



Bespoke Building Management Systems



Case Study: Northampton General Hospital De-carbonisation Project – Central ASHP & PHE

Environment

Northampton General Hospital is a district general hospital serving Northampton. It is managed by the Northampton General Hospital NHS Trust. The hospital has 700 beds and has several services both clinical and non-clinical, including A&E, Paediatric A&E, Cancer Services, Theatres, Maternity, as well as staff accommodation.

Identification

Northampton General Hospital (NGH) secured a £20.6 million Government grant to replace their gas-powered steam heating system with more renewable energy sources. The grant is part of its public sector decarbonisation schemes, which aims to reduce emissions from public sector buildings by 75% by 2037.

As part of these works, the BMS system required upgrading and systems optimised to ensure efficiency. The project also included further energy efficiency measures such as roof-mounted solar panels, LED lighting, insulation and more efficient motors and fans used in hospital heating and ventilation systems.

Key Statistics

- **Contact Value**
£177k
- **Job Duration**
4 Months
- **Location**
Northampton
- **System Type**
Trend
- **Sector**
Healthcare
- **Job Type**
Optimise
- **Client**
NHS Trust



Solution

As part of the upgrades and decarbonisation project a centralised ASHP replaced the steam generation plant within the energy centre. From here, the heat was then distributed to plate heat exchanger plantrooms.

The BMS element of the works was the optimisation of existing control strategies to include modifications to plant which also included the revision of system setpoints, changes to occupancy schedules and related optimiser control settings, the revision of existing heating economy control, the delivery of new heating economy control, and the delivery of new night setback strategies

The scheme also included a central weather station which measured the ambient temperature and communicated that temperature across the BMS network to the new compensated heating and temperature cut-off strategies.



AES Control Systems at a glance

£250m

BMS Projects
Delivered

40+

Years in
business

3,000+

Control panels
built inhouse

15,000+

Control panels
serviced

5,000+

BMS controllers
upgraded

900+

Combined years
staff experience

Conclusion

The project at Northampton General Hospital focused on decarbonisation and efficiency by upgrading to a more reliable, efficient centrally-fed heating system. Integrated with the BMS, it provided end-users greater visibility and confidence in the system's performance while aligning with sustainability goals.

Get in touch

We are an independent, privately owned, leading Building Management Systems (BMS) company that has been a leading installer, manufacturer and servicer of HVAC controls and smart building systems for decades.

To find out more about our services, visit www.aescontrols.co.uk or call us on 01604 790606.