

CASE STUDY

HALE HOUSE, HALE PARK, HAMPSHIRE, UNITED KINGDOM

BACKGROUND

Hale Park was built c.1715 by noted Baroque architect Thomas Archer (1668- 1743). Hale House (Grade I) listed stately home and wedding venue consists of c.100sqm of Drawing Rooms, and more than 500sqm of gardens and a church. The client wished to switch from oil fired heating and hot water to renewables.

CHALLENGES

Installation in a Grade I listed building was not convenient due to restricted space and access. Construction in the buildings would have lead to disruption to the homeowners and the business. Multiple independent buildings on the grounds required services (House, North and South wing).

SOLUTION

On-site consultation was carried out by GS Renewable consultation team. Our design team took into consideration the requirements and challenges faced by our client and designed a bespoke modular heat pump plant room. The modular plant room was assembled off-site and delivered on-site upon completion to reduce the disruption of running their business. The plant room was colour matched to RAL sample paint and sympathetically located on the grounds to blend into the background with the trees. It now powers our client's buildings with ground source energy for heating and hot water with cold water storage, filtration, pressurisation, solar thermal and planned Solar PV to follow.

RESULT

Monetary figures below are based on today's price. The carbon reduction / year is 110 tonnes with a primary energy use reduction of 428MWh / year. By installing our bespoke modular heat pump plant room it had resulted in a 66% reduction in operating cost, it now costs our client an operating cost of £11,785 / annum. It would have cost our client £34,775 / annum to operate with oil. We expect the savings to double upon project completion. This project was shortlisted for the European Heat Pump Awards and attained Highly Commended status at the Heat Pump Awards in UK.

AT A GLANCE

Challenges

- Space restrictions due to Grade I listed building.
- Minimal Disruption Required.
- Independent Buildings. (House, N and S Wing)

Results

- Savings: £22,900 / annum
- Savings(%): 66% / annum
- Shortlisted for European Heat Pump Awards (EHPA)
- Highly Commended status Heat Pump Awards UK

PLANT ROOM DESIGN:
GS RENEWABLE UK

ASSEMBLE:
GS RENEWABLE UK

PROJECT MANAGEMENT:
GS RENEWABLE UK

PLANT ROOM DELIVERY (TO SITE):
ALLEN HAULAGE

PLANT ROOM COMMISSIONING:
GS RENEWABLE UK

EQUIPMENT SUPPLIED BY:
VIESSMANN, REFRA, WILO