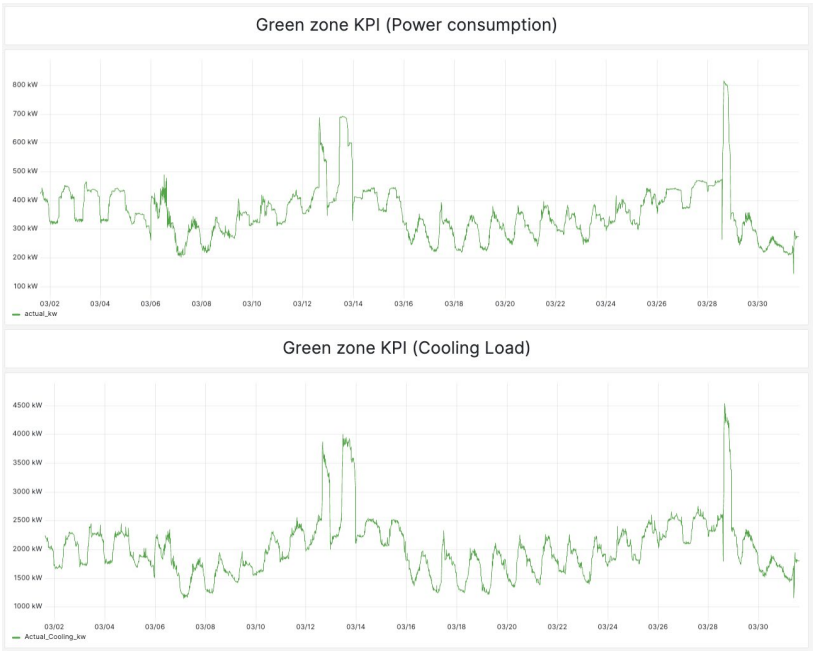
Innovative Approaches for Sustainable Campus

CityUHK is spearheading several initiatives to enhance energy efficiency in its buildings, focusing on modern technological applications and comprehensive monitoring strategies.

Predictive Maintenance to Chiller Plants

Predictive maintenance is applied to chiller plants. Maintenance and replacement of system components are based on key performance indicators (KPIs) rather than the number of years in service. This approach ensures that resources are allocated appropriately.



Continuous Energy Monitoring Systems

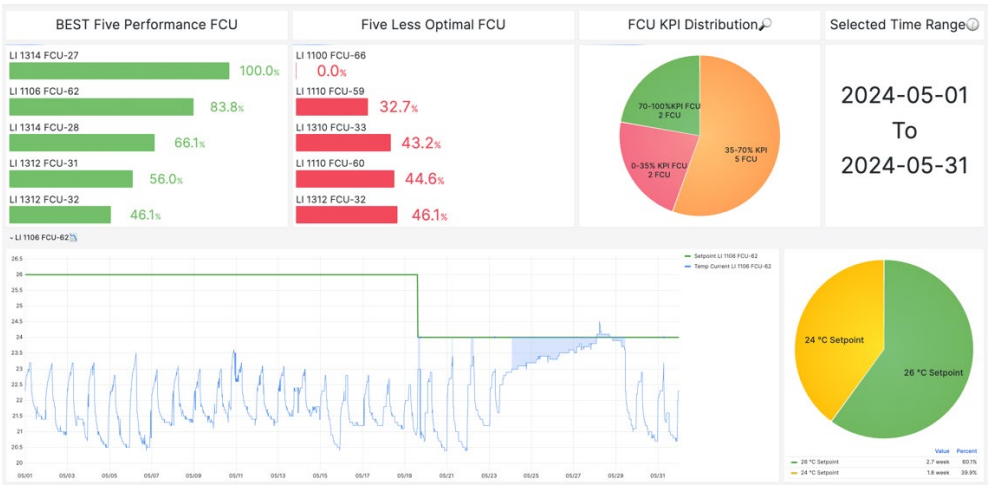
By using continuous energy monitoring through power monitoring systems, the university can track real-time energy consumption, identify inefficiencies, and optimize performance. Monthly data analysis provides maintenance recommendations, ensuring that efficient equipment is in place.

Upgrading Air Handling Units

CityUHK has been upgrading the air handling units (AHUs) with electronically commutated (EC) motor fans. This initiative forms part of a comprehensive strategy aimed at reducing energy consumption and improving operational efficiency.

Implementing IoT Technology

Web-based Building Management Systems (BMS) and Internet of Things (IoT) technology enhance the flexibility of managing lighting and air conditioning systems through various IoT sensors, including motion sensors. The installation of IoT Fan Coil Unit (FCU) controllers allows for schedule control, temperature reset, and adaptive control. This approach has demonstrated a pay-back period of less than two years, making it a cost-effective solution for energy management.



Summary

Overall, these efforts highlight CityUHK's comprehensive approach to improving energy performance and reducing energy consumption across its buildings. By adopting sustainable and environmentally friendly

practices, the university is setting an example for energy-efficient building management.