



# Asset Management Plan Update

1 April 2024 to 31 March 2034

Submitted in accordance with Information Disclosure 2012

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# 1. Introduction

## 1.1. Purpose of the AMP Update

The purpose of this Asset Management Plan (AMP) Update is to reflect any material changes in Marlborough Lines Limited's (MLL's) asset management for the planning period from that outlined in the 2023 AMP<sup>1</sup>. Recent full AMPs were disclosed on 31 March 2020, 2021, and 2023. This AMP Update covers the period of 1 April 2024 to 31 March 2034. MLL last provided an AMP update on 31 March 2022.

For the purposes of this AMP Update, the interpretation of material change<sup>2</sup> is any significant deviation from the full AMP published 31 March 2023 (2023 AMP). Rescheduling projects, re-categorisation of expenditure types, minor adjustments to forecast amounts and values for example, are not deemed by MLL to be material changes.

MLL's AMPs are disclosed in accordance with regulatory requirements, but more importantly, they underpin MLL's strategy for managing its assets to meet consumer demands.

## 1.2. Information disclosure requirements

Section 2.6 of the Commerce Commission's Information Disclosure Determination 2012 (ID 2012) requires that Electricity Distribution Businesses (EDBs) disclose a full Asset Management Plan (AMP) one year after the start of the Default Price Path (DPP) and two years before the start of the next DPP period. The next DPP period starts 1 April 2025. In the other years EDBs may elect to complete and publicly disclose an AMP update which presents less information than a full AMP, to reduce compliance costs.

MLL produced a full AMP for 31 March 2023; this allows for the disclosure of an AMP Update for 31 March 2024, based on the aforementioned provision. As such, we have elected to prepare an AMP Update. We consider this approach appropriate considering the lack of material changes from the 2023 AMP.

Clause 2.6.3 in ID 2012 requires MLL to complete and publicly disclose an AMP Update before 1 April 2024. Clause 2.6.5 states that the AMP Update must:

- Relate to the electricity distribution services supplied by the EDB;
- Identify any material changes to the network development plans disclosed in the last AMP;
- Identify any material changes to the lifecycle asset management (maintenance and renewal) plans disclosed in the last AMP;
- 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

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<sup>1</sup> MLL's Asset Management Plan 1 April 2023 to 31 March 2033, available from <https://www.marlboroughlines.co.nz/About-us/Disclosures/Asset-Management.aspx>

<sup>2</sup> A material project and programme by definition "means projects or programmes with actual forecast total expenditure greater than the materiality threshold that is developed by the EDB" (Information Disclosure, 2012).

- Identify any changes to the asset management practices of the EDB that would affect a Schedule 13 Report on Asset Management Maturity disclosure.

In addition, clause 2.6.6 requires MLL to publicly disclose:

- 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; and
- f) the Report on Forecast Interruptions and Duration in Schedule 12d.

A number of additional information disclosures have been required following the publishing of the 2023 AMP. These are listed and addressed in Section 5.

### 1.3. Structure

This AMP Update has been prepared in accordance with Section 2.6 of ID 2012. This AMP Update is much more concise than the 2023 AMP. Where further detail is sought, the reader is encouraged to view the 2023 AMP.

This AMP Update reports on the following:

- Section 2 - A commentary on developments in MLL's asset management approach that highlights future challenges, in particular, due to technology and de-carbonisation developments.
- Section 3 - Material changes from the 2023 AMP, including:
  - Network development plans;
  - Lifecycle asset management; and
  - Asset management practices.

Where applicable, Section 3 also provides the reasons for any material changes presented in the Report on Forecast Capital Expenditure (Schedule 11a) and Forecast Operational Expenditure (Schedule 11b) from the 2023 AMP.

- Section 4 - An overview of any changes between the schedules accompanying this AMP Update to those disclosed with the 2023 AMP. The schedules include:
  - Schedule 11a – Forecast Capital Expenditure;
  - Schedule 11b – Forecast Operational Expenditure;
  - Schedule 12a – Asset Condition;
  - Schedule 12b – Forecast Capacity;
  - Schedule 12c – Forecast Network Demand; and
  - Schedule 12d – Forecast Interruptions and Duration.

The completed schedules are appended to this AMP Update.

- Section 5 – New information disclosure requirements following the publishing of the 2023 AMP.

MLL has not identified any material changes to its asset management practices that would affect its Schedule 13 Report on Asset Management Maturity disclosure, therefore it has not been updated and included with this AMP Update.



## 2. High Level Strategy

This section provides commentary on developments in MLL's objectives that will impact on MLL's asset management approach in the future and highlights future challenges including those related to technology and de-carbonisation developments.

### 2.1. 2023/2024 Statement of Corporate Intent

The 2023/24 Statement of Corporate Intent (SCI) sets out the MLL directors' overall intentions and objectives for MLL and its subsidiaries for the financial year ended 30 June 2024 and the two succeeding financial years. The SCI and MLL's mission and vision were referred to in section 5.3 of the 2023 AMP. Aspects of the SCI impact upon MLL's Asset Management Strategy.

MLL's Mission is to:

***Deliver sustainable regional growth and equity through people, technology, and environmental leadership***

The electricity industry is at a point where substantial change is occurring largely due to technological progress and concerns about the climate combining to alter the way in which MLL's network is being used such as:

- Increased uptake of electric vehicles;
- Residential consumers becoming electricity generators through installation of solar (PV) arrays on their homes;
- industrial consumers looking to decarbonise their processes and move away from the likes of burning coal/woodchips, to using electricity;
- major transport moving to electricity e.g. Marlborough's proposed hybrid electric ferries, and possible electric planes;
- Increased medium scale (>0.5 MW) embedded generation network connections; and
- Consumers wanting to be able to store energy in batteries and trade electricity across MLL's network.

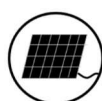
In a decarbonised world, for Marlborough to grow, MLL needs to provide a **resilient, reliable, and future-proofed electricity network**.

To achieve MLL's mission and vision of the future, in 2021 MLL developed the following six **Strategic Objectives** that are at the core of MLL's business:



#### **Assets**

Optimise our assets to provide a flexible, dynamic, and resilient network to accommodate future technologies and promote regional growth.



#### **Technology and Innovation**

Empower our consumers and region by deploying technology and commercial innovation to accelerate electrification and provide for future load growth.



### Financial Objectives

Deliver value to all of our consumers through efficient operations and investment success.



### Our People

Provide a workplace where our people are valued, engaged, and inspired to deliver positive personal and Company outcomes for the benefit of all consumers.



### Community






Improve energy equity and support regional growth through education, employment, sponsorship and investments.



### Environment

Minimise our environmental footprint through operational efficiencies, reducing net carbon emissions, and supporting regional environmental initiatives.

