



No heating dramas following heat pump project at UWL

Drama Studio London, owned by the University of West London (UWL), has cut its energy use and carbon emissions by upgrading its heating system. A ground source heat pump has been installed by Finn Geotherm.

Based in a three-storey Edwardian building, the Drama Studio London comprises large rooms for study and rehearsals as well as a fully equipped theatre. Having previously been heated by electric storage heaters, UWL needed a solution to improve energy efficiency, reduce carbon emissions and lower energy bills as part of its decarbonisation strategy. Finn Geotherm was appointed by UWL's main contractor, Ameresco, with the project funded by the UK Government's Public Sector Decarbonisation Scheme (PSDS) Phase 1.

Having conducted a full site survey and heat loss analysis, Finn Geotherm specified and installed a 90kW ground source heat pump, linked to a 1,500 litre thermal store. The heat pump is fed by seven boreholes, each drilled to a depth of 180 metres within the small on-site car park whilst taking great care not to undermine the property's foundations. To avoid taking up valuable internal space, a dedicated plant room was created externally using a compact container unit.

As the Drama Studio London had previously been heated by electric storage heaters, Finn Geotherm installed all primary pipework for heating and hot water, as well as radiators in each of the teaching and rehearsal rooms

to ensure consistent heat distribution throughout the building. Two hot water tanks were added to feed showers across two floors using hot water generated by the heat pump. An air handling unit was also installed within the basement to provide both heating and air circulation for the theatre.

The entire project was undertaken by Finn Geotherm during the short six-week summer holiday period, enabling students to return to comfortable heated classrooms for the winter term. The ground source heat pump has generated energy savings of over 51,900 kWh compared to the electric storage heaters.

Claire Willitts, director of property services at University of West London, said: "The project has been very successful and demonstrates how new technologies can blend with older construction to make retrofit a genuinely sustainable option, without necessarily compromising heritage."

Guy Ransom, commercial director of Finn Geotherm, said: "We relished the challenge of this project, delivering a system which utilised every inch of space available at the drama studio – from using boreholes in the car park to creating an external plant room. The energy savings made by switching from electric storage heaters to ground source are substantial, not to mention the vastly improved heating which all students and staff can now benefit from."

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