eValuate

Asset Management Case Study

+ Major University Asset Life Cycle Replacement (ALCR) Program

Introduction

Airmaster's eValuate Asset Management Software has played a crucial role in addressing the complex challenges faced by a key client in executing their Annual Lifecycle Replacement (ALCR) program.

Project Overview

Our client is an international university of technology, design, and enterprise, providing tertiary education to more than 75,000 students, with multiple campuses in Victoria, Australia, and representation in Vietnam. The university required an efficient solution to manage its Annual Lifecycle Replacement (ALCR) program – an annually run package of works encompassing the replacement of mechanical, electrical, fire, hydraulic and miscellaneous infrastructure assets across three campuses.

This program operated via two annual packages:

1. Low Design 'Like for Like' Replacement
   Involving the replacement of assets with similar specifications

2. High Design 'Design and Construct'
   Replacement Incorporating assets requiring comprehensive design and construction.

Objectives

The program aimed to achieve a number of key objectives, including enhancement of the staff and student experience by proactively reducing asset failure risks during critical teaching and research periods, providing information in relation to reactive maintenance expenses, reducing operational energy costs, aligning with the university's 'Carbon Management Plan' through energy efficiency, capitalising on economies of scale due to the extensive asset portfolio, and improving Occupational Health and Safety (OHS) compliance.

Key Challenges

Several challenges were overcome during the successful completion of the ALCR program including the management of complex design and construct packages, navigation of large-scale campuses in central city locations, minimisation of operational disruptions, upholding effective stakeholder engagement, overseeing a substantial asset portfolio within tight schedules and operating seamlessly within live campus environments.

eValuate asset Data

The success of the ALCR program was heavily reliant on the eValuate Asset database, a repository of knowledge driving asset management decisions. The eValuate database is regularly updated by the site team to capture the addition or decommission of assets and efficiently manages the status of 35,000 assets with a uniform data structure, providing significant efficiency gains by streamlining the identification of candidate assets for replacement and facilitating design, scope, and tendering stages.
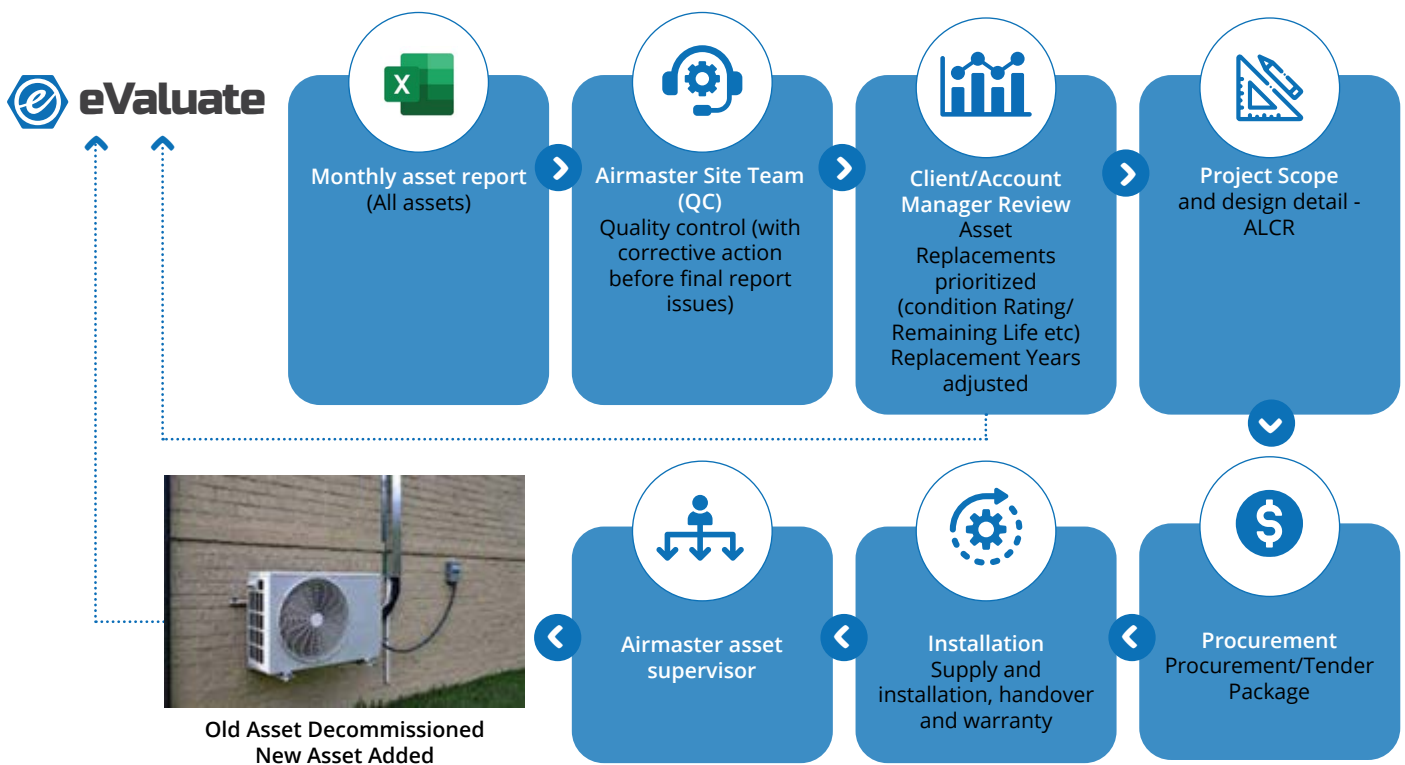
Overview of Assets by Asset Group

HVAC 14,086
ELEC 3239
HYDR 3686
FIRE 10,618
VERTICLE TRANSPORT 260
OTHER 2023
BMS 373

Portfolio Profile

2 Countries	**7** Campuses	**150** Sites/ Locations	**7** Services Disciplines	**242** Asset Types	**34,425** Assets Managed	**23,057** Asset in Use
1,003 Under review	**6,302** Decommissioned assets	**11,000** Asset data updates	**166** Assets under warranty	**>$60M** 5 year budget for asset replacements	**1,497** Assets not in contract	**4,982** Assets with remaining life <1 year

Asset Review Process

eValuate

Monthly asset report (All assets)

Airmaster Site Team (QC) Quality control (with corrective action before final report issues)

Client/Account Manager Review Asset Replacements prioritized (condition Rating/ Remaining Life etc) Replacement Years adjusted

Project Scope and design detail - ALCR

Airmaster asset supervisor

Installation Supply and installation, handover and warranty

Procurement Procurement/Tender Package

Old Asset Decommissioned New Asset Added

Results

The software, along with its review process, facilitated the evaluation of thousands of assets and the creation of a short list of potential replacements for 2023.

Beyond tackling complex challenges, the software played a pivotal role in reducing costs, enhancing operational efficiency, and promoting sustainability. This is in line with the university's commitment to delivering a seamless educational experience while prioritising safety and environmental responsibility.

The 2023 Asset Lifecycle Replacement (ALCR) program has transitioned into a project aimed at replacing several hundred assets in 2024.

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