtransmission **asset 'hardening'** to mitigate the impact of slips and other adverse environmental conditions. – Assess flooding and geotechnical hazards and prepare **mitigation plans**
Equipment failure	– Embed a **risk-based approach** to prioritise the renewal and maintenance of equipment – Improved **condition monitoring** – Strengthen **capability and capacity of field crews** so they can safely and quickly resolve equipment failures. – Investigate options to **increase security** and redundancy of critical assets to ensure continuity of service in the event of failures.
Third-party interference / Wildlife	– Installation of **warning signs** to deter unauthorised access or accidental damage – **Engagement** with entities undertaking excavation works or working at height near our assets – Evaluate **asset relocation or undergrounding** in high-risk areas to reduce vehicle incidents – Review **security of zone substations** and other assets to prevent unauthorised access – Develop and implement strategies to mitigate the **impact of wildlife** on equipment e.g. installing wildlife guards and conducting habitat management around our assets
Vegetation	– Strengthen **engagement with tree owners** and local communities to collaboratively manage vegetation – Engage on and advocate for larger clearance zones (Tree Regulations) – Leverage **LiDAR** technology to identify vegetation-related risks

The above strategies build on those set out in our 2023 AMP and the findings in our Unplanned Interruptions Report for RY23. It reflects additional analysis and our reliability performance to date in RY24. We continue to refine the above strategies and have commissioned external expertise to review historical fault data and support our reliability strategies.

2.2.2. Recent and Planned Initiatives

Consistent with the strategies set out above, Firstlight is progressing a range of initiatives as part of a wider reliability improvement program. Over time, it is expected that these will lower the likelihood of interruption and improve our ability to respond and recover from incidents. Below we set out examples of recent, ongoing, and planned initiatives.

- **Integration with Clarus operations**: leveraging the resources of the wider Clarus group to improve operational response capability, including:
  - emergency response training
  - helicopter and field crew support during major incidents
  - expanded support functions (e.g. corporate functions and field coordination).
- **Capex investment**: our expenditure plans for the AMP period include investments aiming to improve overall reliability performance. This includes a focus on circuits where it is challenging to identify faults and restore service.
  - Accelerating our rollout of sectionalisers and motorised air-break switches to improve network segmentation and fault management
  - We plan to evaluate the benefits of location fault indication solutions
- **Increased focus on field operations**: we have introduced a dedicated Field Operations Manager role to support operational coordination, improve approaches to vegetation management and preventive maintenance.
- **Incident response**: in line with our increasing interruptions forecasts we have increased our reactive maintenance forecast to ensure we can respond adequately to incidents.
- **Design standards review**: we are assessing pre-2000 standards to ensure their suitability for current and future weather conditions (e.g. higher wind speeds). This is informed through collaboration with other EDBs.
- **Emergency planning**: increased focus on developing emergency response plans including coordination with other lifeline utilities and civil defence.
- **Targeted renewal programmes**: based on the condition of our oldest overhead spans that are regularly exposed to high winds.
- **Deployment of generators:** many of our feeders cannot be back-fed from alternative sources due to their radial and remote nature. To address this, we continue to install and refurbish generators at strategic locations. This has had significant SAIDI savings (see example below).

> **Use of generators to reduce SAIDI**
>
> Extreme weather led to significant land slips at Tauwhareparae destroying a major local road and damaging overhead assets. Restricted road access and a lack of back-feed capability would have led to an extended outage. To limit the impact on customers we deployed two portable generators while permanent repairs to our assets were undertaken. Over a number of weeks the generators saved approximately 1.8 million customer minutes (equivalent to 69 SAIDI).

- **Increased network security**: our conversion of the Gisborne to Tokomaru Bay line to a 50kV operating voltage has improved backfeed capability during incidents.
- **LIDAR surveys**: plans to adopt LIDAR technology (in line with Clarus Group strategy) for overhead line surveys, focusing on line clearances and vegetation.
- **Subtransmission resilience**: we continue to address the impact of flooding and slips on our subtransmission assets and are increasing their ability to withstand future events.

- **Worst performing feeders**: we plan to increase our focus on poorly performing feeders and to adopt specific improvement plans to ensure we deliver appropriate levels of service. These will be informed by:
  - identifying SAIDI and SAIFI risk factors by line segments
  - heatmaps to analyse sectionalising options
  - linking fault heatmaps to asset identifiers.
- **Wildlife deterrence**: more stringent standards for possum guards and other barriers. These will be proactively replaced during field inspections.
- **Vegetation management**: increasing our capability and expenditure to address the impact of vegetation. We are also progressing further initiatives including
  - Collaborations with forestry companies to achieve broader clearance corridors, especially for vulnerable feeders.
  - More proactive liaison with tree-owners

The above initiatives aim to improve network resilience and reliability. This is particularly important for remote locations where access and rapid response are often more challenging. Planned reliability-focussed investments (e.g. sectionalisation), increased preventive maintenance, and risk-based asset renewal will, over time, deliver a more resilient and reliable network that can withstand environmental challenges and mitigate the risks posed by ageing assets. Over time we are confident that they help ensure that we deliver more reliable services to the communities of Gisborne, Wairoa and the East Coast.

3. CHANGES TO EXPENDITURE PLANS

This chapter sets out differences between our updated 2024 AMP forecasts and equivalent plans included in our 2023 AMP. Consistent with Information Disclosure requirements we have focussed the discussion on "material"[4] changes.

Note the portfolios and fleets referred to below reflect our internal categorisation and may vary from those included in Schedules 11a and 11b.

3.1. Introduction

As part of our 'business-as-usual' internal planning and governance processes we have developed updated investment plans for RY24 and beyond. These plans reflect updated asset information and changes to our forecasting approaches that reflect our ongoing improvements to our asset management approaches.

3.2. Lifecycle Management Plans

Firstlight is progressively moving from primarily age-based forecasting approaches to forecasts that incorporate condition-based asset health scores. The principal asset lifecycle strategy to mitigate the failure risks posed by ageing or poor-condition assets on our network. This typically involves refurbishment of poor condition assets or replacement of H1 and H2 assets before end-of-life failure. Our approach has been guided by the DNO asset health methodology and is supported by new asset inspection standards and increased numbers of inspections.

