

Customer Requirement



Albion Towers soars above the City of Salford and is a shining example of a successful modernisation project initiated by Salix Homes. In the heart of the city centre, Albion Towers is a 1970's seventeen storey tower block over 46 meters in height.

Salix Homes requested a new system which reduced CO₂ and fuel bills to the resident.

They also requested funding towards the installation, which Ground Heat was happy to provide in the form of RHI funding.

Existing radiators had to be renewed to account for lower run temperatures and simple to use controls were paramount. The existing gas system was removed in favour of an innovative renewable system, transforming it from the ordinary to the extraordinary. With breath taking views of Manchester City Centre, it now soars above the mundane concrete buildings as a symbol of the future of social housing.

Specifying the Solution

Ground Heat has worked with Heliotherm, Austria to develop the bespoke 1 to 6 kw inverter driven ground source heat pump specifically designed to replace the traditional gas boiler in small apartments. The Heliotherm SMS has PV and DSR compatibility and an RHI calorific and electrical consumption meter built within the unit. This data can be collated online through the Heliotherm/Ground Heat portal for recording periodic data. The Heliotherm SMS has a data bank recording all parameters for up to three years. A new Comms circuit has been fitted to each apartment for individual GSHP connectivity. Our system allows the aggregator to drop the consumption to each unit by 70% within a 5 sec command making it the perfect partner for DSR.



A bespoke casing has been designed locally to encapsulate the unit and complete the design.

Bore Field



The bore field consists of 14 x 183m deep x 153mm bore holes using the highly innovative Ryan coaxial system imported from the United States. This system provides the source supply to the 100 heat pumps installed in apartments. Bore holes were positioned within the rear parking area delivering a system that limits disruption to residents. Others quoted up to 60 bore holes for the same project using fixed speed compressors.

From other similar projects Ground Heat has discovered that having the ability to size each GSHP to the heat load requirement for each apartment reduces the strain on the bore field

Brine Distribution System

The basement plant room houses the riser distribution system to four individual risers, each riser independently controlled. Pump sets are fitted within the basement central plant room which are fed from the landlord's supply. Ground Heat chose to move away from using plastic fusion pipe work for its bespoke riser systems and used stainless steel for Albion to give assurance to the landlord surrounding fire stopping and pipe work integrity in tower blocks.

New Stelrad radiators were fitted to each apartment with a design run temperature of 45 degrees at peak times to improve energy efficiency. Each heat pump is fitted with remote access allowing our engineers to continually monitor and alter all parameters to ensure maximum efficiency. All access is password protected.

Bespoke WH unvented 120 litre hot water cylinders were fitted in existing cylinder cupboards served by existing pipe work.



Consideration for Energy and Environment



The residents at Albion Tower had gas combination boilers fitted to each apartment with panel radiators to each room. Their existing gas bills were in the region of £300-400 per year. Our new system can expect fuel bills in the region of £150-300/yr. The CO₂ save for the block is 2.9 tonnes per year

Financial Benefits

The Non Domestic RHI returns in the region of £800,000 to the landlord. The residents will see a fuel save of up to 20% to that of their existing gas costs. Ground Heat offers a twenty year parts and labour guarantee to all units



Customer Satisfaction



We have had excellent feedback from residents regarding the installation of the systems into apartments. We go out of our way to provide a friendly and efficient service. Our engineers have received thank you notes and even flowers for their efforts in causing a minimum of disruption to residents and keeping the apartments spotless.

Built to Last

Ground Heat shall give an optional 20 year parts and labour warranty on all units and provide a 365 day monitoring service. This gives the client a fixed service and repairs cost for the lifetime of the product. Should we note any resident using their system inefficiently then we can call, email or text to ask if we can assist.

