

Home Energy Check-up Information Sheet

Issue Number 5	Subject / Source Reading Gas Meters	Date 08.20
-------------------	--	------------

Because energy costs are rising all the time it is difficult to make an annual comparison by recording just the cost.

For electricity this is easy as the bills show usage in kWh's, the amount of energy used in one hour. 1 kW equalling 1000 watts or 10 100 watt light bulbs on for one hour and a kW has the same energy value anywhere in the country.

For Gas the calculation is more complicated as we have to take into account the calorific value of the gas. This is a measurement of heat contained in the gas calculated by a formula used when seeing how quickly gas can heat up a measure of water. Unfortunately the calorific value of gas varies throughout the national gas grid according to the amount of moisture the gas contains and the suppliers have to regularly test the gas in different part of the grid to ensure the heating value of 100 cubic feet of gas is costed fairly where ever we live.

So because the calorific value of gas varies the formula used to convert 100 cubic feet of gas to kWh's will vary.

1. Calculate the 100's of cubic feet of gas used by taking readings off the meter. e.g. current reading less previous reading. Make sure the meter is recording cubic feet – some record cubic meters.
2. Multiply reading by 2.83 to convert to cubic meters.
3. Multiply by a conversion factor of 1.022640
4. Multiply by the calorific factor show on the gas bill
5. Finally divide by 3.6 to give kWh's.
6. A less accurate but easier calculation is as follows –
Cubic meters X's 11.45 = kWh's

As a rough check 100 cubic feet of gas is between 28 and 31 kWh

The consumer has to rely on the supplier to provide the correct calorific value and conversion figures.

So there you have it – see why we tend to rely just on the cost on the Bill!!!

P.S. Many gas bills now show this calorific conversion.

P.P.S. If requiring a reading from a smart meter press button No. 9 once to wake the display up. Further presses will show other information.

[Type text]

[Type text]