To measure MLL’s performance against these Strategic Objectives MLL developed the following **Performance Targets**. These strategic objectives and performance targets will impact on MLL’s Asset Management Planning. MLL’s Group performance targets that may impact upon the Asset Management Plan for the next three financial years assuming a normalised operating environment are:

	Performance Targets	2024 Target	2025 Target	2026 Target
	<b>Assets</b> <ul style="list-style-type: none"> <li>Asset Maturity rating</li> <li>Total SAIDI</li> </ul>	2.9 165 min	2.92 165 min	2.94 157 min
	<b>Technology and Innovation</b> <ul style="list-style-type: none"> <li>Cumulative number of deployed non-network solutions</li> <li>MLL Owned Renewable generation</li> </ul>	2 4 MW	4 8 MW	8 12 MW
	<b>Our People</b> Number of serious harm incidents	0	0	0
	<b>Community</b> Overall consumer satisfaction score	> 85%	> 85%	> 85%
	<b>Environment</b> MLL net GHG tonnes (negative = removals > emissions)	(750)	(750)	(750)

## 2.2. Planning for Change

In MLL's 2023 AMP, the section on Decarbonisation of Energy discussed various anticipated load changes. Much of this growth area is still difficult to forecast and significant changes since the last AMP include:

- Cancellation of the KiwiRail iReX project in Picton. Previously an approximately 9MVA step load increase was anticipated due to ferry electrification and charging;
- 770 kWac Taylor Pass solar PV project completed and operational. In good weather this has occasionally reduced the Hospital Rd West 11kV feeder load to zero;
- Park Terrace EV Charging Hub completed in Blenheim (3 x 150kW and 1 x 250kW chargers); and
- Seaview approximately 4MW solar PV plant under construction in 2024.


As previously reported, MLL is actively working with EDBs across New Zealand, and other industry participants to consider the likely impacts from the rise of Distributed Energy Resources (DERs) and options for its management. MLL will embrace and adopt new technologies when it believes there will be benefit to the network and/or consumers.

MLL has concerns about some potential impacts of recent load management technologies. At times, MLL currently reduces its network's peak load by up to 15% through the use of its hot water ripple control systems in order to reduce capital expenditure in the transmission and distribution networks. It appears that the ability to reduce distribution network peak load may gradually be eroded by others using remote demand management. As retailers and demand response aggregators enter into hot water and management of other customer loads it is unclear what the impact might be on network and transmission peaks. It is hoped that peak energy prices would occur at the same time as peak network loading, and therefore retailer and aggregator demand management might act in a similar way as MLL's load management, resulting in similar peak load reduction outcomes. MLL is concerned about the potential level of "snap-back" that occurs when load management is turned off after a peak. Careful management of the return to load is required after an off-load period to avoid causing a larger peak than would have occurred without demand management. There is potential for customers whose load is managed by aggregators to have extended off-load periods due to MLL's ripple control extending the aggregators load control periods in order to manage network peaks. This could result in unsatisfactory service levels to some customers.

Load factor is the ratio of average load in relation to the peak load and is a measure of efficiency of asset utilisation. It is anticipated that as hot water load control by others increases, that the network load factor will reduce. Without certainty and with reducing ability to manage distribution network loading it seems likely that to ensure the transmission and distribution networks are sufficient for customer needs, that MLL will need to invest more heavily than it would otherwise invest in distribution infrastructure. MLL anticipates less than 10% loss of hot water flex by the end of the next AMP period. It is unclear how this might accelerate investment in MLL's assets.

MLL is running a number of pilot projects investigating the ability to improve the visibility and understanding of loading on 400V assets and transformers that may be impacted by more customer PV installations and EV chargers.





As per the 2021 to 2023 AMPs, whilst the installation of distributed generation within the network is increasing (solar in particular), the levels are still small in total and a concerning rate of increase is not yet evident. The current level of secure network capacity is also allowing MLL time to assess the effects of electric vehicle (EV) load as it arises. It is not expected that EV numbers in Marlborough will increase at such a rate that MLL will not be able to respond to meet the demand. MLL will consider alternative line delivery price structures, if deemed appropriate<sup>3</sup>, to manage potential significant increased demand from EVs. A close watch will be maintained on these new technologies to continuously assess their effects through monitoring and modelling.

Enquiries for large scale solar plant connections have similarly not raised any concern about network capacity. Potential solar plant generation developers appear to be focused on limiting the scale of their plants to the ability of the existing network to distribute their power without significant network enhancement.

MLL is aware of potential wind farm sites where landowners have signed agreements for investigations and potential progression by wind generation developers. These developers have not formally approached MLL. In the cases where MLL is aware of potential developments, MLL's existing network is unlikely to support the potential wind generation without large investment by the developers. MLL plans to develop its network to satisfy generation needs as they become evident, appropriate and equitable.

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<sup>3</sup> From 1 April 2022 consumers may elect to install dedicated EV chargers or charge points as MLL controllable load. MLL has offered this option as a mitigation for potential load increases, and the consumer benefits through a lower c/kWh energy price.

## 3. Material Changes

This section provides a summary of material changes from the 2023 AMP to the network development plans, lifecycle asset management and asset management practices at MLL. The schedules relating to this are summarised in Section 4 (with the schedules themselves disclosed separately with this AMP Update).

MLL considers that the forecasts set out in the schedules provide an accurate summary of the expected required investment and network performance for this planning period.

### 3.1. Network development plans

Relative to MLL's 2023 AMP, there are few material changes to MLL's forecast load growth and network development plans.

As discussed in section 2.2, there is an increasing number of solar and wind generators in the region and MLL is maintaining a close watch on generation growth in order to determine constraints as they arise. However, it is difficult to forecast with any certainty, as in MLL's experience, applications to connect medium scale distributed generation to the network can come with little warning, and it is difficult to forecast whether they will build even after the completion of an application.

Embedded or distributed generation with solar and/or wind as the primary energy source is not considered to be sufficiently diverse or reliable enough to reduce or defer capital expenditure for meeting peak demand. Solar has limited production during the winter months where MLL's peak loads and highest energy flows often occur, while the production from wind is highly variable. As indicated in the 2023 AMP, Energy Marlborough Limited (EML) has applications for connections of solar generation at Seaview (near Seddon) and Ward which will likely use all of the remaining capacity for large-scale generation of the existing network in the East Coast area.

MLL is not anticipating any significant network capital expenditure will be needed to accommodate these particular large-scale solar plants other than at the connection of the plants to the network. These point of connection upgrades are similar to other commercial customer connections and will be funded by the generation applicant.

Material changes are described below.

#### 3.1.1. Marlborough Sounds "Gateway" Planning Area

Section 8.3 of the 2023 AMP anticipated a probable 9MVA load increase within Picton due to electrification of KiwiRail ferries. This would have necessitated a new zone substation (Waitohi Substation) and some upgrades of 33kV lines between Blenheim and Picton. There is no longer any certainty that this load increase will occur in the planning timeframes and therefore the upgrades required to meet the load increase are no longer in MLL's plans.

MLL is dealing with a number of enquiries for larger scale load connections in the Picton marine areas (in the order of up to 3MVA of potential total load increase), but these are at the enquiry stage and without any certainty of connections progressing. They have not been

included in this year’s forecasts. Due to the nature of these enquiries, this may result in significant load and capex forecast changes year on year.

