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.

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 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.

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 its 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 individal houses, because the laying of the EURIDIS bus is easy to do and with a very low cost.
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 configure 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 42,000 electronic 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.
A fully automatic meter reading system based on EURIDIS for office building metering devices and commercial centers in Spain

Since 1995, the French metering manufacturer SAGEM has installed in the city of Barcelon, Spain, 1800 electronic meters in few buildings, shopping centers and student residences. All these meters are placed directly inside the office or the shop so that the space configuration modifications become easier. All the meters are connected to an EURIDIS bus at the bottom of which is placed a concentrating computer integrating a phone modem for the remote reading of all the building. Metering data are daily collected and stored by the concentrator and are available for the electricity supplier whenever he wants by using the phone line.

Such a system allows a high reduction of meter-reading and operational costs in addition to a great flexibility for customer management.

As Electricité de France, Electricité de Strasbourg and Sagem, all the users of the EURIDIS protocol have grouped together to form an EURIDIS association in charge of the development, follow-up and widespread use of remote reading products. The EURIDIS association is open to any meter manufacturer, utility or software company which would like to have any more detailed information.

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