

## Case Study

### Enstone Manor, 65kW, Oxford

## The facts:

**Property Type:**  
Manor House- Retrofit

**Property size:**  
1600m<sup>2</sup>

**Product supplied:**  
Custom made models  
2 x 20kW and 1 x 25kW

Heating Only

**Application:**  
100% space heating  
within the property,  
complementing under-  
floor heating.

**Installation:**  
Lake water open loop  
system

**Cost Savings:**  
Considerable savings,  
final calculations to be  
confirmed

**Fuel Displaced:**  
Oil

**CO<sub>2</sub> Reduction :**  
30 tonnes a year  
estimated



#### Sensitive Renovation sources heating from cascade pond

The new owner of this period manor house was determined to use renewable energy for heating the property due to the considerable running cost savings achievable.

The sizeable plot available meant a perfect solution lay in creating a new, large pond which could be used as both a heat source and an aesthetic cascade pond.

Three of Kensa's customised plant room heat pumps were installed and commissioned by the clients' own plumbing contractor. Kensa also designed an open loop system to capture the flowing water energy in the pond.

A submersible pump was positioned in the pond to pump water directly to the heat pumps, where the energy is absorbed and upgraded to a higher temperature of about 35degC to provide a heat supply for the underfloor heating system, installed throughout. After leaving the pond and passing through the heat pumps, the water is then passed to an exotic new fountain and water feature, before draining back to the pond by gravity.



## £Grants

for details contact:

**Kensa Engineering Ltd**  
Mount Wellington  
Chacewater, Truro  
Cornwall, TR4 8RJ.  
Tel: 01392 826021/22  
Fax: 01872 862440

[info@kensaengineering.com](mailto:info@kensaengineering.com)  
[www.kensaengineering.com](http://www.kensaengineering.com)

Expertise | Service | Quality

## Project partners

**Warburton Building Services**  
Plumbing, heating and electrical  
engineers

**Vector Design**  
Building Services Consultants