Substation	Security rating	Secure capacity (MVA)	2023 (actual)	2024	2029	2034
Havelock	N-1	5.0	2.5	2.5	2.6	2.6
Linkwater	N	5.0	3.5	3.5	3.5	3.5
Picton	N-1	15.0	7.0	7.0	7.1	7.2
Rai Valley	N	3.0	2.0	2.0	2.0	2.1
Waitohi	-	-	-	-	-	-

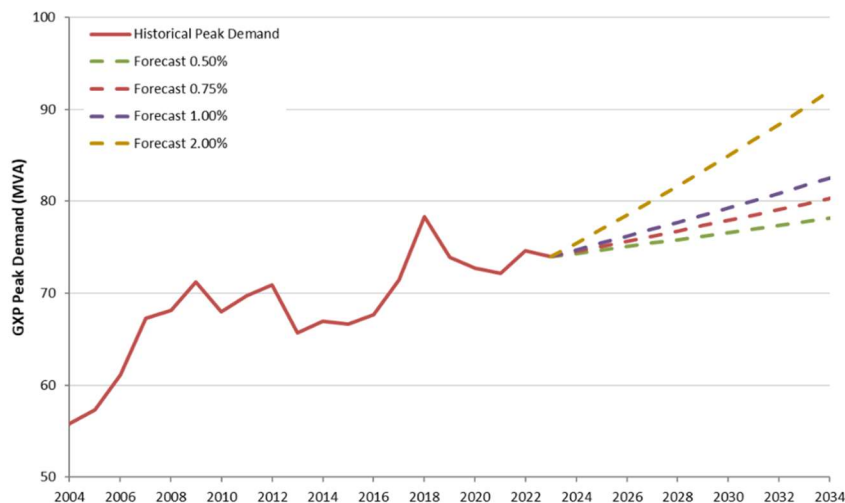
**Table 1: Marlborough Sounds gateway area zone substation maximum demand forecasts**

A step increase at the Blenheim GXP of less than 9MVA (due to diversity) was also anticipated in the 2023 AMP (section 8.2) due to the electrification of the KiwiRail ferries. This step change is no longer anticipated. This has no impact on GXP planned investments in the planning period.

Substation	Security rating	Secure capacity (MVA)*	2023 (actual)	2024	2029	2034
Blenheim GXP	N-1	100	74.0	74.5	77.4	80.3

\*Maximum continuous summer daytime capacity

**Table 2: Blenheim maximum demand forecast**



**Figure 1: Network peak demand trend and forecast**

### 3.1.2. Wairau Plains Planning Area

The 2023 AMP section 8.3 planned projects for the Wairau Plains planning area are unchanged however there is now increased clarity on the Wairau Valley Capacity Upgrade where a 33kV feeder and substation is required in the area to relieve constraints. It is anticipated that the substation would be completed before 2026 and that some Tapp substation 11kV feeder load would then shift to the new substation, and that due to lifted constraints the load would pick up more rapidly with approximately 5MVA peak load anticipated on the new substation within ten years.

Substation	Security rating	Secure capacity (MVA)	2023 (actual)	2024	2029	2034
Leefield	N	5.0	1.9	2.0	2.2	2.5
Spring Creek	N-1	5.0	3.5	3.5	3.8	4.1
Tapp	N-1	16.5	9.7	9.9	9.3	10.3
Woodbourne	N-1	10.0	8.1	8.3	9.1	10.1
Wairau Valley	-	-	-	-	4.0	5.0

**Table 3: Wairau Plains area zone substation maximum demand forecasts**

### 3.2. Lifecycle asset management

For the planning period covered in this AMP update, there are no material changes for lifecycle asset management.

### 3.3. Asset management practices

For the planning period covered in this AMP update, there are no material changes for asset management practices.

## 4. ID schedules

This section provides details on the ID Schedules which are disclosed with this AMP Update. Where there are material changes from the 2023 AMP, or where there are significant variations between the 2023 AMP forecast costs vs the actual costs for the current disclosure year, these have been identified and are accompanied by explanatory notes.

### 4.1. Schedule 11a – Forecast Capital Expenditure

#### 4.1.1. Current year 2024

The high-profile cancellation of the KiwiRail iReX project has significantly altered MLL’s capital expenditure in Disclosure Year 2024 (DY24). Major upgrades to the subtransmission network between Blenheim and Picton and the construction of a new zone substation near Port Marlborough had originally been planned - however with the iReX project no longer proceeding, the associated MLL projects were not progressed and have now been removed from the forecast.

Construction delays at the new 33kV switchroom at Woodbourne Zone Substation and the rescheduling of a new 33kV switchroom at Spring Creek Substation have also impacted the forecast. Additionally, contracting for MLL’s planned new Advanced Distribution Management System (ADMS) has been slower than anticipated which has again negatively impacted expenditure in DY24. Although delayed, these projects are still proceeding and the expenditure has now been reforecast through DY25, DY26 and DY27.

With no firm commitment regarding a customer driven project to construct a new zone substation in the Kaituna area – MLL has also opted to reallocate the planned expenditure to another system growth project in the Wairau Valley area.

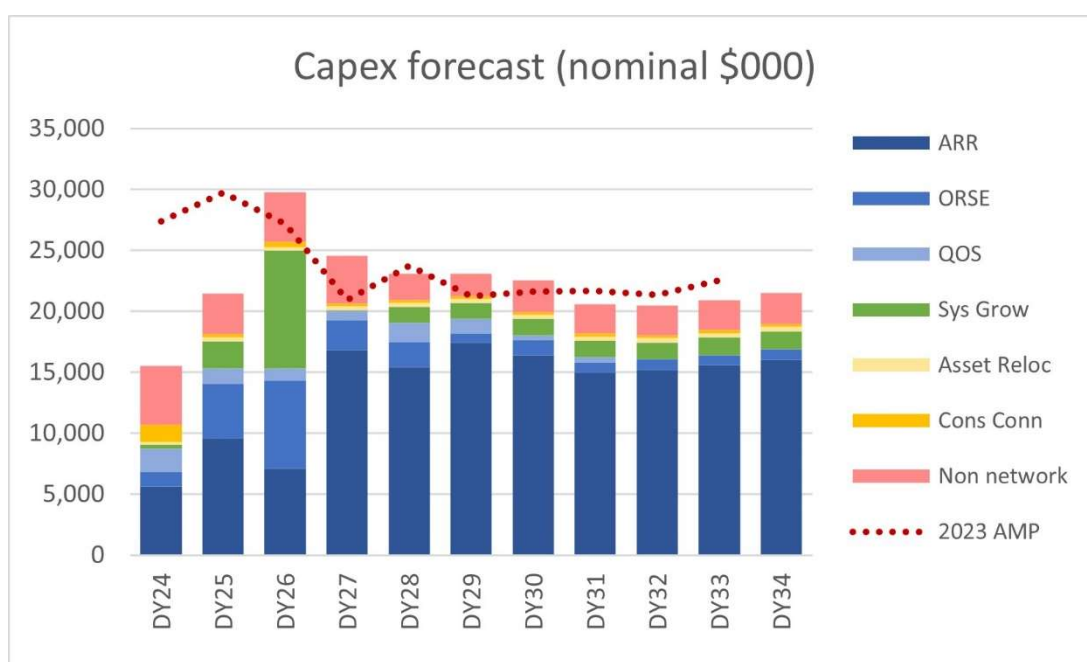


Figure 2: 2024 AMP Update Capex Forecasts (nominal dollars)

#### **4.1.2. Forecast years – regulatory years 2025 to 2034**

Installation of new 33kV infrastructure in Marlborough’s Wairau Valley is a major component of the forecast expenditure in DY25 and DY26. This programme of work was referenced in the 2023 AMP but with uncertainty around funding and the ability to deliver concurrently with the iReX work, expenditure for the programme was not included in the forecast.

However, this situation has now changed and with MLL continuing to receive enquiries for additional load to support vineyard development, MLL has opted to proceed with the installation of new overhead and underground assets and the construction of a new 33kV/11kV zone substation.

The delivery of this programme across DY25 and DY26 and the ongoing work on the ADMS project has elevated the planned expenditure in DY26 in particular. The technical diversity between these major projects (field resources for Wairau Valley versus IT resources for the ADMS), combined with the use of externally contracted resources on these projects, is planned to provide capacity to ensure timely delivery. Expenditure from DY27 to DY34 remains consistent with that previously forecast in the 2023 AMP.

