

# CASE STUDY



## Rose Acre, Cromer

### Description:

A renewable technology project aiming to reduce energy costs and carbon emissions on the existing dwelling and a new proposed extension.

### Renewable Technologies:

Several technologies were evaluated including solar hot water, a biomass wood pellet boiler, a Ground Sourced Heat Pump (GSHP), Air Sourced Heat Pump (ASHP), solar PV, a wind turbine and a liquid biofuel oil fired boiler.

### Study Outcomes:

After evaluation, it was concluded that an ASHP and GSHP were suitable for the extended property along with the biomass wood chip boiler and liquid biofuel option. The solar PV and solar thermal were also considered suitable for the site but a wind turbine was not recommended because of the close proximity of trees and other buildings.

Combined annual benefits of 1.6kWp solar PV, solar thermal, an 11kW ASHP and an 8kW GSHP

<u>Renewable Technologies</u>	<u>Financial Savings</u>	<u>Potential RHI/FIT Income</u>	<u>CO2 Emissions saved</u>
<u>1.6 kWp Solar PV</u>	£138.80	£573.24	597 kg
<u>Solar Thermal</u>	£852.18	£405.00	1,175 kg
<u>11kW ASHP</u>	£228.28	£1,575.00	2,962 kg
<u>8kW GSHP</u>	£320.18	£1,470.00	2,567 kg

***If you are interested in renewable energy technologies, want to know whether your site is suitable and how much energy & CO<sub>2</sub> emissions you could save contact our office on 01953 798112.***