

# Rolling Stock ACMP Summary

## Network overview

Electric Multiple Units (EMU) 57, by August 2015

Diesel Multiple Units (DMU) Approximately 20, to be reduced to 10 by August 2015

## Condition profile

The new electric train assets are all in very good condition.

The existing diesel train assets that will be retained for ongoing service are in good to moderate condition.

## Data confidence (data in AT databases)

Asset data status	DMUs	EMUs
Quantity/ Measure	Moderate	Moderate
Age	Moderate	Moderate
Condition	Moderate	Moderate

Colour key: Reliable Moderate Uncertain

Note: Much asset data is held by KiwiRail and CAF which has not been entered into the AT databases. However, AT has good confidence in its investment decisions because condition surveys, performance-based contracts and local and operational knowledge is used to develop maintenance and renewals programmes.

## Level of service

Outcome:	Availability		
LOS statement:	Ensure fit for purpose units are available to the Operator at the required times		
Performance measure	Current Performance	Target Performance	Target Date
EMU - Percentage variance between scheduled journeys and actual journeys commenced	0.3%	0%	ongoing
DMU			

Outcome:	Reliability		
LOS statement:	Mean distance between service failures		
Performance measure	Current Performance	Target Performance	Target Date
EMU mean distance between service failures	25,000km	Currently 35,000km increasing to 60,000km over 2 years	2017
DMU mean distance between service failures	7,500km	8,000km	2016

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## Current (2015) backlog

Backlog: The financial value of assets in a “poor” or “very poor” condition. There is no backlog for EMUs as they are brand new

DMUs	\$12 million	There is a programme to refurbish 10 DMUs from 2016 to 2021, which will continue service to supplement the electric trains.
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## Strategic approach

Auckland Transport is committed to managing its rolling stock assets, to spending only what is required, using robust evidence-based methods, to prioritise renewals and to target its investments. This helps to ensure works activities adhere to the key principles of:

- The right treatments
- In the right places
- At the right times
- For the right costs

Auckland Transport (AT) entered into a supply and 12-year maintenance contract with Construcciones y Auxiliar de Ferrocarriles (CAF). The CAF contract covers the complete, outcome-based maintenance and renewals of the EMU fleet. This contract is subject to extension.

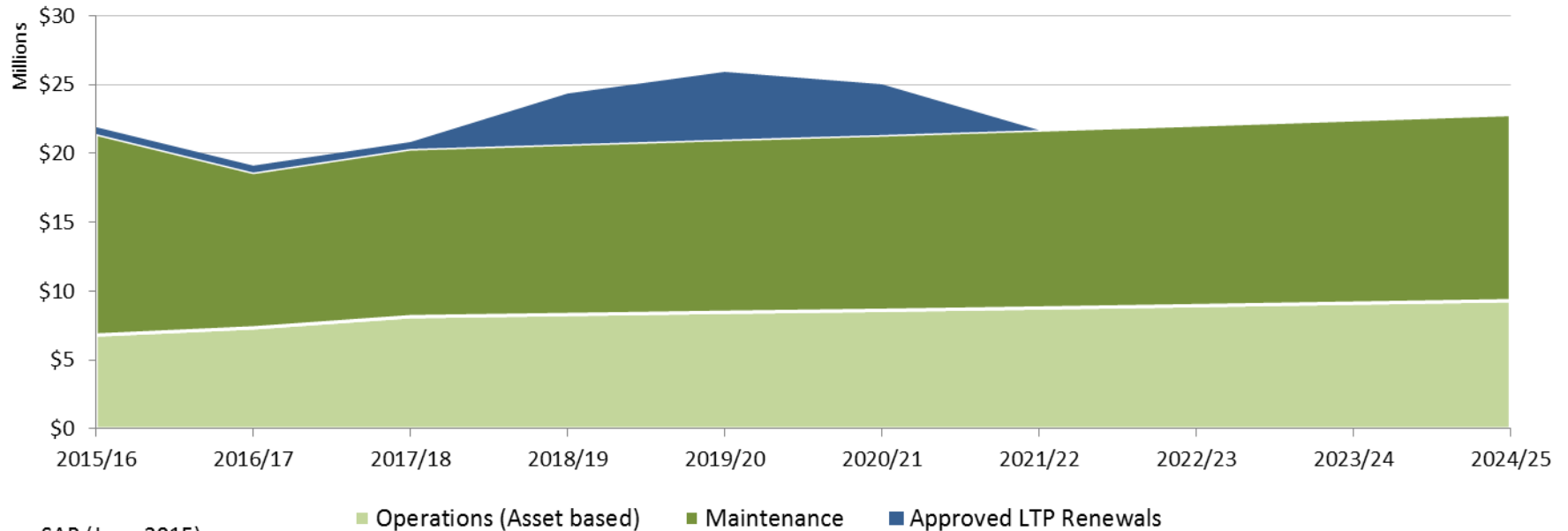
Under the CAF contract, condition assessments are regularly made on rolling stock assets for maintenance and forward works programming purposes. Assets are assessed, prioritised on severity and programmed for maintenance or renewal. Refer Appendix B for further details.

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## Renewal and Maintenance Costs (\$M)

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	10-year total
Approved LTP Renewals (uninflated)		\$0.5	\$0.5	\$0.5	\$3.7	\$4.9	\$3.7	\$0.0	\$0.0	\$0.0	\$0.0	\$13.8
Renewal Investment Needs (uninflated)		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Renewal shortfall		\$0.5	\$0.0	\$0.5	\$3.7	\$4.9	\$3.7	\$0.0	\$0.0	\$0.0	\$0.0	\$13.3
Maintenance		\$14.6	\$11.3	\$12.2	\$12.4	\$12.5	\$12.7	\$12.9	\$13.1	\$13.3	\$13.5	\$128.6
Operations (Asset based)		\$6.8	\$7.3	\$8.1	\$8.3	\$8.5	\$8.6	\$8.8	\$8.9	\$9.1	\$9.3	\$83.8
Consequential OPEX shortfall		\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Depreciation	\$13.8	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0

10-year Rolling Stock Financial Forecast



Source: SAP (June 2015)

■ Operations (Asset based) ■ Maintenance ■ Approved LTP Renewals

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## Consequences if asset needs cannot be afforded

- Infrastructure failure leading to potential safety risks
- More expensive emergency reactive works
- Cancellations and delay to the public transport network, including users.
- Decrease in network efficiency of the public transport system.

## Key issues

Issue	Recommendation
Some aspects of asset ownership and management responsibilities of both the EMU and DMU rolling stock assets are unclear.	Identify roles and responsibilities between AT Asset Management and AT Metro teams, CAF and KiwiRail. Develop guidelines.
There is lack of certainty in the completeness and accuracy of rolling stock data in AT's inventory database.	Review the completeness and accuracy of rolling stock data in AT's inventory database. Implement data improvement strategies as required
Damage to rolling stock assets due to accidents and vandalism	Liaise with New Zealand Police to minimise vandalism and theft  Anti-graffiti paint used to make cleaning and removal of graffiti easier. Anti-scratch film used to protect glass.
Decision still pending regarding the refurbishment needs of the remaining DMUs running between Papakura and Pukekohe. Need to decide whether to undertake a 10-year or 25-year life extension. The draft LTP renewal budget allows for a 10-year life refurbishment.	Presenting the Board with the two scenarios and doing a cost benefit analysis of when to electrifying the line between Papakura and Pukekohe.