

SMALL/MEDIUM DISTRICT HEATING CONTROLS

OVERVIEW

- Existing, undocumented plant room control system not working.
- Plant room items all on manual – highly inefficient!
- Existing controls reverse engineered.
- New Siemens PXC4 fitted in existing panel
- Full control of plant room including biomass control via buffer tank
- MODBUS integration of key items
- System online with IOT for remote monitoring and optimisation

EXISTING SYSTEM

Existing main plant room control system wasn't working, had a number of poorly considered wiring alterations and wasn't documented. All items of equipment in the plant room were on manual control leading to very poor efficiency and significant performance issues. The existing system had no remote connectivity for monitoring or fault alarms and key system parameters couldn't be changed.

SOLUTIONS

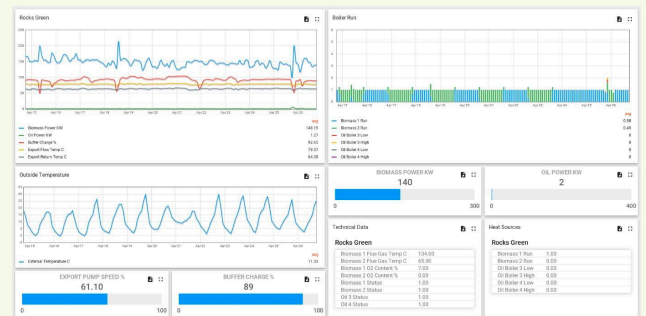
HVA Systems reverse engineered the existing control panel (leaving the existing system in place saved significantly on cost) and rectified a number of issues including reversing the poorly considered panel modifications. The existing PLC was removed and replaced with a Siemens PXC4 controller and 7" touch panel display. HVA Systems fully programmed and tested the unit offsite and installed without the loss of heat to the network.

The new controls were connected to HVA Systems' Ventana - an IOT cloud based data gathering and analysis platform. Bespoke graphs were configured to suit the site and provide practically real time analysis (5 minute polling intervals). Data storage is limited to external storage capacity so years worth of data storage possible rather than the typical 1,000 datapoints from controls platforms. Web browser access to the platform is quick and enables the system to be accessed remotely.



RESULT

Substantial improvements in both efficiency and reliability of the existing plant room from the implementation of new controls. Online connectivity enables proactive fault management rather than reacting after tenants are cold.



Dashboard system enables quick visual remote monitoring and data analysis for system improvement.

CONTACT

For further information on this case study or to find out how HVA Systems can help your organisation, please contact enquiries@hvasystems.co.uk or call **0771 3628116**.