Solar Assisted Heat Pump
Unique

We are the first company on the market with a viable product to retro-fit all existing cylinders, heating water up to 55 Degrees Celsius.

Over 30 years of engineering expertise going in to make one of the most advanced water heating system on the market.

Manufactured in our UK Factory.

Specifically tailored for the British climate (To ISO 9001 Standard).

More than 3000 Installations carried out throughout the UK.
In recent years, as UK North Sea production has fallen and imports doubled between 2007 and 2011.

The amount we spend on Qatari gas rose from less than £10m in 2005 when recent imports started to over £4bn today.

Issues in the Middle East can cause sudden jumps in the price of gas from Qatar.

Year on year bill-payers were again paying more to import Qatari gas than they were for gas from anywhere else.

This trend is set to continue with Centrica predicting UK gas imports will reach 70-80% by 2020. Many analysts believe the majority of this increase will come from Liquified Natural Gas via ships.
How much gas do we import?

2011 saw UK gas imports exceed production for the first time since 1967.
In the press

**Express**

**Sky News HD**

Energy Bills: SSE To Raise Tariffs By 8.2%

A leading figure in industry regulation calls for a "politically independent" inquiry into the market to restore trust.

5:31pm UK, Thursday 10 October 2013

**Daily Mirror**

**Sun**

Fuel Bills Will Kill

Poor to suffer after energy giant's announcing 8.2% price rise.

Power Scandal Deepens

After shock 8% rise, more fatcat energy firms are set to give two fingers to us all.

Upped Yours Britain!
### The marketplace

**Table showing advantages of Solar Assisted Heat Pumps over traditional Solar Thermal**

<table>
<thead>
<tr>
<th>Solar Assisted Heat Pump</th>
<th>Traditional Solar Thermal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Works day and night</td>
<td>Needs direct sunlight</td>
</tr>
<tr>
<td>Works down to -10°C</td>
<td>will not work at freezing</td>
</tr>
<tr>
<td>Provides most hot water requirements</td>
<td>Provides 30% of hot water requirements</td>
</tr>
<tr>
<td>Constantly heats water throughout day, night and all seasons, whenever you want</td>
<td>Heats water in summer and during height of the day, when its not needed</td>
</tr>
<tr>
<td>Panel can be fitted south, east or west facing even northeast and northwest</td>
<td>Panel needs to be south facing for maximum results</td>
</tr>
<tr>
<td>Panel is under 7kg</td>
<td>Heavy panels</td>
</tr>
<tr>
<td>Aluminum panel is very durable</td>
<td>Panels made up of fragile glass tubing</td>
</tr>
<tr>
<td>Can be fitted to a wall</td>
<td>installed on a roof</td>
</tr>
<tr>
<td>Both sides of the panel absorb energy</td>
<td>Smaller energy collection area</td>
</tr>
<tr>
<td>Sealed system with R143a gas</td>
<td>Requires Glycol top-up</td>
</tr>
<tr>
<td>Minimal maintenance</td>
<td>High maintenance</td>
</tr>
</tbody>
</table>
The concept

- A microwave sized Solar Assisted Heat Pump in a box powered by an external thermodynamic panel providing hot water in an existing cylinder

- Provides Hot Water Day and Night in all weathers 365 days a year

- It is a Fridge in reverse with proven reliability

- The panel can be installed on the wall, roof or even inside a loft if the property is listed
The Aluminum panel circulates the refrigerated liquid where energy is absorbed from the ambient temperature.

This transforms the liquid into a gas, which carries the heat energy to the little magic thermodynamic box.

The Little magic thermodynamic box compresses the gas which increases the temperature.

The spent gas reverts back to a liquid which flows back into the panel, allowing process to repeat.

Simultaneously, a water pump pulls cold water from the cylinder into the Little Magic thermodynamic Box.

This works as a heat exchanger which returns hot water to the cylinder.

This flow continues until the water in cylinder reaches 55°C.

Once this is achieved the system goes into standby.
How it works
The panel

- Only one panel required*
- Made of roll-bond aluminium
- Highly durable (no glass or glycol)
- Delivered nitrogen filled
- Absorbs energy from ambient air
- Also from sunlight, wind and rain
- Very light and easy to install
- Normally fitted to a wall (can fit to roof)
- Can be fitted to any aspect
- Panel is silent in operation

*two panels will be needed for larger cylinders
Running costs

450 watts

drawn when unit is running

Standard 4 person household requires 122/150 litres of hot water.*

Running for 4 hours a day (on/off) consumption is under 2kw per day

24p a day

*Energy Saving Trust
Features and benefits

- Care Free Installation
- Installed by fully Qualified Installation teams
- Full Installation in under 1 day
- Light aluminium panel
- Anti-Corrosion Protection
- No risk of freezing or over-heating
- Retro fits to existing cylinder
- 5 YEAR MANUFACTURERS GUARANTEE
- Works in sun wind, rain and at night
Features and benefits

- Hot Water both ‘Night’ & ‘Day’ up to 55°C
- Hot Water at a fraction of Gas or Electric system costs
- Hot Water in ALL weather conditions, down to -10°C
- Panel is usually fitted to any aspect of a property
- Installation – Within one day
- More efficient than ‘Traditional Solar Thermal’ panels
- Suitable for residential property or commercial premises
- Sizes available for small to large property types
- Significantly reduces carbon emissions
What happens next

**STEP ONE**
Assessor’s visit

**STEP TWO**
Surveyor’s visit

**STEP THREE**
Installation

**STEP FOUR**
Post inspection visit