When compared with our 2023 AMP forecasts, lifecycle management Capex has increased by approximately $37m over their respective periods.

3.2.1. Asset Replacement and Renewal

Asset fleet plans are being developed for major asset types to identify the issues, asset management strategies, and investment needs to maintain assets over their full lifecycle. A key consideration in these plans is the need to strengthen network resilience in response to the increasing impact of climate change.

Our asset replacement and renewal forecasts have been refined to account for a range of factors, including improved asset information and increased use of asset health modelling. The timing of planned projects has been reviewed, leading to modifications in the Capex profile.

We have also updated cost estimates where underlying costs have changed. In addition to reprioritising work, a re-categorisation review of the work has taken place, resulting in the realignment of certain works to more appropriate expenditure categories. This has predominantly led to a shift from RSE to ARR.

[4] Information Disclosure does not define the term "material" in this context. We have used a threshold consistent with the Commission's Section 53ZD information request.

Lifecycle Capex (ARR and RSE) has increased by approximately $25M over 10-years. Key drivers for this change include:

- Investment in the reinstatement of subtransmission structures has been increased (RY25-27 only) following damage during adverse weather events and resulting slips
- reflecting the outputs of improved modelling we have increased investment in overhead conductor Capex
- we have updated our zone substation renewal programme to account for updated condition assessments and change to underlying costs
- distribution switchgear programs have been refined to address type issues and address safety and environmental risks
- some projects and programs have been adjusted to reflect observed cost increases.

The table below provides further details on the main changes to our lifecycle management plans.

Table 3.1: Material changes to our lifecycle management plans

PORTFOLIO	DESCRIPTION
Poles	Continuation of the pole replacement programme with a stronger link between asset health and forecast expenditure. We have updated the unit rates for pole replacement. While there is an uplift in absolute Capex terms it represents a small percentage increase for this programme.
Steel Structures	This continues remediation work on critical subtransmission assets. It reflects full condition assessments completed post cyclone Gabrielle that require remediation to steel structures and their foundations to address the impact of land slips.
Conductors	Historically conductor renewal Capex had been primarily reactive. Recognising the risk associated with conductor failures we are shifting to a more proactive approach. This has been informed by an AHI-driven approach to replacement planning. Over time, this will help improve the resilience of our overhead network.
Cables	Our forecasting approach has been refined to reflect expected maximum practical lives (MPL). We continue our (relatively small) program of undergrounding in CBD area. These uplifts include increase responding to type issue where XLPE is cable is susceptible to water ingress. These proactive approaches have led to an increase from historically low levels of reactive renewal.
Zone Substations	Renewal Capex on zone substations has been relatively low due to a reactive approach for some asset classes. Reflecting the need to ensure assets are managed more proactively, our plans have been adjusted to address: – GIS and 11kV switchgear replacements now due in the DPP4 period – increased costs of power transformer refurbishment – overdue works on buildings and ancillary assets – safety and environmental risk associated with obsolete switchgear in our zone substations
Distribution Transformers	We have been experiencing an increasing number of failures in this asset class. As the AMP period progresses, we have forecast that expected renewal levels will increase based on asset ageing and associated condition deterioration.
Distribution Switchgear	Shifting towards a more proactive renewal approach that targets obsolete assets and type issues. – Replacement of obsolete/inoperable units – Safety and environmental risk associated with oil units. – Phasing out of SF_6 Units. As the period progresses, it is expected that reactive replacements will increase, as pole-mounted assets age and deteriorate.

3.3. Network Development Plans

Based on Firstlight's overarching asset management strategy, system growth Capex forecast reflects expenditure drivers that are aligned to two distinct phases over the AMP period. During the upcoming DPP4 period we will primarily concentrate on bolstering the security and resilience of the network. Subsequently, the following DPP period will shift the focus towards expanding the capacity and capability of the network to accommodate additional demand for electricity in the evolving energy landscape.

We currently have a number of existing constraints on the network that will need to be addressed in the earlier part of the AMP period. To address these, several growth projects are included in the upcoming AMP period. This is aimed at ensuring the network is well-equipped to alleviate existing constraints on the network and prepare for future growth.

When compared with our 2023 AMP forecasts, network development Capex has increased by approximately $8.3m over their respective periods.

The table below provides further details on the main changes to our system growth plans.

Table 3.2: Material changes to our system growth plan (constant RY24 $)

PROJECT	CHANGE	DESCRIPTION
Wairoa Substation	Timing	Demand constraints and asset performance have prompted the rescheduling of this zone substation re-configuration
Capacitor banks	+$300k	Additional scope and updated cost estimates
Thermal upgrades	+$250k	Inflationary cost increases associated with project
Massey Substation	Cost and timing	Rescheduling upgrade to facilitate expected growth

3.3.1. Consumer Connections

Our 2023 AMP forecast was developed based on the customer connections policy utilised by the previous network owner (Eastland Network). This was based on a "causer pays" policy, wherein all expenses related to customer-initiated requirements leading to network asset or infrastructure upgrades, downgrades, removals, or relocations have been covered by customers.

Firstlight Network aims to bring its capital contribution policy in line with other EDBs that currently impose lower capital contribution requirements, where customers contribute less than 100% upfront. A recent review of our capital contributions policy has resulted in an increase in forecast Capex for customer connections. This will enhance transparency when reporting both customer connections and customer capital contributions.

3.4. Operating Expenditure

Firstlight has adopted a base-step-trend (BST) approach to forecast its Opex forecasts. For our 2024 AMP forecasts, we have used the latest available, confirmed actuals from RY23 as the base year, adjusted to 2024 dollars. This approach best reflects our prevailing operational environment, evolving business structure, and baseline activities.

Significant changes in expenditure, where they are known or anticipated, were incorporated as step changes. These encompassed network or operational changes, alterations to external drivers, and other material drivers expected to impact Opex. Additionally, a trend component was integrated to account for the anticipated variations in outputs throughout the forecast period, for example forecast increase in ICPs.

