

Tyram Lakes Resort



- HOTEL & RESORT -

TYRAM LAKES

Problem

GTE was tasked with designing a heating and hot water system for The Tyram Lakes Resort that focused on energy efficiency and sustainability. The site had very limited electrical and water supplies and it was crucial that the system would not have a negative impact on the local ecology.

Solution

GTE came up with an innovative solution of using the main lake as a heat source for the lodges, coupled with various (non-chemical) water filtration processes that further reduced energy consumption and eliminated the need for chemicals.

Phase 1 of the project comprises of: 2 custom build energy centers with bespoke Geyser Heat Pumps to provide all the heating and hot water requirements of the first 50 lodges, NEXT™ Scale Stop system (to remove the limescale issue and ensure the longevity of the equipment), NEXT™ Sand filter and NEXT™ Quantum Disinfection™ (cost-effective and ecologically sound) to ensure the quality of the water. Furthermore the heat pumps are powered using solar PV and an intelligent battery storage system.

As the height of the lodges alters throughout the course of the year, this had to be taken into account with the design of the pipework and the GTE system is believed to be one of the first 'floating' district heating systems in Europe.

The Result

GTE's innovative renewable heating system coupled with highly efficient and ecologically sound water solutions for Tyram Lakes Resort, will result in minimal running costs and environmental impact.

GTE's solution has saved significant capital investment by avoiding the need for traditional energy supplies to be introduced to the site.

Finally, the system is eligible for the Renewable Heat Incentive (RHI) and this will provide a very attractive payback to the development going forward.

tyramlakes.co.uk

100%
renewable energy solution

0 Litres
water waste

0 Chemicals
water treatment & hot tubs