

The EURIDIS automatic meter reading : A pragmatic and reliable solution to cope with meter inaccessibility and exact billing

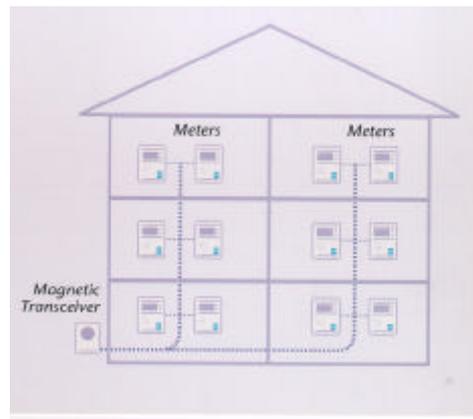
The reading of energy meters for residential customers is one of the main tasks of a distributor. In many cases, the meters are not easily accessible and their reading may disturb the customers. Besides, manual readings can cause entry errors and a high cost due to time reading.

Introduced at the beginning of the 1990's, the EURIDIS technology is an efficient and low cost solution and is now well proven in many countries including France, Spain, Brazil, ...

The EURIDIS protocol is also standardized by IEC (IEC 62 056-31) which guarantees openness and interoperability between different manufacturers' equipment.

The EURIDIS Meter Reading

By using a magnetic coupler and a handheld terminal, meters connected to the Euridis bus can be read at a point which is accessible from the public domain. Such a solution offers indisputable time savings since 100 meters can be read in 5 minutes.



With the spread of electronic meters, EURIDIS has expanded very rapidly all over the world. Nowadays, more than 7 millions of devices communicating are installed all over the world including for instance the following countries : Algeria, Brazil, France, Spain, Morocco, Norway, ...

You could read below some reports about the experience of 3 different electric companies in France and Spain.

The EDF 10 years experience : a strategy profitable in time

Electricité de France (EDF) was the first electric company who launched the EURIDIS automatic meter reading, first in 1990 for the market of small businesses and then in 1993 for residential customers. Little by little, EDF has systematically changed its electromechanical meters by electronical ones integrating the EURIDIS communication software for remote reading and programming.

The EDF strategy facing the Euridis telemetry deployment is not the same for all his customers:

- For the market of businesses and small industries (called « Yellow Tariff »), more than 50% of meters are now electronic, representing 120000 meters in all the French territory. All these electronic meters are connected to an EURIDIS bus for the setting of their parameters. 54% of them are monthly read by EURIDIS telereport system, the remaining part is directly read by using the own customer phone line.
- For the 30 millions domestic customers (called « Blue Tariff »), nearly 6 millions are now electronic, substituting electromechanical devices at a rythm of 1 million per year. EURIDIS is always used in new housing, as well in buildings as in indivual houses, because the laying of the EURIDIS bus is easy to do and with a very low cost.



A technical operator using the specific laptop for the meter reading by EURIDIS

In both cases, the EURIDIS technology presents the advantages of the rapidity and the reliability of the reading. With EURIDIS, no more reading errors or incoherent data. A specific attention must be made about the installing phase, when all the meters are fixed and connected to the EURIDIS bus. Once the connecting system is well approved, the meter is sure to be correctly read. The field operators greatly appreciate also not to have to disturb anymore the customer for the reading of his energy indexes. Finally, let's note that the EURIDIS system is useful also to program and configurate all the parameters of the meter (tariff options, power demand, reset mode, ...). All the information stored in the meter can be collected and analysed back to the technical center, so that abnormalities in the consumption, internal meter failures, attempts to defraud, ... can be detected. With a minimum of communication and learning sessions, the EURIDIS technology and its tools can be rapidly mastered by the technical operators. With a ten years experience with EURIDIS, EDF has successfully reached his objectives of reducing the cost of meter reading and improving the satisfaction of the customers by not disturbing them anymore for the meter reading.

How a local utility has improved the meter reading and the relationship with customers ?

Electricité de Strasbourg (ES) is a local utility distributing electricity to 430 000 customers in a region at the East of France.

ES use the EURIDIS meter reading since 1995, and nowadays 42000 electronical meters are read by this way. The EURIDIS cable is systematically layed in new housing or if there is a restoring of existing houses. According to Vincent Wolf, manager at ES in charge of the communicating interfaces for domestic meters, EURIDIS is a good solution to face with the inaccessibility of the meters or the absence of the customer while the meter reading.

He considers that the technical operator must keep his job in the meter reading process and should not be replaced by a fully Automatic Meter Reading (AMR) system.

When the laying of the EURIDIS bus is not easy to do, especially in old housing, the radio technology can be well adapted. Since 1998, ES uses also an EURIDIS/radio gateway module which is connected to the meter and can be read by a specific laptop equipped with a radio interface, without changing the electronical meter. This radio solution concerns now nearly 4000 meters.

Vincent Wolf is confident that the future will be in the integration of the radio interface inside the meter in order to solve the problem of supply battery of the radio module and reduce the cost of the whole metering system.