When compared with our 2023 AMP forecasts, total Opex has increased by approximately $19m over their respective periods.

Explanations of changes to forecast expenditure in the upcoming AMP period is provided below.

Table 3.3: Material changes to our Opex forecasts (10-year amounts, constant RY24 $)

PORTFOLIO	CHANGE	DESCRIPTION
SIE	approx. 350k per annum	This increase reflects additional expenditure in the base year and a forecast increase in unplanned outages in the coming years. Increased expenditure on fault response and reactive maintenance will help reduce outage lengths and reduce the future likelihood of SAIDI/SAIFI breaches Based on increased renewals expenditure we expect SIE spend to begin to reduce towards the end of the AMP period.
RCI	approx. 200k per annum	Increased spend in this category are generally captured through the following step changes: – Increase in number of inspections to improve asset condition information – Increased focus on condition monitoring – Increased costs associated with generator maintenance to ensure they can support overall resilience – Cyclical 110kV inspections on subtransmission assets. This level of expenditure will ensure that scheduled maintenance during the AMP period is fully executed, allowing the benefits of effective preventive programs to be realised.
Business Support	approx. $1m / annum	Following the change in ownership, we continue to transition integrate into a wider group of companies that includes other regulated network businesses. This provides additional assurance on asset management, operational responses, and regulatory assurance. Further drivers for increased expenditure (versus AMP 23) include expected increases in ICT Opex spend due to the ongoing move to SaaS.

APPENDICES

APPENDIX A. DISCLOSURE SCHEDULES

This appendix includes the following Information Disclosure schedules:

- Schedule 11a: report on forecast Capital Expenditure
- Schedule 11b: report on forecast Operational Expenditure
- Schedule 12a: report on asset condition
- Schedule 12b: report on forecast capacity
- Schedule 12c: report on forecast network demand
- Schedule 12d: report on forecast interruptions and duration
- Schedule 14a: commentary on differences between forecast Capex (schedule 11a) and Opex (schedule 11b) in nominal and constant prices

Schedule 11a: report on forecast Capital Expenditure

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**

SCHEDULE 11a: REPORT ON FORECAST CAPITAL EXPENDITURE

This schedule requires a breakdown of forecast expenditure on assets for the current disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. Also required is a forecast of the value of commissioned assets (i.e., the value of RAB additions)

EDBs must provide explanatory comment on the difference between constant price and nominal dollar forecasts of expenditure on assets in Schedule 14a (Mandatory Explanatory Notes). EDBs must express the information in this schedule (11a) as a specific value rather than ranges. Any supporting information about these values may be disclosed in Schedule 15 (Voluntary Explanatory Notes).

This information is not part of audited disclosure information.

sch ref		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
9	**11a(i): Expenditure on Assets Forecast**	**$000 (in nominal dollars)**										
10	Consumer connection	63	1,830	1,867	1,905	1,943	1,983	2,023	2,064	2,106	2,149	2,192
11	System growth	507	2,466	4,928	5,786	3,620	5,355	3,509	4,271	5,945	6,064	5,879
12	Asset replacement and renewal	12,245	15,426	18,156	16,426	14,514	14,570	16,970	17,134	17,196	18,354	19,438
13	Asset relocations	16	75	77	78	80	81	83	85	86	88	90
14	Reliability, safety and environment:											
15	Quality of supply	339	1,203	392	1,465	408	1,524	198	923	941	960	979
16	Legislative and regulatory	176	97	31	-	-	-	-	-	-	-	-
17	Other reliability, safety and environment	61	102	104	107	109	-	-	173	176	180	184
18	**Total reliability, safety and environment**	576	1,403	527	1,571	516	1,524	198	1,096	1,117	1,140	1,163
19	**Expenditure on network assets**	13,408	21,199	25,555	25,766	20,673	23,512	22,783	24,649	26,451	27,794	28,761
20	Expenditure on non-network assets	945	660	585	597	265	271	276	743	758	773	788
21	**Expenditure on assets**	14,353	21,859	26,140	26,363	20,939	23,783	23,059	25,392	27,208	28,567	29,550
22												
23	*plus* Cost of financing	144	219	261	264	209	238	231	254	272	286	295
24	*less* Value of capital contributions		1,075	1,097	1,119	1,141	1,164	1,187	1,211	1,235	1,260	1,285
25	*plus* Value of vested assets	500										
26												
27	**Capital expenditure forecast**	14,996	21,002	25,304	25,508	20,007	22,857	22,102	24,435	26,246	27,593	28,560
28												
29	Assets commissioned	15,187	21,040	25,034	25,255	19,990	22,905	21,994	24,624	26,096	27,255	29,075

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
30												
31												
32		**$000 (in constant prices)**										
33	Consumer connection	63	1,787	1,787	1,788	1,788	1,789	1,789	1,790	1,790	1,791	1,791
34	System growth	507	2,408	4,718	5,431	3,331	4,831	3,104	3,704	5,054	5,054	4,804
35	Asset replacement and renewal	12,245	15,064	17,383	15,418	13,357	13,145	15,010	14,858	14,620	15,298	15,884
36	Asset relocations	16	73	73	73	73	73	73	73	73	73	73
37	Reliability, safety and environment:											
38	Quality of supply	339	1,175	375	1,375	375	1,375	175	800	800	800	800
39	Legislative and regulatory	176	95	30	-	-	-	-	-	-	-	-
40	Other reliability, safety and environment	61	100	100	100	100	-	-	150	150	150	150
41	**Total reliability, safety and environment**	576	1,370	505	1,475	475	1,375	175	950	950	950	950
42	**Expenditure on network assets**	13,408	20,702	24,467	24,185	19,024	21,213	20,151	21,375	22,487	23,166	23,502
43	Expenditure on non-network assets	945	644	560	560	244	244	244	644	644	644	644
44	**Expenditure on assets**	14,353	21,347	25,027	24,745	19,269	21,457	20,395	22,019	23,131	23,810	24,146
45												
46	**Subcomponents of expenditure on assets (where known)**											
	**EDBs' must disclose both a public version of this Schedule (excluding cybersecurity cost data) and a confidential version of this Schedule (including cybersecurity costs)*											
47	Energy efficiency and demand side management, reduction of energy losses											
48	Overhead to underground conversion											
49	Research and development											
50	Cybersecurity (Commission only)											
51												