#### **4.2. Schedule 11b – Forecast Operational Expenditure**

For the planning period covered in this AMP update, there are no material changes to forecast operational expenditure. MLL is considering undertaking a Lidar survey of its network, however this expenditure has not been included in the forecast as no firm commitment to the project has been made.

#### **4.3. Schedule 12a – Asset Condition**

There are only minor changes to the asset condition values from those presented in the 2023 AMP.

#### **4.4. Schedule 12b – Forecast Capacity**

There have been three material changes to MLL’s forecast capacity values between this AMP Update and the values previously presented in the 2023 AMP.

The cancellation of KiwiRail’s iReX project has removed the need for a new zone substation at Waitohi Wharf in Picton. This has been removed from Schedule 12b.

The Wairau Valley Capacity Upgrade project has improved MLL’s understanding of the future electricity requirements in the outer Wairau Valley area. This has prompted MLL to plan for a new zone substation near the Wairau Valley township, expected to be completed 2026-27. This has been added to Schedule 12b.

A previously planned load transfer from Riverlands substation to Cloudy Bay substation has been deferred due to stalled negotiations with an affected landowner. This project would have

transferred 3MVA permanently via a new 11kV cable. MLL will retain this as a future option, however, it is currently beyond the 5-year forecast period.

Due to the deferred load transfer project, MLL has identified a + 5-year firm capacity constraint at Riverlands substation due to its transformer. MLL believes this constraint can be effectively managed by using the transfer capacity that already exists between Riverlands and Cloudy Bay substations, providing security to Riverlands substation and enabling it to operate above its firm capacity during peak periods. This explanation has been added to Schedule 12b.

#### **4.5. Schedule 12c – Forecast Network Demand**

There are only minor changes to the forecast network demand values in this AMP update from the 2023 AMP. Demand for electricity is increasing, but so too is the amount available from distribution generation (DG). MLL believes that the rate of demand growth will exceed DG growth and therefore anticipates incremental increases of system demand and energy through the GXP over the planning period.

MLL has previously forecast relatively static increases in the number of new irrigation connections per year. While this has been based on historic trends, it does not reflect the number of connection applications which have been declined due to capacity constraints in the typically rural or remote areas. As MLL now plans to construct a Wairau Valley zone substation around 2026-27, it is expected that there will be an increased number of new irrigation connections in the following years due to pent-up demand in the area.

#### **4.6. Schedule 12d – Forecast Interruptions and Duration**

Forecast interruptions and durations are included in Schedule 12d for the reporting period.

Section 6 of the 2023 AMP described MLL's Network performance and service levels. The average duration of non-supply per consumer per annum (SAIDI)<sup>4</sup> is the key measure of the "average" consumer's experience of supply reliability. In the 2023 AMP, unplanned SAIDI targets were 93 minutes for the DY24 to DY25 years, reducing to 85 minutes thereafter. The planned SAIDI was increased from 65 to 72 minutes for the period out to DY28. There are no changes to either of these targets in this AMP update.

For the current year, unplanned SAIDI is forecast at 88 SAIDI minutes. After major weather events in DY2 and DY23, no further major events have been experienced to date in DY24.

In the current year, planned SAIDI is forecast at 94 against a target of 72 minutes. The increase in planned SAIDI from previous years is a reflection of the both the increase of work on the network where in many cases no alternative supply is available, and MLL's decision to use its fleet of generators more sparingly for planned shutdowns. This was discussed in section 6.1.1.2 of the 2023 AMP.

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<sup>4</sup> SAIDI = System Averaged Interruption Duration Index expressed in minutes per consumer.

## 5. New Information Disclosure Requirements

This section describes information disclosure requirements that have been required subsequent to the 2023 AMP, and MLL's responses to those requirements.

In June 2023 MLL published on its website <https://www.marlboroughlines.co.nz/corporate-information> a document "Information Disclosure Determination 2012 Additional Requirements (Attachment A 17.1 to 17.6) for 30 June 2023". This document was prepared to meet new requirements introduced to the Electricity Distribution Information Disclosure Determination 2012 (consolidated May 2023) which must be publicly disclosed by 30 June 2023.

These new Information Disclosure requirements prescribe that MLL's AMP "must include qualitative information in narrative form, as prescribed in clauses 17.1-17.7". However, the requirements may be disclosed in a standalone document published on MLL's website, by 30 June 2023.

Some of the information required by clauses 17.1 to 17.6 was included in MLL's 2023 AMP. Section 12.3 of the MLL 2023 AMP provides a table of regulatory requirements and those that were addressed in that AMP. Those that were not included in the AMP were included in the standalone document referred to above.

There are no material changes to requirements 17.1 to 17.6 for this AMP update.

Further new disclosures clauses 12.5 to 12.6 were required to be published by 1 April 2024. These are discussed below.

*12.5 Identification of the approach used for developing capital expenditure projections for lifecycle asset management. This must include an explanation of:*

*12.5.1 the approach that the EDB uses to inform its capital expenditure projections for lifecycle asset management; and*

*12.5.2 the rationale for using the approach for each asset category.*

There are no material changes to MLL's approach to developing capital expenditure projections for lifecycle asset management from the approach described in section 7.0 and 10 of the 2023 AMP. Section 7.1.1 explains that MLL seeks to continuously improve its asset management practices. This remains the case with the collection of asset health data being increasingly supplemented with the application of criticality factors to determine overall risk for any particular asset class.

*12.6 Identification of vegetation management related maintenance. This must include an explanation of the approach and assumptions that the EDB uses to inform its vegetation management related maintenance.*

This information is discussed extensively in the 2023 AMP particularly in sections 7.6 and 10.13 but also in sections 4.1.1.4, 6, 6.3, and 7.4.2.7.



*12.7 The EDB's consideration of non-network solutions to inform its capital and operational expenditure projections for lifecycle asset management. This must include an explanation of the approach and assumptions the EDB used to inform these expenditure projections;*

As discussed above and in the 2023 AMP, MLL has a strong desire for non-network solutions and has set SCI performance targets in this regard, however largely due to the good performance of MLL's network, customers have been reluctant to accept non-network solutions and MLL has struggled to meet this target. Non-network solutions are discussed in section 7.9, 8.3.4.4 and 8.4.2 and referred to in section 7.1.3 of the 2023 AMP.

MLL strongly relies on hot water ripple control for minimisation of capital expenditure by reducing the network's peak demand. The peak is currently reduced by approximately 15% during high load periods through the use of ripple controls.

Remote fixed diesel generators are also relied upon to avoid upgrading remote parts of MLL's Marlborough Sound network as discussed in section 10.6 and 7.8 of the 2023 AMP.

There are no material changes to requirements 12.6 and 12.7 for this AMP update.





