



# UK SDA – Resources Monitoring & Management

Industry Briefing Note provided by  
Gusto Energy Monitoring & Management Systems (GEMMS)

... only by measuring the pattern of usage can the costs of energy and water consumption and critical production processes be managed and reduced ... for public-access buildings over 1000m<sup>2</sup>, the display of an energy performance certificate, and steps to reduce consumption, is a legal requirement ...

UK Sustainable Development Association

1<sup>st</sup> May 2009



## Meeting environmental legislation ...



The Buildings Energy Performance Directive (EPBD) came into force in 2003, aimed at promoting the energy performance of buildings within the EU, through cost-effective measures.

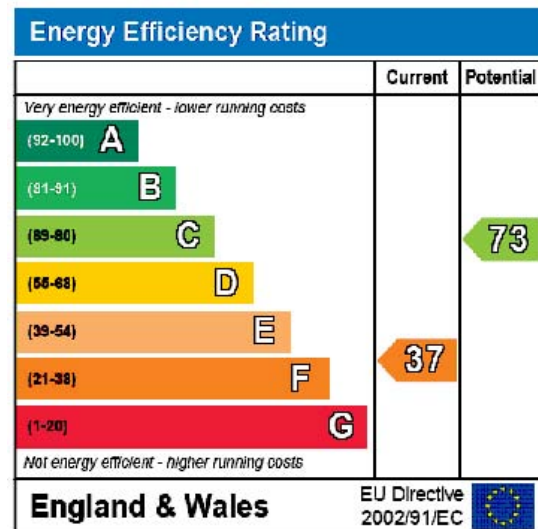
From October 2008, this legislation was given extra teeth, including the requirement for all public buildings over 1000m<sup>2</sup> to display an Energy Performance Certificate (EPC). The legislation also requires that reasonable provision be made, to monitor at least 90% of the annual consumption of each fuel being used.

An important aspect of the Energy Performance Certificates is that they are to be accompanied by recommendations for cost-effective energy-saving improvements to the building.

## measuring to manage & save ...

Only by measuring can costs and business processes be managed and improvements made. To do this effectively, each system is bespoke to the needs of the building(s) and activities concerned, but the general strategy is to sub-meter:

-  Buildings individually or across dispersed sites or multi-site operations
-  Individual boilers/CHP plants



- ✚ Chilling facilities
- ✚ Electric humidifiers
- ✚ Consumption at distribution board level, room level, or plant/appliance level

## data capture & presentation ...

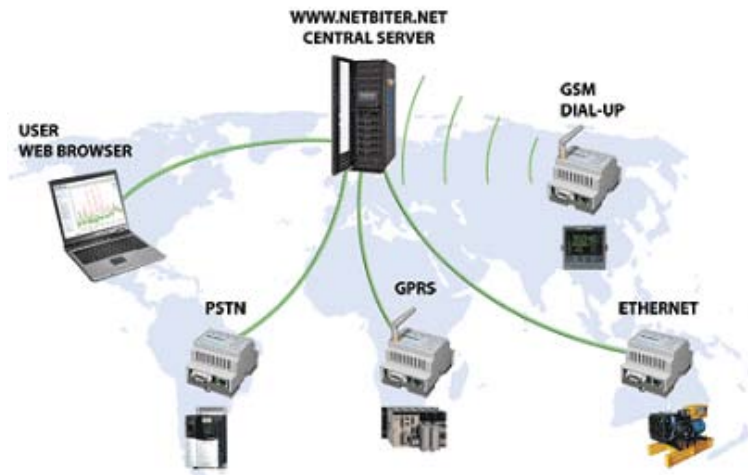
Data is usually captured, stored and backed-up on a suppliers IT infrastructure, but can managed on a stand-alone web server as part of the users own IT infrastructure. The key advantage of the internet-based solution is that data can be safely captured, analysed and inspected worldwide without interfering with company firewall arrangements.

Whether stand-alone or internet based, all critical data is logged, including critical parameters, alarms and load-shedding. This last feature alone can deliver substantial savings where, for example, an energy tariff is tied to a peak requirement.

At the server, authorised users can view and manage the information in the formats and display presentations they require. The only tool the user needs is a standard web browser, with the internet-based solution simplifying access across multi-site operations or from remote installations.

Each system is bespoke to the end-user's requirements; on-screen displays are also designed to meet the customer's specific needs, providing information such as:

- ✚ Demand & cost data, and tariff options
- ✚ Carbon data, for offset trading



## equipment used ...

All components are industrial grade, and not to be confused with the simpler devices sometimes used in domestic applications. Typically, systems will utilise sub-components such as:

- Multi-function electricity meters
- Industrial heat meters
- Industrial logic controllers
- Industrial pulse converters
- Current transformers
- Data capture & processing modems
- Other sensors and probes as required to meet the customer's needs

Usually meters and sensors are connected to the data capture and processing modems by hard wiring, utilising existing cable runs. Where necessary, industrial grade radio modems are used to transport the data, making dispersed sites quicker and easier to connect.

## Further information ...

Further information on this technology may be obtained from UK-SDA member company Gusto Energy Monitoring & Management Systems (ring 01636-894900 or see [www.gemmsystems.co.uk](http://www.gemmsystems.co.uk))