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
Difference between nominal and constant price forecasts	$000										
Consumer connection	-	43	80	117	155	194	234	274	316	358	401
System growth	-	58	210	355	289	524	405	567	891	1,010	1,075
Asset replacement and renewal	-	362	773	1,008	1,158	1,425	1,960	2,276	2,577	3,056	3,554
Asset relocations	-	2	3	5	6	8	10	11	13	15	16
Reliability, safety and environment:											
Quality of supply	-	28	17	90	33	149	23	123	141	160	179
Legislative and regulatory	-	2	1	-	-	-	-	-	-	-	-
Other reliability, safety and environment	-	2	4	7	9	-	-	23	26	30	34
Total reliability, safety and environment	-	33	22	96	41	149	23	146	167	190	213
Expenditure on network assets	-	497	1,088	1,581	1,649	2,300	2,631	3,274	3,963	4,628	5,259
Expenditure on non-network assets	(0)	15	25	36	21	26	32	99	114	129	144
Expenditure on assets	(0)	512	1,113	1,617	1,670	2,326	2,663	3,373	4,077	4,757	5,403

Commentary on options and considerations made in the assessment of forecast expenditure

EDBs may provide explanatory comment on the options they have considered (including scenarios used) in assessing forecast expenditure on assets for the current disclosure year and a 10 year planning period in Schedule 15

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
11a(ii): Consumer Connection						
*Consumer types defined by EDB**	$000 (in constant prices)					
Commercial		974	974	975	975	975
Residential	63	813	813	813	813	814
*include additional rows if needed						
Consumer connection expenditure	63	1,787	1,787	1,788	1,788	1,789
less Capital contributions funding consumer connection		1,050	1,050	1,050	1,050	1,050
Consumer connection less capital contributions	63	737	737	738	738	739
11a(iii): System Growth						
Subtransmission	307	640	900	3,227	2,727	4,227
Zone substations	-	1,164	3,214	1,600	-	-
Distribution and LV lines	105	154	154	154	154	154
Distribution and LV cables	45	240	240	240	240	240
Distribution substations and transformers	50	210	210	210	210	210
Distribution switchgear	-	-	-	-	-	-
Other network assets	-	-	-	-	-	-
System growth expenditure	507	2,408	4,718	5,431	3,331	4,831
less Capital contributions funding system growth						
System growth less capital contributions	507	2,408	4,718	5,431	3,331	4,831

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
11a(iv): Asset Replacement and Renewal	$000 (in constant prices)					
Subtransmission	1,837	2,825	2,649	2,313	591	1,195
Zone substations	668	956	1,899	1,785	1,147	1,291
Distribution and LV lines	6,984	7,523	7,220	7,220	7,220	7,220
Distribution and LV cables	724	912	912	912	912	1,097
Distribution substations and transformers	764	860	916	962	996	1,136
Distribution switchgear	610	683	768	768	853	853
Other network assets	658	1,306	3,019	1,458	1,638	352
Asset replacement and renewal expenditure	12,245	15,064	17,383	15,418	13,357	13,145
less Capital contributions funding asset replacement and renewal						
Asset replacement and renewal less capital contributions	12,245	15,064	17,383	15,418	13,357	13,145

11a(v): Asset Relocations

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
*Project or programme**	$000 (in constant prices)					
Asset Relocations Gross	16	73	73	73	73	73
*include additional rows if needed						
All other project or programmes - asset relocations						
Asset relocations expenditure	16	73	73	73	73	73
less Capital contributions funding asset relocations						
Asset relocations less capital contributions	16	73	73	73	73	73

11a(vi): Quality of Supply

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
*Project or programme**	$000 (in constant prices)					
New Generators		1,000	-	1,000	-	1,000
Rural Automation/reclosers		175	175	175	175	175
LV Monitoring		-	200	200	200	200
		-	-	-	-	-
		-	-	-	-	-
*include additional rows if needed						
All other projects or programmes - quality of supply	339					
Quality of supply expenditure	339	1,175	375	1,375	375	1,375
less Capital contributions funding quality of supply						
Quality of supply less capital contributions	339	1,175	375	1,375	375	1,375

11a(vii): Legislative and Regulatory

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
*Project or programme**	$000 (in constant prices)					
L & R - Meter boxes (asbestos)		30	30	-	-	-
L & R - AUFLS / Relays		65	-			
*include additional rows if needed						
All other projects or programmes - legislative and regulatory	176					
Legislative and regulatory expenditure	176	95	30	-	-	-
less Capital contributions funding legislative and regulatory						
Legislative and regulatory less capital contributions	176	95	30	-	-	-

11a(viii): Other Reliability, Safety and Environment

	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
*Project or programme**	$000 (in constant prices)					
Other - Galv Meters (safety)		100	100	100	100	
*include additional rows if needed						
All other projects or programmes - other reliability, safety and environment	61					
Other reliability, safety and environment expenditure	61	100	100	100	100	-
less Capital contributions funding other reliability, safety and environment						
Other reliability, safety and environment less capital contributions	61	100	100	100	100	-

		Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
169							
170							
171	**11a(ix): Non-Network Assets**						
172	**Routine expenditure**						
173	*Project or programme**	**$000 (in constant prices)**					
174	Buildings		422	22	22	22	22
175	Vehicles		143	143	143	143	143
176	ICT		48	364	364	48	48
177			-	-	-	-	-
178							
179	*include additional rows if needed						
180	All other projects or programmes - routine expenditure	945	31	31	31	31	31
181	**Routine expenditure**	945	644	560	560	244	244
182	**Atypical expenditure**						
183	*Project or programme**						
184	[Description of material project or programme]						
185	[Description of material project or programme]						
186	[Description of material project or programme]						
187	[Description of material project or programme]						
188	[Description of material project or programme]						
189	*include additional rows if needed						
190	All other projects or programmes - atypical expenditure						
191	**Atypical expenditure**	-	-	-	-	-	-
192							
193	**Expenditure on non-network assets**	945	644	560	560	244	244
194							