**EDB Information Disclosure Requirements  
Information Templates  
for  
Schedules 11a–13**

<b>Company Name</b>	<a href="#">Marlborough Lines Limited</a>
<b>Disclosure Date</b>	<a href="#">21 March 2024</a>
<b>AMP Planning Period Start Date (first day)</b>	<a href="#">1 April 2024</a>

**Templates for Schedules 11a–13 (Asset Management Plan)**  
Template Version 4.1. Prepared 21 December 2017

## Table of Contents

### Information disclosure asset management plan schedules

Schedule	Schedule name
11a	<a href="#">REPORT ON FORECAST CAPITAL EXPENDITURE</a>
11b	<a href="#">REPORT ON FORECAST OPERATIONAL EXPENDITURE</a>
12a	<a href="#">REPORT ON ASSET CONDITION</a>
12b	<a href="#">REPORT ON FORECAST CAPACITY</a>
12c	<a href="#">REPORT ON FORECAST NETWORK DEMAND</a>
12d	<a href="#">REPORT FORECAST INTERRUPTIONS AND DURATION</a>
13	<a href="#">REPORT ON ASSET MANAGEMENT MATURITY</a>

**Disclosure Template Instructions**

These templates have been prepared for use by EDBs when making disclosures under subclauses 2.6.1(1)(d), 2.6.1(1)(e), 2.6.1(2), 2.6.5(6), 2.6.6(1) and 2.6.6(2) of the Electricity Distribution Information Disclosure Determination 2012. The EDB may include a completed Schedule 13: Report on Asset Management Maturity table with its disclosures made under subclause 2.6.6(1) and 2.6.6(2), but this is not required. Schedule 13 tables that are not completed should be removed from disclosures made under subclause 2.6.6(1) and 2.6.6(2).

**Company Name and Dates**

To prepare the templates for disclosure, the supplier's company name should be entered in cell C8, the date of the first day of the 10 year planning period should be entered in cell C12, and the date on which the information is disclosed should be entered in cell C10 of the CoverSheet worksheet.

The cell C12 entry (planning period start date) is used to calculate disclosure years in the column headings that show above some of the tables. It is also used to calculate the AMP planning period dates in the template title blocks (the title blocks are the light green shaded areas at the top of each template).

The cell C8 entry (company name) is used in the template title blocks.

Dates should be entered in day/month/year order (Example -"1 April 2013").

**Data Entry Cells and Calculated Cells**

Data entered into this workbook may be entered only into the data entry cells. Data entry cells are the bordered, unshaded areas (white cells) in each template. Under no circumstances should data be entered into the workbook outside a data entry cell.

In some cases, where the information for disclosure is able to be ascertained from disclosures elsewhere in the workbook, such information is disclosed in a calculated cell.

**Validation Settings on Data Entry Cells**

To maintain a consistency of format and to guard against errors in data entry, some data entry cells test entries for validity and accept only a limited range of values. For example, entries may be limited to a list of category names or to values between 0% and 100%. Where this occurs, a validation message will appear when data is being entered.

**Conditional Formatting Settings on Data Entry Cells**

Schedule 12a columns G to K contains conditional formatting. The cells will change colour if the row totals do not add to 100%.

**Inserting Additional Rows**

The templates for schedules 11a, 12b and 12c may require additional rows to be inserted in tables marked 'include additional rows if needed'.

Additional rows must not be inserted directly above the first row or below the last row of a table. This is to ensure that entries made in the new row are included in the totals.

For schedule 12b the formula for column J (Utilisation of Installed Firm Capacity %) will need to be copied into the inserted row(s).

Column A schedule references should not be entered in additional rows.

**Schedule References**

The references labelled 'sch ref' in the leftmost column of each template are consistent with the row references in the Electricity Distribution ID Determination 2012 (as issued on 21 December 2017). They provide a common reference between the rows in the determination and the template.

**Description of Calculation References**

Calculation cell formulas contain links to other cells within the same template or elsewhere in the workbook. Key cell references are described in a column to the right of each template. These descriptions are provided to assist data entry. Cell references refer to the row of the template and not the schedule reference.



**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 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29	CY+6 31 Mar 30	CY+7 31 Mar 31	CY+8 31 Mar 32	CY+9 31 Mar 33	CY+10 31 Mar 34
<b>Difference between nominal and constant price forecasts</b>	<b>\$000</b>										
Consumer connection	0	6	17	13	17	22	26	31	35	40	45
System growth	0	53	410	4	106	129	156	183	210	238	267
Asset replacement and renewal	0	225	303	1,032	1,231	1,704	1,892	1,994	2,281	2,594	2,932
Asset relocations	0	8	13	20	26	33	39	46	53	60	67
Reliability, safety and environment:											
Quality of supply	0	29	44	49	124	116	47	55	0	0	0
Legislative and regulatory	0	0	0	0	0	0	0	0	0	0	0
Other reliability, safety and environment	0	104	307	150	165	76	145	108	124	141	158
<b>Total reliability, safety and environment</b>	0	134	350	198	289	193	192	163	124	141	158
<b>Expenditure on network assets</b>	0	425	1,094	1,268	1,668	2,081	2,305	2,416	2,704	3,073	3,468
Expenditure on non-network assets	0	78	174	240	172	178	297	318	366	415	464
<b>Expenditure on assets</b>	0	503	1,268	1,508	1,841	2,259	2,602	2,734	3,070	3,488	3,932

**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 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
<b>11a(ii): Consumer Connection</b>	<b>\$000 (in constant prices)</b>					
<i>Consumer types defined by EDB*</i>						
Residential	128	92	150	80	80	80
General	854	92	150	80	80	80
Commercial and Industrial	379	46	75	40	40	40
Irrigation	27	-	-	-	-	-
<i>*Include additional rows if needed</i>						
<b>Consumer connection expenditure</b>	1,389	231	374	200	200	200
less Capital contributions funding consumer connection						
<b>Consumer connection less capital contributions</b>	1,389	231	374	200	200	200

<b>11a(iii): System Growth</b>						
Subtransmission	132	1,367	5,599	-	-	-
Zone substations	63	780	3,309	-	-	-
Distribution and LV lines	-	-	-	64	1,223	-
Distribution and LV cables	7	56	315	-	-	1,192
Distribution substations and transformers	103	-	-	-	-	-
Distribution switchgear						
Other network assets						
<b>System growth expenditure</b>	305	2,203	9,223	64	1,223	1,192
less Capital contributions funding system growth						
<b>System growth less capital contributions</b>	305	2,203	9,223	64	1,223	1,192

**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 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
<b>96</b>						
<b>97</b>						
<b>98</b>	<b>11a(iv): Asset Replacement and Renewal</b>					
<b>99</b>	<b>\$000 (in constant prices)</b>					
	804	893	-	-	300	1,702
<b>100</b>	1,627	3,682	1,449	2,776	986	103
<b>101</b>	2,410	2,308	2,611	10,899	10,439	10,873
<b>102</b>	140	206	300	562	562	562
<b>103</b>	210	-	815	884	951	951
<b>104</b>	439	2,286	1,637	672	958	1,531
<b>105</b>	27	-	-	-	-	-
<b>106</b>	<b>5,657</b>	<b>9,375</b>	<b>6,812</b>	<b>15,793</b>	<b>14,197</b>	<b>15,722</b>
<b>107</b>	less					
	Capital contributions funding asset replacement and renewal					
<b>108</b>	<b>Asset replacement and renewal less capital contributions</b>	<b>5,657</b>	<b>9,375</b>	<b>6,812</b>	<b>15,793</b>	<b>14,197</b>
<b>109</b>						

	Current Year CY 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
<b>110</b>						
<b>111</b>						
<b>112</b>	<b>11a(v): Asset Relocations</b>					
<b>113</b>	<b>\$000 (in constant prices)</b>					
	4	300	300	300	300	300
<b>114</b>	Roading Authority					
<b>115</b>	Transpower	21	34	-	-	-
<b>116</b>						
<b>117</b>						
<b>118</b>						
<b>119</b>	<i>*Include additional rows if needed</i>					
<b>120</b>	All other project or programmes - asset relocations					
<b>121</b>	<b>218</b>					
<b>122</b>	<b>Asset relocations expenditure</b>	<b>243</b>	<b>334</b>	<b>300</b>	<b>300</b>	<b>300</b>
<b>123</b>	less					
	Capital contributions funding asset relocations					
<b>124</b>	<b>Asset relocations less capital contributions</b>	<b>243</b>	<b>334</b>	<b>300</b>	<b>300</b>	<b>300</b>

