businesslink

Gas Networks Ireland

Building Energy Management System (BEMS) **Customer Repeat Information** Pack

The purpose of the customer repeat is to provide the facility for a customer to link their gas use to their Building Energy Management System (BEMS). Most Gas Network Ireland (GNI) gas meters have the facility for a low frequency, volt free, discrete repeat signal. This signal can be corrected or uncorrected depending on the customer usage, customers with an estimated annual consumption (EAC) in excess of 3 GWHrs per annum will by default have a corrected meter read.

What is a BEMS?

A BEMS or Building Energy Management System is a system which provides a facility or company with visibility of their energy use. A BEMS can be utilised for many applications, some of the main ones being:

- Real time energy monitoring & trending of consumption
- Energy forecasting
- Energy verification
- Energy recording

A BEMS uses software to graphically or numerically trend or record data. The main benefits of a BEMS are cost savings and energy conservation.

The Meter

A BEMS compatible meter will emit a low frequency, volt free, discrete output. The frequency of this discrete pulse in dependant on the meter size however they are typically in tenths per meter cubed (ie. 0.1, 1, 10, 100 or 1000 pulses per cubic square meter of gas).

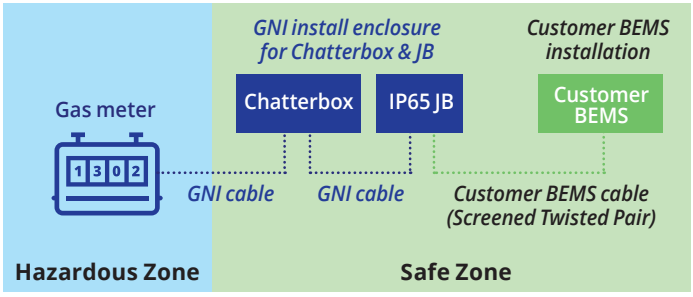
On receipt of an application for a customer repeat and before the customer pays the standing charge, GNI will conduct a survey of the meter and the associated installation to ascertain if the meter is BEMS compatible. Some older meters will not have the facility for a customer repeat and will be replaced at GNI's expense. At this point the GNI technician can also advise the customer of the location of their BEMS connection point.

Once the meter has been deemed as BEMS compatible, Businesslink will issue the customer with an invoice for the connection of a customer repeat.

The Customer Repeat Signal

To ensure a safe connection between the customer's assets and GNI's assets, intrinsically safe isolation must be maintained. A unit called a Chatterbox is used to create the isolation between the two systems.

The chatterbox is powered by two 3.6 volt lithium batteries, which have a potential working life of up to 10 years. The output from the Chatterbox is opto-isolated with a pulse width of 220 ms capable of accepting 20 V and a maximum load current of 130 mA.



Customer Requirements

GNI will leave a set of terminals within an IP65 junction box adjacent to the Chatterbox which the customer connects their BEMS cable to. The exact location of this will have been determined during the initial survey of the installation.

GNI recommend that the customer uses a screened twisted pair cable. The BEMS repeat signal is of small power and is susceptible to interference from electromagnet noise, this can lead to false readings on the customer side. This type of cable reduces this potential interference.

Maintenance

GNI do not perform routine maintenance on the Chatterbox unit. If the customer does experience issues with the unit a call should be made to Businesslink and a technician will be dispatched to investigate the issue.

For further information call us at **1800 411 511**
or email **businesslink@gasnetworks.ie**

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