Schedule 11b: report on forecast Operational Expenditure

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**

SCHEDULE 11b: REPORT ON FORECAST OPERATIONAL EXPENDITURE

This schedule requires a breakdown of forecast operational expenditure for the disclosure year and a 10 year planning period. The forecasts should be consistent with the supporting information set out in the AMP. The forecast is to be expressed in both constant price and nominal dollar terms. EDBs must provide explanatory comment on the difference between constant price and nominal dollar operational expenditure forecasts in Schedule 14a (Mandatory Explanatory Notes). EDBs must express the information in this schedule (11b) as a specific value rather than ranges. If EDBs wish to provide any supporting information about these values, this may be disclosed in Schedule 15 (Voluntary Explanatory Notes).
This information is not part of audited disclosure information.

sch ref		*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*	*CY+6*	*CY+7*	*CY+8*	*CY+9*	*CY+10*
9	**Operational Expenditure Forecast**	**$000 (in nominal dollars)**										
10	Service interruptions and emergencies	2,753	3,338	3,924	4,031	4,112	4,194	4,246	4,299	4,336	4,374	4,396
11	Vegetation management	1,758	1,812	1,863	1,914	1,952	1,992	2,031	2,072	2,113	2,156	2,199
12	Routine and corrective maintenance and inspection	2,371	3,474	3,414	3,670	3,577	3,819	3,722	3,973	3,872	4,133	4,028
13	Asset replacement and renewal	604	674	746	820	837	910	979	1,051	1,058	1,064	1,064
14	**Network Opex**	7,486	9,298	9,947	10,436	10,478	10,914	10,978	11,394	11,379	11,727	11,687
15	System operations and network support	2,385	3,293	3,478	3,669	3,844	3,980	4,100	4,204	4,317	4,415	4,499
16	Business support	4,929	5,246	5,572	5,912	6,090	6,274	6,400	6,412	6,364	6,314	6,204
17	**Non-network opex**	7,313	8,540	9,050	9,581	9,935	10,255	10,500	10,615	10,681	10,729	10,702
18	**Operational expenditure**	14,799	17,837	18,997	20,017	20,413	21,169	21,478	22,010	22,059	22,456	22,390

		Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*	*CY+6*	*CY+7*	*CY+8*	*CY+9*	*CY+10*
21		**$000 (in constant prices)**										
22	Service interruptions and emergencies	2,753	3,239	3,702	3,702	3,702	3,702	3,675	3,647	3,607	3,567	3,515
23	Vegetation management	1,758	1,758	1,758	1,758	1,758	1,758	1,758	1,758	1,758	1,758	1,758
24	Routine and corrective maintenance and inspection	2,371	3,371	3,221	3,371	3,221	3,371	3,221	3,371	3,221	3,371	3,221
25	Asset replacement and renewal	604	654	704	754	754	804	848	892	880	868	851
26	**Network Opex**	7,486	9,022	9,385	9,585	9,435	9,635	9,501	9,668	9,466	9,564	9,345
27	System operations and network support	2,385	3,196	3,281	3,370	3,461	3,514	3,548	3,567	3,591	3,600	3,597
28	Business support	4,929	5,090	5,257	5,430	5,484	5,539	5,539	5,440	5,294	5,150	4,960
29	**Non-network opex**	7,313	8,286	8,538	8,799	8,945	9,052	9,087	9,007	8,885	8,750	8,557
30	**Operational expenditure**	14,799	17,308	17,923	18,384	18,380	18,687	18,588	18,675	18,350	18,314	17,902

31	**Subcomponents of operational expenditure (where known)**											
	**EDBs' must disclose both a public version of this Schedule (excluding cybersecurity cost data) and a confidential version of this Schedule (including cybersecurity costs)*											
32	Energy efficiency and demand side management, reduction of											
33	energy losses											
34	Direct billing*											
35	Research and Development											
36	Insurance											
37	Cybersecurity (Commission only)											
38	** Direct billing expenditure by suppliers that direct bill the majority of their consumers*											

		Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*	*CY+6*	*CY+7*	*CY+8*	*CY+9*	*CY+10*
42	**Difference between nominal and real forecasts**	**$000**										
43	Service interruptions and emergencies	-	99	222	329	410	492	571	652	729	807	881
44	Vegetation management	-	54	105	156	194	234	273	314	355	398	441
45	Routine and corrective maintenance and inspection	-	103	193	299	356	448	501	602	651	762	807
46	Asset replacement and renewal	-	20	42	66	83	106	131	159	178	196	213
47	**Network Opex**	-	276	562	851	1,043	1,279	1,477	1,726	1,913	2,163	2,342
48	System operations and network support	-	97	197	299	383	466	552	637	726	815	902
49	Business support	-	156	315	482	606	735	861	972	1,070	1,164	1,244
50	**Non-network opex**	-	254	512	782	990	1,203	1,413	1,608	1,796	1,979	2,145
51	**Operational expenditure**	-	530	1,074	1,633	2,033	2,482	2,890	3,334	3,709	4,142	4,487

53	**Commentary on options and considerations made in the assessment of forecast expenditure**	
54	*EDBs may provide explanatory comment on the options they have considered (including scenarios used) in assessing forecast operational expenditure for the current disclosure year and a 10 year planning period in Schedule 15.*	

Schedule 12a: report on asset condition

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**

SCHEDULE 12a: REPORT ON ASSET CONDITION

This schedule requires a breakdown of asset condition by asset class as at the start of the forecast year. The data accuracy assessment relates to the percentage values disclosed in the asset condition columns. Also required is a forecast of the percentage of units to be replaced in the next 5 years. All information should be consistent with the information provided in the AMP and the expenditure on assets forecast in Schedule 11a. All units relating to cable and line assets, that are expressed in km, refer to circuit lengths.

