

CHIPCARD GAS METER

Niche Product or Tomorrow's Standard ?

There has hardly been a product in the gas world that has aroused so many hopes and expectations as the chipcard gas meter has. A simple billing process, no problems with late payers, no meter reading, improved cash flow and, on top of all that, within the realms of the liberalised markets, it opens up the way to the possibility of buying your gas in the supermarket around the corner. Nevertheless, there are very few products which have met with such resistance: customers need devices which are easy to use, can this really be said of this device ? Who will change the batteries and who will deal with those customers that are in the middle of a shower when the warm water runs out because they've forgotten to reload the chipcard ?

At this point we could go into detail concerning the long list of advantages of using a chipcard payment system but then we might find that we had just as many disadvantages. In order to evaluate the pros and cons, we should first of all look at the background.

A chipcard gas meter is just a normal meter with an additional valve, either built in or retrofitted. This valve can be activated from outside the housing. An additional, battery-operated electronic component is fitted to the meter housing. This registers the activity of the totalizer and compares it with the gas credit stored on the chipcard. If the credit runs out, the valve closes and can only be reopened if the chipcard is loaded up again. This is basically how the device works that we presented at the International Gas Fair in Berlin.

Up to this point, the way the new chipcard meter (CC meter) operates is almost identical to the old coin-operated meters, just substitute "mechanical" for "electronic" and "coin" for



Fig. 1: Elster chipcard gas meter

"chipcard". There are nevertheless quite a few differences over and above this. You don't have to collect a whole bunch of coins to operate the CC meter and you can also check immediately how much credit is left. On top of this, it is possible to activate an emergency reserve supply and call up operating data like the remaining battery life or manipulation messages while the card is being reloaded.

It goes without saying that the CC meter cannot exist on its own but must be a part of a complete system consisting of hardware (computer, card-reading device, communication components etc.) and the appropriate software. This type of system handles the entire readout and billing process for the customer and can therefore replace the processes they have used up to now. Fig. 2 gives an overview of a system with several points of sale linked to each other. So far, everything looks rosy. Things start to get a little bit less colourful when you go into more detail, i.e. the costs. Complete systems (Fig. 2) have the unfortunate characteristic of being rather expensive in themselves. The CC meter itself, at least as long as it is still produced in relatively small quantities, is also a good bit more expensive than a traditional diaphragm meter. Even the use of ultrasonic technology would not change this situation to any great extent, if at all. Under what conditions would it be possible for us to use this technology?

First of all, you have the cases where you previously had to resort to a coin-operated meter. Dealing with late or non-payers can be expensive – sending reminders, collecting debts, cutting off the gas supply and then reconnecting it at a later date all lead to costs you don't have with normal customers. If you have a limited area with 50 CC meters and one point of sale, then there are some interesting possibilities. In such cases, the CC system would offer the possibility of reducing debts or enable the Social Security people to check that any benefit paid out for heating is actually used for this purpose. Extensive application of the system would only be of any interest if there is a combination of reluctant payers and extremely high inflation. I doubt very much if we'll be confronted with a situation like this in the EU in the foreseeable future but it does exist in other countries and in many cases, when the payment has eventually been enforced, the money is no longer of the same value.

The deregulation of the energy markets will lead us to new solutions in the field of billing. Maybe it will also help to create the ideal conditions for a widespread use of chipcard meters. There may be some new players in the energy game like our fictional supermarket round the corner. They would already have their "points of sale" near the customers. They

could also act as energy dealers, issue coupons for the purchase of energy or maybe develop other forms of business that are so far unheard of. Then, our business environment would be completely changed. However, for the time being, this is all very much something of the distant future. If we wanted to load up our chipcards on the premises of various suppliers, "systems" would have to first of all be standardised. As far as we can detect, there are currently no moves towards this form of standardisation.

From our point of view, chipcards will only be used on a widespread basis in rare cases. In a nutshell, they could be used in an attempt to improve customers' paying behaviour or to reduce outstanding payments. Have we aroused your interest or made you sceptical? In any case, we look forward to hearing from you.

FROM PETER HAMPEL, ELSTER GERMANY hampel@elster.com

Figure 2: Sales Network with remote points of sale

