

#### SUMMARY OF PROJECT:

MJS Energy were asked by Allan's Caravan and Holiday Park to design and install a renewable system to supply heating and hot water to their new state-of-the-art leisure facility at Aber Bay, consisting of a brand new luxury heated indoor swimming pool, lounge area, bar, restaurant, commercial kitchen and changing facilities.

MJS Energy sent an expert team of Engineers who looked at a number of options when carrying out a feasibility study.

The MJS Energy team soon discounted the option of using biomass due to the narrow coastal roads leading to the area, which would have created logistical issues when delivering fuel.

The next option was to consider air source heat pumps, however, while conducting the study although the units were more than capable, it soon became apparent that the positioning would have been an issue as outdoor space was limited.

A ground source heat pump system was also considered. However, it was decided that it was not the right option for this vast project, as the ground around the area is either covered with buildings or static caravans, creating a lack of usable ground to construct a horizontal loop for a ground source system. Also, the cost of a bore hole type solution had to be considered.

The team then concluded that the most efficient and cost-effective solution was to use the Bay's estuary as a source of energy for a water source heat pump.

As the site is a Site of Special Scientific Interest, MJS Energy worked closely with Natural Resources Wales to make sure that the works carried out had no negative impact on the environment.

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Due to the above considerations MJS Energy installed a 240 kWh Heliotherm water source heat pump which would supply heating, cooling and hot water.



#### **ABOUT US**

MJS Energy are a Midlands-based mechanical, plumbing and electrical design and installation company.

MJS Energy regularly carry out installations for other renewable energy companies throughout the UK, offering them access to an experienced team of installers, builders and groundworkers to assist with their project delivery if additional capacity is required.

KEY OUTCOMES: CO2 Reduction; The main benefit of providing heating and cooling for the development in this way is that it is a low-cost, low-carbon, scalable technology that can help accelerate the development to meet net zero carbon emissions. FINANCIAL BENEFITS:

Moving away from a volatile fossil fuel market.



#### RENEWABLE STORE











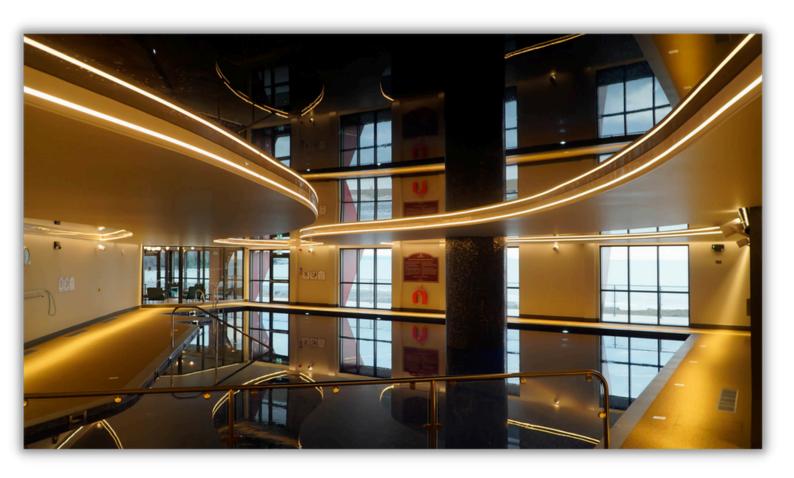












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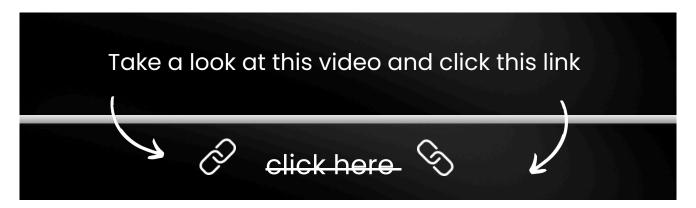












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