sch ref					Asset condition at start of planning period (percentage of units by grade)							
	Voltage	Asset category	Asset class	Units	H1	H2	H3	H4	H5	Grade unknown	Data accuracy (1–4)	% of asset forecast to be replaced in next 5 years
10	All	Overhead Line	Concrete poles / steel structure	No.	-	-	-	0.1%	99.9%	-	3	0%
11	All	Overhead Line	Wood poles	No.	12.2%	5.7%	1.4%	5.7%	75.0%	-	2	15%
12	All	Overhead Line	Other pole types	No.						-	N/A	
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	-	-	1.8%	2.7%	95.4%	-	1	0%
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	-	-	-	0.2%	99.8%	-	3	0%
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	-	-	-	3.9%	96.1%		3	0%
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km							N/A	
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km							N/A	
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km							N/A	
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km							N/A	
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km							N/A	
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km							N/A	
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km							N/A	
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	-	-	-	-	100.0%		3	0%
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	-	10.5%	52.6%	31.6%	5.3%		3	0%
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	-	-	81.8%	18.2%	-		3	0%
26	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.							N/A	
27	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	-	-	-	-	100.0%		3	0%
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.							N/A	
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	-	-	-	-	100.0%		3	0%
30	HV	Zone substation switchgear	33kV RMU	No.							N/A	
31	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.							N/A	
32	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	-	-	2.1%	6.4%	91.5%		3	4%
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	23.1%	-	-	-	76.9%		3	20%
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	7.7%	7.7%	7.7%	-	76.9%		2	9%

					Asset condition at start of planning period (percentage of units by grade)							
	Voltage	Asset category	Asset class	Units	H1	H2	H3	H4	H5	Grade unknown	Data accuracy (1–4)	% of asset forecast to be replaced in next 5 years
39	HV	Zone Substation Transformer	Zone Substation Transformers	No.	2.8%	-	-	13.9%	83.3%		3	3.0%
40	HV	Distribution Line	Distribution OH Open Wire Conductor	km	2.2%	0.4%	0.5%	6.1%	90.8%	-	1	2.5%
41	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km							N/A	
42	HV	Distribution Line	SWER conductor	km	-	-	-	-	100.0%		1	0%
43	HV	Distribution Cable	Distribution UG XLPE or PVC	km	4.2%	-	-	8.3%	87.6%		2	5.0%
44	HV	Distribution Cable	Distribution UG PILC	km	-	-	2.2%	56.2%	41.6%		2	0.5%
45	HV	Distribution Cable	Distribution Submarine Cable	km							N/A	
46	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and	No.	4.5%	2.3%	4.5%	4.5%	84.1%		2	7.0%
47	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	-	6.7%	-	80.0%	13.3%		2	0.0%
48	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole	No.	4.4%	2.7%	1.7%	10.5%	80.7%		2	10.0%
49	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except	No.	1.3%	-	2.6%	7.7%	88.5%		3	7.6%
50	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	2.9%	0.7%	-	17.1%	79.3%		3	3.5%
51	HV	Distribution Transformer	Pole Mounted Transformer	No.	2.6%	3.8%	1.7%	5.5%	86.4%	-	2	3.9%
52	HV	Distribution Transformer	Ground Mounted Transformer	No.	0.7%	0.5%	1.7%	5.3%	91.9%	-	3	4.8%
53	HV	Distribution Transformer	Voltage regulators	No.	-	-	27.3%	36.4%	18.2%	18.2%	3	20.0%
54	HV	Distribution Substations	Ground Mounted Substation Housing	No.							N/A	
55	LV	LV Line	LV OH Conductor	km	1.4%	0.3%	0.2%	8.7%	89.4%	-	1	1.5%
56	LV	LV Cable	LV UG Cable	km	-	1.4%	26.5%	44.1%	27.9%	-	2	1.8%
57	LV	LV Streetlighting	LV OH/UG Streetlight circuit	km	-	5.0%	-	15.2%	79.8%			0.0%
58	LV	Connections	OH/UG consumer service connections	No.	3.2%	39.5%	33.7%	14.4%	9.2%	-	1	1.0%
59	All	Protection	Protection relays (electromechanical, solid state an	No.	3.5%	21.4%	19.6%	22.5%	33.0%	-	3	22.0%
60	All	SCADA and communications	SCADA and communications equipment operating a	Lot	10.3%	15.1%	22.1%	37.4%	15.1%	-	2	15.0%
61	All	Capacitor Banks	Capacitors including controls	No.	-	100.0%	-	-	-		3	0%
62	All	Load Control	Centralised plant	Lot	-	100.0%	-	-	-		3	0%
63	All	Load Control	Relays	No.	4.0%	12.7%	79.4%	1.7%	2.2%		1	5.0%
64	All	Civils	Cable Tunnels	km							N/A	

Schedule 12b: report on forecast capacity

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**

SCHEDULE 12b: REPORT ON FORECAST CAPACITY

This schedule requires a breakdown of current and forecast capacity and utilisation for each zone substation and current distribution transformer capacity. The data provided should be consistent with the information provided in the AMP.
Information provided in this table should relate to the operation of the network in its normal steady state configuration.

