



## London apartments leading the way in renewable energy, affordability and comfort!



Oakhill Park

Oakhill Park has achieved a Code 4 rating for Sustainable Homes, the highest level locally for a new development in terms of reducing energy needs while producing 44% less CO<sub>2</sub> than gas.

# Oakhill Park apartments

## Oakhill Park apartments

Oakhill Park is a luxurious property from the moment you walk through the door. Complete with concierge services, underground parking, private resident's gym with state-of-the-art equipment and picturesque gardens, providing space for tranquillity and relaxation.

With its stylish design, exceptional construction and outstanding facilities, Oakhill Park is an impressive and desirable residence for those wanting the perfect city dwelling. Its luxury apartments with their generous layouts and high level of specification, have all been designed with great attention to detail.

The apartments are located in Putney, in South West London just 5 miles from the heart of London, close to the River Thames. Its proximity to the river allows for a variety of outdoor activities, whether on the water, along the tow-path or in the nearby sports clubs. Its variety of restaurants, bars and cafes make Putney a popular destination for socialising while Kings Road, Chelsea and the glamorous Knightsbridge are just a short distance away, making it an ideal location for the discerning shopper.

## Making Ground Source Heat Pumps affordable

Ashgrove Energy designed an innovative energy solution for Oakhill Park in London. Three 42kW Thermia Robust Ground Source Heat Pumps provide all the heating, through the underfloor heating system, and hot water requirements for the 60 apartments. The system will provide heating and hot water to each apartment cheaper than a gas system and with a 44% reduction in CO<sub>2</sub>. The combination of the heat pump technology, recovering waste energy and back up gas boiler system allows for the perfect balance between capital investment and both energy and financial savings. Many similar projects are now endeavouring to reduce the



Reception hall

*'This is a very unique system design using the mature knowledge accumulated in the Nordic region, where air/ground source heating and cooling have been the norm for decades. Using their proven philosophy we can use smaller capacity heat pump equipment, ensuring radically reduced capital outlay and payback periods. Carbon compliance was the initial challenge for this project, which could be easily achieved with ground source heat pumps provided the system was sized carefully. As the electricity grid rapidly decarbonises, heat pumps will deliver close to zero carbon heating in the very near future'*

Shane Murphy,  
Managing Director  
at Ashgrove Energy Ltd



Entrance to Oakhill Park

### Characteristics of the building

- Heated floor area: 5,200 m<sup>2</sup>
- Number of apartments: 60
- Heating and hot water demand: 156 MWh & 216 MWh

### Applied solution: Ground Source Heat Pumps

- 16 Boreholes, 150m deep
- 3 Thermia Robust Eco 42 kW with 5.000 litres hot water
- Production Hot Water > 80° C from 'de-superheater'
- Built-in BMS
- Gas boiler back-up
- Optional cooling function



Living Room



Bathroom

number of boreholes by recovering waste energy wherever possible from the building. Suitable sizing, energy recovery and the benefits from the RHI scheme result in a very attractive return on investment.

### Reduced environmental footprint

Thanks to the use of ground source heat pumps, a renewable energy source, the building is an excellent example of efficiency, energy saving and environmental sustainability. The local London regulations states that new buildings need to reduce CO<sub>2</sub> production by 35% lower than the 2013 UK Part L build-

ing regulations. The use of heat pumps in this heating system allows for this product to achieve and exceed these requirements. Our society is becoming increasingly aware of our environmental footprint and the influence of CO<sub>2</sub> emissions on it. Heat pumps are an increasingly renewable energy source and over the coming years they will produce 88% less CO<sub>2</sub> emissions than gas boilers.

### Thermia Robust Eco secure high energy efficiency

The new generation of Thermia Robust Eco heat pumps have been designed for commercial, residential and industri-

al applications (providing heating, cooling and domestic hot water production as well as energy recovery options).

The Robust Eco units have been specially designed for heating applications with a constant water temperature of 65°C (without supplementary heating) and a COP of up to 5.0. The new generation Robust Eco heat pumps have the latest 'hot gas' technology which allows for consistent, highly efficient hot water production at temperatures generally over 80°C during the heating season. This technology further improves the overall system's seasonal performance factor and lowers the system's running costs.



Thermia Robust ground source heat pumps



Domestic hot water calorifiers

- Project: 60 Apartments, 5,200m<sup>2</sup>
- Location: London, United Kingdom

- Solution: Thermia Robust ground source heat pumps
- Completion date: 2016

# Ashgrove Energy - Renewable energy solutions



Ashgrove has been at the forefront of Renewable Energy Technologies since 1994, providing economical, environmentally friendly, and reliable solutions, with several thousand commercial and domestic projects already completed. Our offices in the United Kingdom & Ireland offer turn-key solutions in design, tendering, project management and commissioning.

Our greatest resource is our 20 years of experience and the superior engineering capability of our technical support team in addition to our highly skilled network of Ashgrove Installer Partners all over the United Kingdom & Ireland.

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## Thermia – heat pump manufacturer with 40 years of experience



With more than 90 years of history and experience in the energy sector, Thermia Heat Pumps offer renewable energy solutions for any climate, anywhere in the world. All Thermia heat pumps are designed, manufactured and rigorously tested in Sweden where one of the harshest European climates can be found.

Ever since the beginning, the driving force behind our business has been the philosophy of our founder, Per Anderson: "The products one releases must not only be the best of their time, but before their time, over time".

At Thermia we are driven by this philosophy and our passion to deliver. For us every day is a new opportunity to create, build and serve a bigger purpose, for a greener and healthier planet, not only for ourselves but for everybody around us. Every challenge is Thermia's opportunity to make life a little more comfortable for our customers.

### Thermia Heat Pumps

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