	Current Year CY 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
<b>125</b>						
<b>126</b>						
<b>127</b>	<b>11a(vi): Quality of Supply</b>					
<b>128</b>	<b>\$000 (in constant prices)</b>					
	1,522	556	-	-	-	-
<b>129</b>	33kV network development and enhancement					
<b>130</b>	315	375	533	358	358	-
<b>131</b>	Network Automation					
<b>132</b>	47	-	-	-	-	-
<b>133</b>	Digital Radio Network					
<b>134</b>	<i>*Include additional rows if needed</i>					
<b>135</b>	All other projects or programmes - quality of supply					
<b>136</b>	<b>0</b>	<b>295</b>	<b>451</b>	<b>387</b>	<b>1,073</b>	<b>1,073</b>
<b>137</b>	<b>Quality of supply expenditure</b>	<b>1,884</b>	<b>1,226</b>	<b>984</b>	<b>745</b>	<b>1,431</b>
<b>138</b>	less					
	Capital contributions funding quality of supply					
<b>139</b>	<b>Quality of supply less capital contributions</b>	<b>1,884</b>	<b>1,226</b>	<b>984</b>	<b>745</b>	<b>1,431</b>

**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 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
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**11a(vii): Legislative and Regulatory**

Project or programme*	\$000 (in constant prices)					
<i>*include additional rows if needed</i>						
All other projects or programmes - legislative and regulatory						
<b>Legislative and regulatory expenditure</b>	0	0	0	0	0	0
less Capital contributions funding legislative and regulatory						
<b>Legislative and regulatory less capital contributions</b>	0	0	0	0	0	0

	Current Year CY 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
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**11a(viii): Other Reliability, Safety and Environment**

Project or programme*	\$000 (in constant prices)					
Advanced Distribution Management System (ADMS)	124	1,966	1,966	621	621	-
Spring Creek Upgrade	22	485	2,425	323	-	-
SCADA	68	-	-	-	-	-
Network Automation	50	-	-	-	-	-
Distribution Pillar Replacements	3	200	200	200	200	200
Distribution TX Replacements (OH to UG)	286	547	665	405	405	405
Tee-joint Removals	73	100	100	100	100	100
<i>*include additional rows if needed</i>						
All other projects or programmes - other reliability, safety and environment	569	1,043	1,538	641	572	0
<b>Other reliability, safety and environment expenditure</b>	1,195	4,341	6,894	2,290	1,898	705
less Capital contributions funding other reliability, safety and environment						
<b>Other reliability, safety and environment less capital contributions</b>	1,195	4,341	6,894	2,290	1,898	705

	Current Year CY 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
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**11a(ix): Non-Network Assets**

Project or programme*	\$000 (in constant prices)					
Test Equipment	78	50	50	50	50	50
Plant and Tools	374	350	350	350	350	350
Vehicles	2,487	1,742	1,029	793	1,062	768
Radio Equipment	0	5	5	5	5	5
Office Furniture & Equipment	71	25	25	125	75	25
Land and buildings	1,284	125	125	125	125	125
IT Hardware	492	500	400	300	300	300
Software	80	20	20	20	20	20
<i>*include additional rows if needed</i>						
All other projects or programmes - routine expenditure						
<b>Routine expenditure</b>	4,865	2,817	2,004	1,768	1,987	1,643
<b>Atypical expenditure</b>						
Project or programme*						
NOC Building	-	424	1,908	1,908	-	-
<i>*include additional rows if needed</i>						
All other projects or programmes - atypical expenditure						
<b>Atypical expenditure</b>	0	424	1,908	1,908	0	0



Company Name

Marlborough Lines Limited

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*

192

193

194

Expenditure on non-network assets

4,865

3,241

3,912

3,676

1,987

1,643

Company Name **Marlborough Lines Limited**  
 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). 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
	for year ended 31 Mar 24	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
<b>Operational Expenditure Forecast</b>	<b>\$000 (in nominal dollars)</b>										
Service interruptions and emergencies	1,710	1,536	1,567	1,598	1,630	1,663	1,696	1,730	1,764	1,800	1,836
Vegetation management	2,250	2,560	2,559	2,557	2,554	2,549	2,544	2,537	2,529	2,520	2,570
Routine and corrective maintenance and inspection	5,300	4,710	4,752	4,794	4,836	4,877	4,918	4,959	5,058	5,159	5,262
Asset replacement and renewal	1,027	819	836	852	869	887	904	923	941	960	979
<b>Network Opex</b>	<b>10,287</b>	<b>9,626</b>	<b>9,714</b>	<b>9,801</b>	<b>9,889</b>	<b>9,976</b>	<b>10,062</b>	<b>10,148</b>	<b>10,292</b>	<b>10,438</b>	<b>10,647</b>
System operations and network support	4,875	5,683	5,901	6,019	6,140	6,263	6,388	6,516	6,646	6,779	6,914
Business support	5,950	5,837	5,954	6,073	6,194	6,318	6,444	6,573	6,705	6,839	6,976
<b>Non-network opex</b>	<b>10,825</b>	<b>11,520</b>	<b>11,855</b>	<b>12,092</b>	<b>12,334</b>	<b>12,580</b>	<b>12,832</b>	<b>13,089</b>	<b>13,350</b>	<b>13,617</b>	<b>13,890</b>
<b>Operational expenditure</b>	<b>21,112</b>	<b>21,146</b>	<b>21,569</b>	<b>21,893</b>	<b>22,223</b>	<b>22,556</b>	<b>22,894</b>	<b>23,237</b>	<b>23,643</b>	<b>24,056</b>	<b>24,537</b>
	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5	CY+6	CY+7	CY+8	CY+9	CY+10
	for year ended 31 Mar 24	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
	<b>\$000 (in constant prices)</b>										
Service interruptions and emergencies	1,710	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Vegetation management	2,250	2,500	2,450	2,400	2,350	2,300	2,250	2,200	2,150	2,100	2,100
Routine and corrective maintenance and inspection	5,300	4,600	4,550	4,500	4,450	4,400	4,350	4,300	4,300	4,300	4,300
Asset replacement and renewal	1,027	800	800	800	800	800	800	800	800	800	800
<b>Network Opex</b>	<b>10,287</b>	<b>9,400</b>	<b>9,300</b>	<b>9,200</b>	<b>9,100</b>	<b>9,000</b>	<b>8,900</b>	<b>8,800</b>	<b>8,750</b>	<b>8,700</b>	<b>8,700</b>
System operations and network support	4,875	5,550	5,650	5,650	5,650	5,650	5,650	5,650	5,650	5,650	5,650
Business support	5,950	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700	5,700
<b>Non-network opex</b>	<b>10,825</b>	<b>11,250</b>	<b>11,350</b>	<b>11,350</b>	<b>11,350</b>	<b>11,350</b>	<b>11,350</b>	<b>11,350</b>	<b>11,350</b>	<b>11,350</b>	<b>11,350</b>
<b>Operational expenditure</b>	<b>21,112</b>	<b>20,650</b>	<b>20,650</b>	<b>20,550</b>	<b>20,450</b>	<b>20,350</b>	<b>20,250</b>	<b>20,150</b>	<b>20,100</b>	<b>20,050</b>	<b>20,050</b>
<b>Subcomponents of operational expenditure (where known)</b>											
Energy efficiency and demand side management, reduction of energy losses	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Direct billing*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Research and Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Insurance	479	485	485	485	485	485	485	485	485	485	485
* 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
	for year ended 31 Mar 24	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
<b>Difference between nominal and real forecasts</b>	<b>\$000</b>										
Service interruptions and emergencies	-	36	67	98	130	163	196	230	264	300	336
Vegetation management	-	60	109	157	204	249	294	337	379	420	470
Routine and corrective maintenance and inspection	-	110	202	294	386	477	568	659	758	859	962
Asset replacement and renewal	-	19	36	52	69	87	104	123	141	160	179
<b>Network Opex</b>	<b>-</b>	<b>226</b>	<b>414</b>	<b>601</b>	<b>789</b>	<b>976</b>	<b>1,162</b>	<b>1,348</b>	<b>1,542</b>	<b>1,738</b>	<b>1,947</b>
System operations and network support	-	133	251	369	490	613	738	866	996	1,129	1,264
Business support	-	137	254	373	494	618	744	873	1,005	1,139	1,276
<b>Non-network opex</b>	<b>-</b>	<b>270</b>	<b>505</b>	<b>742</b>	<b>984</b>	<b>1,230</b>	<b>1,482</b>	<b>1,739</b>	<b>2,000</b>	<b>2,267</b>	<b>2,540</b>
<b>Operational expenditure</b>	<b>-</b>	<b>496</b>	<b>919</b>	<b>1,343</b>	<b>1,773</b>	<b>2,206</b>	<b>2,644</b>	<b>3,087</b>	<b>3,543</b>	<b>4,006</b>	<b>4,487</b>