sch ref

12b(i): System Growth - Zone Substations

Existing Zone Substations	Current Peak Load (MVA)	Installed Firm Capacity (MVA)	Security of Supply Classification (type)	Transfer Capacity (MVA)	Utilisation of Installed Firm Capacity %	Installed Firm Capacity +5 years (MVA)	Utilisation of Installed Firm Capacity + 5yrs %	Installed Firm Capacity Constraint +5 years (cause)	Explanation
TeAraroa	1	-	N-1 Switched	1	-	-	-	Transformer	Constraint supported by Generation
Ruatoria	2	-	N-1 Switched	2	-	-	-	Transformer	Constraint supported by Generation
Tokomaru	1	-	N-1 Switched	1	-	-	-	Transformer	Constraint Suported by adjacent Substations
Tolaga	1	-	N-1 Switched	2	-	-	-	Transformer	Constraint supported by Generation
Kaiti	10	-	N-1 Switched	8	-	-	-	Transformer	Constraint Suported by adjacent Substations
Port	8	-	N-1 Switched	8	-	-	-	Transformer	Constraint Suported by adjacent Substations
Gisborne	57	60	N-1	60	95%	60	99%	Transformer	Constraint supported by Generation
Carnarvon	16	13	N-1	24	126%	13	129%	Transformer	Current Peak caused when load transferred to site during contingency
Parkinson	8	13	N-1	24	67%	13	69%	Transformer	Constraint Suported by adjacent Substations
Makaraka	7	-	N-1 Switched	7	-	-	-	Transformer	Constraint Suported by adjacent Substations
Patutahi	4	-	N-1 Switched	5	-	-	-	Transformer	Constraint Suported by adjacent Substations
Pehiri	0	-	N-1 Switched	1	-	-	-	Transformer	Constraint Suported by adjacent Substations
Ngatapa	0	-	N-1 Switched	2	-	-	-	Transformer	Constraint Suported by adjacent Substations
Puha	2	-	N-1 Switched	2	-	-	-	Transformer	Constraint supported by Generation
JNL	2	-	N-1 Switched	5	-	-	-	Transformer	Constraint Suported by adjacent Substations
Matawhero	4	13	N-1	18	35%	13	38%	No constraint within +5 years	
Tuai	1	5	N	-	15%	5	-	Transformer	Portable Generation Used for extended repair time
Kiwi	5	7	N	-	70%	7	-	Transformer	Generation Infeed
Wairoa	10	10	N-1	13	100%	10	101%	Transformer	Constraint supported by Generation
Blacks pad	2	-	N-1 Switched	2		-	-	Transformer	Constraint supported by Generation
Tahaenui	1	-	N-1 Switched	2		-	-	Transformer	Constraint Suported by adjacent Substations
Waihi	5	7	N	-	70%	7	-	Transformer	Generation Infeed

[1] *Extend forecast capacity table as necessary to disclose all capacity by each zone substation*

Schedule 12c: report on forecast network demand

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**

SCHEDULE 12c: REPORT ON FORECAST NETWORK DEMAND

This schedule requires a forecast of new connections (by consumer type), peak demand and energy volumes for the disclosure year and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumptions used in developing the expenditure forecasts in Schedule 11a and Schedule 11b and the capacity and utilisation forecasts in Schedule 12b.

sch ref

12c(i): Consumer Connections

Number of ICPs connected during year by consumer type

Number of connections

*Consumer types defined by EDB**	*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
Domestic/Residential	20,396	20,409	20,470	20,531	20,593	20,655
Small Commercial and other	5,349	5,350	5,361	5,371	5,382	5,393
Medium Commercial	145	151	154	157	160	163
Large Commercial	24	23	24	24	24	24
Industrial	4	4	4	4	4	4
Connections total	25,917	25,936	26,012	26,087	26,162	26,238

**include additional rows if needed*

Distributed generation

	Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
Number of connections made in year	96	101	106	111	117	123
Capacity of distributed generation installed in year (MVA)	0	1	1	1	1	1

12c(ii) System Demand

		Current Year CY	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
Maximum coincident system demand (MW)							
	GXP demand	64	61	62	62	63	64
plus	Distributed generation output at HV and above	2	6	6	6	6	6
	Maximum coincident system demand	67	67	68	69	69	70
less	Net transfers to (from) other EDBs at HV and above						
	Demand on system for supply to consumers' connection points	67	67	68	69	69	70
Electricity volumes carried (GWh)							
	Electricity supplied from GXPs	290	283	286	289	293	297
less	Electricity exports to GXPs	-	-	-	-	-	-
plus	Electricity supplied from distributed generation	28	34	36	37	38	39
less	Net electricity supplied to (from) other EDBs	-	-	-	-	-	-
	Electricity entering system for supply to ICPs	318	317	322	326	330	336
less	Total energy delivered to ICPs	291	289	291	295	298	302
	Losses	27	29	30	31	32	34
	Load factor	55%	54%	54%	54%	55%	55%
	Loss ratio	8.5%	9.1%	9.4%	9.5%	9.8%	10.0%

Schedule 12d: report on forecast interruptions and duration

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**
Network / Sub-network Name	**Gisborne and Wairoa**

SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION

This schedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumed impact of planned and unplanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.

sch ref		*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
10	**SAIDI**						
11	Class B (planned interruptions on the network)	101.1	101.1	101.1	101.1	101.1	101.1
12	Class C (unplanned interruptions on the network)	215.0	215.0	215.0	215.0	215.0	215.0
13	**SAIFI**						
14	Class B (planned interruptions on the network)	0.67	0.67	0.67	0.67	0.67	0.67
15	Class C (unplanned interruptions on the network)	3.00	3.00	3.00	3.00	3.00	3.00

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**
Network / Sub-network Name	**Gisborne**

SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION

This schedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumed impact of planned and unplanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.

sch ref		*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
10	**SAIDI**						
11	Class B (planned interruptions on the network)	75.8	75.8	75.8	75.8	75.8	75.8
12	Class C (unplanned interruptions on the network)	161.3	161.3	161.3	161.3	161.3	161.3
13	**SAIFI**						
14	Class B (planned interruptions on the network)	0.50	0.50	0.50	0.50	0.50	0.50
15	Class C (unplanned interruptions on the network)	2.25	2.25	2.25	2.25	2.25	2.25

Company Name	**Firstlight Network**
AMP Planning Period	**1 April 2024 – 31 March 2034**
Network / Sub-network Name	**Wairoa**

SCHEDULE 12d: REPORT FORECAST INTERRUPTIONS AND DURATION

This schedule requires a forecast of SAIFI and SAIDI for disclosure and a 5 year planning period. The forecasts should be consistent with the supporting information set out in the AMP as well as the assumed impact of planned and unplanned SAIFI and SAIDI on the expenditures forecast provided in Schedule 11a and Schedule 11b.

sch ref		*Current Year CY*	*CY+1*	*CY+2*	*CY+3*	*CY+4*	*CY+5*
10	**SAIDI**						
11	Class B (planned interruptions on the network)	25.3	25.3	25.3	25.3	25.3	25.3
12	Class C (unplanned interruptions on the network)	53.8	53.8	53.8	53.8	53.8	53.8
13	**SAIFI**						
14	Class B (planned interruptions on the network)	0.17	0.17	0.17	0.17	0.17	0.17
15	Class C (unplanned interruptions on the network)	0.75	0.75	0.75	0.75	0.75	0.75

Schedule 14a: Mandatory Explanatory Notes on Forecast Information

(In this Schedule, clause references are to the Electricity Distribution Information Disclosure Determination 2012 – as amended and consolidated 3 April 2018.)

