

Club morning meeting 9th March

A well-attended meeting for a very interesting presentation on heat pumps presented by Angus Steel, Energy Consultant for DAC Energy Solutions Ltd. Southampton.
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Overview

- Heat pumps are basically an air-conditioning unit in reverse.
- They are much less expensive to install than a ground source pump system.
- They take the heat out of the outside air temperature through the unit and return it close to freezing.
- Unlike a gas boiler system, they do need to be more accurately assessed for size and capacity.
- Unlike other systems, where a power input/output of 1/1 is aimed for, the heat pump is potentially much better with an input of 1 and output of 4 units of energy.
- The temperature of the outside air does naturally have an impact on the temperature of the heated water produced. Hence size and installation are more critical than with conventional systems. Ideally the total house energy efficiency is reviewed.
- A unit can be installed to a simple gas boiler system. To be effective the system needs to be set up and designed properly with extra pumps and controls to maximise the heat from the water. They are more suited to underfloor systems which run on a lower temperature. However, a boost recirculating pump system can raise the water temperature from 50 to 70 degrees F., which makes it similar to a conventional radiator system.

Summary

- The timing of this presentation was very appropriate with gas and energy prices increasing so much.
- A system installed and up and running correctly will be now far cheaper to run than other conventional systems.
- The initial set up costs are high but include reducing the overall carbon footprint of a home.
- The systems run for longer hours than a conventional boiler and produce about 50 db so are a noise generator but this is being worked on with new models.
- For some installations it might be more efficient to install two units or even keeping the conventional system linked in as a backup, when output does not meet demand in very cold periods.
- For some special applications the warm air produced can be recirculated to help increase the circulating water temperature.
- A grant incentive payment system is available which is changing in April from £10,000 to £5,000 but with other benefits!

I have asked Angus to send an e-brochure which I will circulate once received.

After a very full meeting, with many questions, Bryan Rickett gave the vote of thanks to Angus. Roger confirmed that **our meeting next Wednesday will be at the RBL at 7.30pm**, with a talk from Ian Carpenter 'My experiences in the Navy' -unsure if this will be censored!

KHC