Company Name **Marlborough Lines Limited**  
 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
7												
8												
9												
10	All	Overhead Line	Concrete poles / steel structure	No.	0.09%	6.52%	15.44%	58.05%	19.90%	0.16%	3	3.00%
11	All	Overhead Line	Wood poles	No.	0.40%	11.44%	28.06%	56.24%	3.86%	0.19%	3	5.00%
12	All	Overhead Line	Other pole types	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13	HV	Subtransmission Line	Subtransmission OH up to 66kV conductor	km	5.90%	13.75%	35.91%	9.47%	34.97%	-	3	4.00%
14	HV	Subtransmission Line	Subtransmission OH 110kV+ conductor	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15	HV	Subtransmission Cable	Subtransmission UG up to 66kV (XLPE)	km	-	0.18%	-	10.06%	89.76%	-	3	-
16	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Oil pressurised)	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17	HV	Subtransmission Cable	Subtransmission UG up to 66kV (Gas pressurised)	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18	HV	Subtransmission Cable	Subtransmission UG up to 66kV (PILC)	km	-	-	-	-	100.00%	0.02%	3	-
19	HV	Subtransmission Cable	Subtransmission UG 110kV+ (XLPE)	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Oil pressurised)	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21	HV	Subtransmission Cable	Subtransmission UG 110kV+ (Gas Pressurised)	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22	HV	Subtransmission Cable	Subtransmission UG 110kV+ (PILC)	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23	HV	Subtransmission Cable	Subtransmission submarine cable	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24	HV	Zone substation Buildings	Zone substations up to 66kV	No.	-	-	-	50.00%	50.00%	-	4	-
25	HV	Zone substation Buildings	Zone substations 110kV+	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26	HV	Zone substation switchgear	22/33kV CB (Indoor)	No.	-	-	-	12.50%	87.50%	-	4	-
27	HV	Zone substation switchgear	22/33kV CB (Outdoor)	No.	-	-	-	90.00%	10.00%	-	4	-
28	HV	Zone substation switchgear	33kV Switch (Ground Mounted)	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29	HV	Zone substation switchgear	33kV Switch (Pole Mounted)	No.	-	-	23.81%	28.57%	47.62%	-	3	6.00%
30	HV	Zone substation switchgear	33kV RMU	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31	HV	Zone substation switchgear	50/66/110kV CB (Indoor)	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32	HV	Zone substation switchgear	50/66/110kV CB (Outdoor)	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (ground mounted)	No.	-	-	-	23.24%	76.76%	-	3	-
34	HV	Zone substation switchgear	3.3/6.6/11/22kV CB (pole mounted)	No.	-	-	-	57.14%	42.86%	-	3	-
35												

Company Name **Marlborough Lines Limited**  
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**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
36												
37												
38												
39	HV	Zone Substation Transformer	Zone Substation Transformers	No.	-	6.45%	12.90%	22.58%	58.07%	-	4	9.60%
40	HV	Distribution Line	Distribution OH Open Wire Conductor	km	3.53%	19.69%	31.76%	17.53%	27.49%	-	3	7.00%
41	HV	Distribution Line	Distribution OH Aerial Cable Conductor	km	-	-	-	-	100.00%	-	4	-
42	HV	Distribution Line	SWER conductor	km	0.66%	15.76%	47.62%	27.55%	8.41%	-	3	1.00%
43	HV	Distribution Cable	Distribution UG XLPE or PVC	km	2.45%	1.30%	0.23%	23.91%	72.11%	0.67%	3	1.00%
44	HV	Distribution Cable	Distribution UG PILC	km	-	-	-	89.79%	10.21%	0.39%	3	-
45	HV	Distribution Cable	Distribution Submarine Cable	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46	HV	Distribution switchgear	3.3/6.6/11/22kV CB (pole mounted) - reclosers and sectionalisers	No.	-	1.90%	11.43%	11.43%	75.24%	-	3	3.00%
47	HV	Distribution switchgear	3.3/6.6/11/22kV CB (Indoor)	No.	-	13.64%	22.73%	-	63.63%	-	3	20.00%
48	HV	Distribution switchgear	3.3/6.6/11/22kV Switches and fuses (pole mounted)	No.	1.12%	3.21%	15.54%	31.50%	48.63%	2.00%	3	2.00%
49	HV	Distribution switchgear	3.3/6.6/11/22kV Switch (ground mounted) - except RMU	No.	-	10.30%	71.80%	17.90%	-	-	3	4.00%
50	HV	Distribution switchgear	3.3/6.6/11/22kV RMU	No.	-	5.90%	33.80%	32.00%	28.30%	-	3	4.00%
51	HV	Distribution Transformer	Pole Mounted Transformer	No.	0.20%	15.29%	46.01%	24.69%	13.81%	0.49%	3	2.00%
52	HV	Distribution Transformer	Ground Mounted Transformer	No.	-	8.64%	33.46%	38.60%	19.30%	-	3	2.00%
53	HV	Distribution Transformer	Voltage regulators	No.	-	-	19.35%	61.30%	19.35%	-	3	3.00%
54	HV	Distribution Substations	Ground Mounted Substation Housing	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
55	LV	LV Line	LV OH Conductor	km	10.02%	28.71%	41.18%	10.59%	9.50%	27.33%	2	6.50%
56	LV	LV Cable	LV UG Cable	km	4.27%	2.49%	2.82%	32.58%	57.84%	2.32%	3	1.00%
57	LV	LV Streetlighting	LV OH/UG Streetlight circuit	km	-	0.33%	8.44%	34.19%	57.04%	3.69%	2	1.00%
58	LV	Connections	OH/UG consumer service connections	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
59	All	Protection	Protection relays (electromechanical, solid state and numeric)	No.	0.46%	5.00%	49.32%	31.51%	13.71%	-	4	20.00%
60	All	SCADA and communications	SCADA and communications equipment operating as a single system	Lot	-	-	100.00%	-	-	-	3	100.00%
61	All	Capacitor Banks	Capacitors including controls	No.	-	100.00%	-	-	-	-	2	-
62	All	Load Control	Centralised plant	Lot	-	-	-	100.00%	-	-	4	-
63	All	Load Control	Relays	No.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
64	All	Civils	Cable Tunnels	km	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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**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