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 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

The difference between constant and nominal prices is based on Statistics New Zealand forecast through to RY26, after which it is based on an escalation of 2%.

Commentary on 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

Our approach for operational expenditure is equivalent to the approach for capital expenditure, described above.

APPENDIX B. DISCLOSURE REQUIREMENTS

This compliance matrix provides a look-up reference for each AMP-related Information Disclosure requirement.

Table B.1: Disclosure requirements checklist

REGULATORY REQUIREMENTS		AMP REFERENCE
2.6	**ASSET MANAGEMENT PLANS AND FORECAST INFORMATION**	
2.6.3	Subject to clause 2.6.4, an EDB may elect to complete and publicly disclose an AMP update, as described under clause 2.6.5, before the start of a disclosure year, instead of an AMP, as described under clause 2.6.1(1), unless the start of that disclosure year is- (1) one year after the start of the DPP regulatory period; or (2) two years before the start of the next DPP regulatory period.	Firstlight's most recent, previous disclosure was its 2023 AMP.
2.6.4	An EDB must not complete and publicly disclose an AMP update instead of an AMP if it has not previously publicly disclosed an AMP under clause 2.6.1.	Firstlight's most recent, previous disclosure was its 2023 AMP.
2.6.5	For the purpose of clause 2.6.3, the AMP update must— (1) Relate to the electricity distribution services supplied by the EDB; (2) Identify any material changes to the network development plans disclosed in the last AMP under clause 11 and clause 17.5-17.7 of Attachment A or in the last AMP update disclosed under this clause; (3) 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 or in the last AMP update disclosed under this section; (4) 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; (5) Identify any changes to the asset management practices of the EDB that would affect a Schedule 13 Report on Asset Management Maturity disclosure; and (6) Contain the information set out in the schedules described in clause 2.6.6.	(1) Confirmed in Chapter 1 (2) include in Chapter 3 (3) include in Chapter 3 (4) include in Chapter 3 (5) Changes made since publishing our 2023 AMP would not materially impact our AMMAT assessment. We will undertake an updated assessment as we developed our 2025 AMP. (6) See 2.6.6 below

REGULATORY REQUIREMENTS		AMP REFERENCE
2.6.6	Each EDB— (1) must, except as provided in subclause 2.6.6(2), before the start of each disclosure year, complete and publicly disclose each of the following reports by inserting all information relating to the electricity distribution services supplied by the EDB for the disclosure years provided for in the following reports— (a) the Report on Forecast Capital Expenditure in Schedule 11a; (b) the Report on Forecast Operational Expenditure in Schedule 11b; (c) the Report on Asset Condition in Schedule 12a; (d) the Report on Forecast Capacity in Schedule 12b; (e) the Report on Forecast Network Demand in Schedule 12c; (f) the Report on Forecast Interruptions and Duration in Schedule 12d; (2) for the purposes of the Report on Forecast Capital Expenditure set out in Schedule 11a required under clause 2.6.6(1)(a), and the Report on Forecast Operational Expenditure set out in Schedule 11b required under clause 2.6.6(1)(b),- (a) is not required to publicly disclose information on cybersecurity expenditure, but must provide that information to the Commission; and (b) in respect of disclosures before the start of disclosure year 2024, is not required to- (i) complete and publicly disclose the information on cybersecurity expenditure in these reports; or (ii) provide the information required on cybersecurity expenditure to the Commission); and (3) must, if the EDB has sub-networks, complete and publicly disclose the Report on Forecast Interruptions and Duration set out in Schedule 12d by inserting all information relating to the electricity distribution services supplied by the EDB in relation to each sub-network for the disclosure years provided for in the report.	(1) This information is included in Appendix A. (2) Noted (3) This information is included in Appendix A.
2.7	**EXPLANATORY NOTES TO DISCLOSED INFORMATION**	
2.7.2	Before the start of each disclosure year, every EDB must complete and publicly disclose the Mandatory Explanatory Notes on Forecast Information in Schedule 14a by inserting all relevant information relating to information disclosed in accordance with clause 2.6.6.	This information is included in Appendix A.

REGULATORY REQUIREMENTS		AMP REFERENCE
2.9	**CERTIFICATES**	
2.9.1	Where an EDB is required to publicly disclose any information under clauses 2.4.1, 2.6.1, 2.6.3, 2.6.6 and 2.7.2, the EDB must at that time publicly disclose a certificate in the form set out in Schedule 17 in respect of that information, duly signed by 2 directors of the EDB.	A copy of the certificate is included in Appendix C.

APPENDIX C. DIRECTOR'S CERTIFICATE

We, Mark Ratcliffe and Jason McDonald, being directors of Firstlight Network Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

a) The following attached information of Firstlight Network Limited prepared for the purposes of clauses 2.4.1, 2.6.1, 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 measured on a basis consistent with regulatory requirements or recognised industry standards.

c) The forecasts in Schedules 11a, 11b, 12a, 12b, 12c and 12d are based on objective and reasonable assumptions which both align with Firstlight Network Limited's corporate vision and strategy and are documented in retained records.

Mark Ratcliffe	
Director Name	Signature
Jason McDonald	
Director Name	Signature

15 March 2024