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CASE STUDY

Green Cooling Delivers Major Savings for Local Government Data Centre

Introduction

A UK local authority faced rising costs and strict carbon reduction goals for its main data centre. Traditional DX CRAC units were proving expensive and energy-hungry, prompting the move to modern, sustainable cooling strategies.

Challenge

The main challenge was to reduce energy costs and support ambitious carbon reduction goals while maintaining reliable data centre operation.

Solution: Free Air Cooling Upgrade

The chosen answer was an innovative 'Free Air Cooling' solution, with two evaporative systems and two powerful extract fans installed. For cold months, attemperation sections were fitted to balance warm and cold air, ensuring equipment receives steady, ideal-temperature airflow throughout the year. Automated control panels fully integrate with existing cooling units for reliable, hands-off operation.

System Features

The system features two evaporative coolers, two large extract fans, automated control panels, and attemperation sections for consistent year-round cooling. Seamless integration with legacy cooling units ensures smooth operation with easy management.

Results

Payback from the upgrade is fast—projected at less than 18 months. The system is already delivering a reported annual saving of thousands of pounds, giving a big boost to the authority's ongoing carbon reduction drive. Ongoing running and maintenance costs are now much lower compared to conventional systems, making this approach both eco-friendly and financially smart.

Project Delivery

The upgrade was delivered with integration to existing data centre systems, resulting in minimal disruption and consistent improvement in performance.

Conclusion

This case shows how sustainable cooling technology can help organisations achieve cost savings and meet tough environmental targets, without sacrificing data centre reliability.