How to Measure your Energy

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Introduction

Measuring your organisations energy allows you to understand the current usage, check for and identify cost savings.

Energy meters are used to measure the amount of energy used by residential and commercial buildings, they are measured in kWh.

Monitoring & Measuring energy – *'if you don't measure it, you can't manage it!'*

There are three key things you can do to measure your organisations energy usage:

- Taking meter readings
- Benchmarking energy consumption
- Checking energy bills

Taking Meter Readings

Firstly you need to know where you meter is (if you don't you can phone the supplier and ask them) and how to read the meter. There are two types of meters Digital or Dial meters. Taking meter readings is the most accurate and reliable form of collecting energy usage data. There are two types of meters digital and dial.

Digital Meter

Your digital meter will display readings in one row of figures (single register) or two rows of figures (two registers). To read a single register digital meter write down the numbers shown from left to right. The top row records the off-peak electricity you use. The bottom row records the normal rate electricity you use. To take a reading, write down the numbers shown from left to right in both rows.

Dial Meter

If you have a dial meter your meter will comprises of six dials. These read from left to right. You only need to read the first five dials - starting with the 10,000kWh dial on the left and stopping after the 1 kWh dial. If the pointer on a dial falls between 9 and 0, reduce the reading already taken for the dial on the left by one.

Benchmark Energy Consumption

Establishing a monitoring system will allow your company to understand monthly energy usage and set targets for efficiency improvements. Start to read the energy meter weekly or monthly if safe to do so and record the data in a spreadsheet, this will make it easy to collate data into graphs. After a benchmark has been established the company can look at setting targets for reductions.

Checking Energy Bills

Checking your energy bill is a useful way to monitor consumption as well as ensuring charges are correct. Taking your own regular meter readings is also useful to highlight trends, spot any inconsistencies that may be due to leaks and help quantify any energy reduction measures that have been installed.

Bills usually detail the climate change levy, readings, date, price, units and value. Some bills will also give you a day and night tariff which shows energy consumption overnight, this is useful to see if electrical equipment has been left on. Look over your bill and identify the kWh used.

What to do with your bills?

- Take all your previous energy bills (over at least three years if possible) and group them together into individual years
- Identify the total kWh of energy used by your premises
- Calculate the Average Daily Usage (ADU).

The following information is useful when reading your bill:

- Energy bills can be used to estimate consumption and associated costs per day, month or year
- Using a spreadsheet is a good way to monitor and measure your companies electricity (and all utility) consumption.
- Having a detailed spreadsheet which details energy costs and meter readings keeps a record of costs associated with the usage
- Working out the average daily consumption, total annual cost and average daily cost would be useful to show the company the current situation.