**7 12b(i): System Growth - Zone Substations**

8		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
9	<i>Existing Zone Substations</i>									
9	Cloudy Bay	5	17	N - 1	8	33%	17	38%	No constraint within +5 years	
10	Havelock	3	5	N - 1	2	50%	5	51%	No constraint within +5 years	
11	Leefield	2	5	N	1	38%	5	44%	No constraint within +5 years	
12	Linkwater	3	5	N	1	70%	5	70%	No constraint within +5 years	
13	Nelson St	14	17	N - 1	10	85%	20	77%	No constraint within +5 years	Planned installation of fans to increase TX rating to 20MVA ONAF.
14	Picton	7	15	N - 1	-	46%	15	47%	No constraint within +5 years	
15	Rai Valley	2	3	N	1	67%	5	41%	No constraint within +5 years	Planned TX replacement, T1 increases from 3MVA to 5MVA.
16	Redwoodtown	10	15	N - 1	8	69%	15	75%	No constraint within +5 years	
17	Riverlands	10	10	N - 1	8	102%	10	115%	Transformer	Riverlands and Cloudy Bay substations are complementary. In the +5 year period, MLL plans to use the transfer capacity between these substations as added security for Riverlands, minimising the risk associated with operating Riverlands above its firm capacity.
18	Seddon	6	10	N - 1	1	56%	10	61%	No constraint within +5 years	
19	Spring Creek	3	5	N - 1	4	69%	10	38%	No constraint within +5 years	Planned TX replacement, T1 & T2 replaced with 10MVA TXs.
20	Springlands	9	17	N - 1	10	54%	17	59%	No constraint within +5 years	
21	Tapp	10	17	N - 1	5	59%	17	56%	No constraint within +5 years	
22	Ward	1	5	N	1	15%	5	15%	No constraint within +5 years	
23	Waters	7	17	N - 1	10	43%	17	47%	No constraint within +5 years	
24	Woodbourne	8	10	N - 1	5	81%	17	55%	No constraint within +5 years	Planned TX replacement, T1 & T2 replaced with 16.5MVA TXs.
25	Wairau Valley	-	-	-	-	-	8	53%	No constraint within +5 years	Future substation (N security, some transfer capacity with Tapp).
26										
27										
28										

<sup>1</sup> Extend forecast capacity table as necessary to disclose all capacity by each zone substation

Company Name **Marlborough Lines Limited**  
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**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

7 <b>12c(i): Consumer Connections</b>		Number of connections					
		Current Year CY for year ended 31 Mar 24	CY+1 31 Mar 25	CY+2 31 Mar 26	CY+3 31 Mar 27	CY+4 31 Mar 28	CY+5 31 Mar 29
8	Number of ICPs connected in year by consumer type						
9							
10							
11	Consumer types defined by EDB*						
12	Residential	113	150	150	150	150	150
13	General	45	35	35	35	35	35
14	Commercial and Industrial	9	6	6	6	6	6
15	Irrigation	8	8	8	12	25	25
16	Other (MLL, unmetered, Street lights etc)	2	2	2	2	2	2
17	<b>Connections total</b>	<b>177</b>	<b>201</b>	<b>201</b>	<b>205</b>	<b>218</b>	<b>218</b>
18	*include additional rows if needed						
19	<b>Distributed generation</b>						
20	Number of connections	242	250	270	290	320	350
21	Capacity of distributed generation installed in year (MVA)	2	6	7	13	4	4
22	<b>12c(ii) System Demand</b>						
23							
24	<b>Maximum coincident system demand (MW)</b>						
25	GXP demand	74	75	75	76	76	77
26	plus Distributed generation output at HV and above	3	3	4	4	4	4
27	<b>Maximum coincident system demand</b>	<b>77</b>	<b>78</b>	<b>79</b>	<b>80</b>	<b>80</b>	<b>81</b>
28	less Net transfers to (from) other EDBs at HV and above	-	-	-	-	-	-
29	<b>Demand on system for supply to consumers' connection points</b>	<b>77</b>	<b>78</b>	<b>79</b>	<b>80</b>	<b>80</b>	<b>81</b>
30	<b>Electricity volumes carried (GWh)</b>						
31	Electricity supplied from GXPs	402	405	407	403	402	410
32	less Electricity exports to GXPs	-	-	-	-	-	-
33	plus Electricity supplied from distributed generation	18	24	30	43	53	54
34	less Net electricity supplied to (from) other EDBs	-	-	-	-	-	-
35	<b>Electricity entering system for supply to ICPs</b>	<b>420</b>	<b>429</b>	<b>437</b>	<b>446</b>	<b>455</b>	<b>464</b>
36	less Total energy delivered to ICPs	397	405	413	421	430	438
37	<b>Losses</b>	<b>23</b>	<b>24</b>	<b>24</b>	<b>25</b>	<b>25</b>	<b>26</b>
38							
39	<b>Load factor</b>	<b>62%</b>	<b>63%</b>	<b>63%</b>	<b>64%</b>	<b>65%</b>	<b>66%</b>
40	<b>Loss ratio</b>	<b>5.4%</b>	<b>5.5%</b>	<b>5.5%</b>	<b>5.5%</b>	<b>5.5%</b>	<b>5.5%</b>

Company Name	Marlborough Lines Limited
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Network / Sub-network Name	

**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		for year ended	Current Year CY	CY+1	CY+2	CY+3	CY+4	CY+5
			31 Mar 24	31 Mar 25	31 Mar 26	31 Mar 27	31 Mar 28	31 Mar 29
8								
9								
10	<b>SAIDI</b>							
11	Class B (planned interruptions on the network)		94.0	72.0	72.0	72.0	72.0	72.0
12	Class C (unplanned interruptions on the network)		88.0	93.0	85.0	85.0	85.0	85.0
13	<b>SAIFI</b>							
14	Class B (planned interruptions on the network)		0.38	0.50	0.50	0.50	0.50	0.50
15	Class C (unplanned interruptions on the network)		1.25	1.20	1.10	1.10	1.10	1.10

Company Name Marlborough Lines Limited  
For Year Ended 31 March 2024

## **Schedule 14a Mandatory Explanatory Notes on Forecast Information**

*(In this Schedule, clause references are to the Electricity Distribution Information Disclosure Amendment Determination 2022)*

1. This Schedule requires EDBs to provide explanatory notes to reports prepared in accordance with clause 2.6.6.

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)*

2. 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**  
Please refer to section 11.1.1 of the 2023 AMP.

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

3. 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**  
Please refer to section 11.1.1 of the 2023 AMP.




## Schedule 17 - Certification for Year-Beginning Disclosures

Pursuant to Schedule 17  
Clause 2.9.1

We, Philip Ian Robinson and Christopher Jonathan Ross, being directors of Marlborough Lines Limited certify that, having made all reasonable enquiry, to the best of our knowledge:

- a) the following attached information of Marlborough Lines 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 Marlborough Lines Limited's corporate vision and strategy and are documented in retained records.

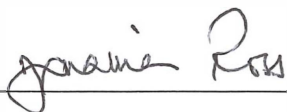
Signed by:



PI Robinson

21 March 2024

Date



CJ Ross

21 March 2024

Date