



Wakelands Farmhouse is a two storey Grade II listed detached house on the Glyndebourne Estate in East Sussex. AMA carried out an energy options assessment to establish the impact of an energy efficiency refurbishment.

Client: Trustees of Glyndebourne Estate
Date: 2015

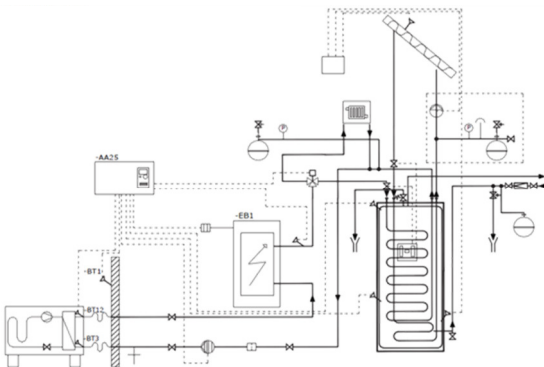
Main project challenges were the sensitivity of the listed part of the building, dating from 1830, and the remote rural location in the Sussex countryside with no existing connection to mains gas.

IES Virtual Environment 2015
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Project File: 1251 Glyndeb Wakelands.mlt
Sim File: 1251-3 new oil+solart.aps 15/Oct/2015
Weather File: LondonTRV05.dat
Sim File: 1251-3 heatpump+solart.aps 15/Oct/2015
Weather File: LondonTRV05.dat
Sim File: 1251-3 oil exist.aps 15/Oct/2015
Weather File: LondonTRV05.dat
Sim File: 1251-3 biomass+solart.aps 15/Oct/2015
Weather File: LondonTRV05.dat

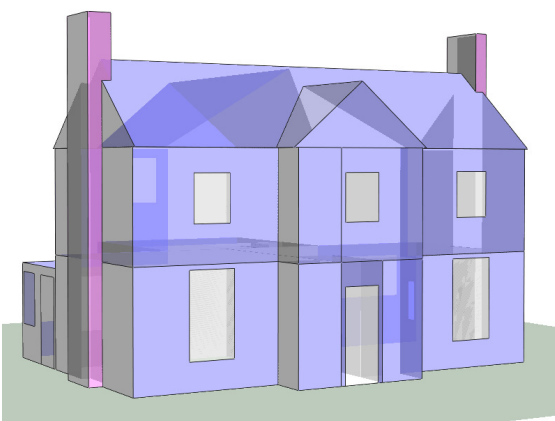
Date	1251-3 new oil+solart.aps	1251-3 heatpump+solart.aps	1251-3 oil exist.aps	1251-3 biomass+solart.aps
Jan 01-31	0.2544	0.0787	1.3168	0.2601
Feb 01-31	0.2398	0.0711	1.1994	0.2595
Mar 01-31	0.2544	0.0787	1.3168	0.2601
Apr 01-31	0.2482	0.0782	1.2743	0.2517
May 01-31	0.2544	0.0787	1.3168	0.2601
Jun 01-31	0.2482	0.0782	1.2743	0.2517
Jul 01-31	0.2544	0.0787	1.3168	0.2601
Aug 01-31	0.2544	0.0787	1.3168	0.2601
Sep 01-31	0.2482	0.0782	1.2743	0.2517
Oct 01-31	0.2544	0.0787	1.3168	0.2601
Nov 01-31	0.2482	0.0782	1.2743	0.2517
Dec 01-31	0.2544	0.0787	1.3168	0.2601
Summed total	2.9955	0.9272	15.5043	3.0628

AMA methodology included a site survey based thermal model and detailed energy simulation and analysis. Building fabric improvements to Part L and energy options were simulated to establish energy and CO₂e impact. Life Cycle Cost analysis was carried out to establish the financial feasibility of the potential systems.



Key points:

- Energy and emissions modelling of a listed building refurbishment
- Inclusion of low energy and renewable technologies for heating and hot water services
- Life Cycle Cost assessment of energy systems options



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