

**A success story.**  
**Installation and operation of 835 000 metering points for Fortum in Sweden**

*“Choosing Telenor Cinclus was a strategic investment – not an investment necessary in order to meet regulatory requirements. By choosing the most modern and flexible platform for automatic meter management we are able to offer our customers better service and a closer dialogue. It allows us to satisfy the customer’s need for value-added services like alarm and detection services or a home automation system for energy management”.*

**Christian Lundberg**  
 Managing Director  
 Fortum

**Telenor Cinclus –  
 smart and  
 efficient  
 automatic meter  
 management**

**Customer:** Fortum Distribution

**Industry:** Energy

**Challenge:** An automatic meter management solution to 835 000 Swedish homes, equivalent to 16 per cent of all households in Sweden. Supplying solutions, equipment and communication as well as operating the system over a period of ten years.

**Solution:** A turnkey AMM solution from Telenor Cinclus.

**Benefits:** A solution based on open and flexible technology that enables the energy company to develop new value-added services in addition to automatic meter reading. A solution contributing to energy savings, reduced CO2 consumption and more satisfied and loyal customers.

Fortum Distribution, part of the Fortum group ([www.fortum.com](http://www.fortum.com)), is a leading company in the Nordic electricity distribution market. Owning and operating regional and distribution networks Fortum offers safe and secure transmission of electricity to a total of 1.6 million customers in Sweden, Finland, Norway and Estonia.

**The Challenge**

*“For us the legislation implied implementation of remote and automatic meter management for all 835 000 customers in our network areas”, says Christian Lundberg, Managing Director of Fortum. “But our overall project scope was much wider than just meeting the regulatory requirements. Our ambition was to invite our customers to benefit from the electricity market, not only in terms of billing based on actual consumption”.*

The approach targets enhanced customer services and development of the Fortum brand but also to improve business performance by internal process harmonization, scale advantages and new products and services to ensure growth even outside existing business.

Fortum’s AMM sourcing strategy was to buy services and standardized functions from a service provider, with the necessary functionality developed and maintained outside of Fortum with clear SLA levels.

*“We wanted a service provider providing not only installation/rollout of the AMM service platform and delivery of contracted services, but also operation and maintenance of the service platform”,* explains Lundberg.

**The Solution**

In the “Fortum Comfort AMM project” Telenor Cinclus delivers everything from the physical equipment for meter management and communication equipment in the home to operations of the system. In addition, Telenor Cinclus has taken responsibility for project management, system integration, installation of the solution and future support and maintenance.

With Telenor Cinclus’ solution Fortum now takes advantage of forward-looking technology that can be scaled to meet future needs within AMM. Telenor Cinclus’ platform is based on open flexible solutions and designed to operate several different terminals

from various suppliers. Fortum can adapt the platform to a broad range of AMM services, e.g. remote reconnect/disconnect, power outage information, prepayment, multi-utility, load control and earth fault warning.

GPRS is used as the primary communication carrier yielding a strong platform and highly efficient means of collecting high quality data from the meters based on two-way communication. Another important element was that Telenor, the main owner of Cinclus, is emerging as one of the fastest growing providers of mobile communications services worldwide. Two-way GPRS communication are used in majority and complemented with PLC, radio and broad band.

### **System platform is core**

The core of the solution is Telenor Cinclus' system platform. All collected meter data from Fortum's customers are transferred and processed on this platform before forwarded to Fortum. The platform is safeguarded with a range of different physical safety systems including mirrored disks, automatic fault handling, double lines, encryption etc.

Starting in the autumn of 2006, Telenor Cinclus expect all Fortum's 835 000 household customers to be fully operative in the beginning of 2009. This means an installation rate of 2 500 meters per day. Currently – September 2008 – a total of 715 000 meters are installed. As the prime contractor Telenor Cinclus has commercial, technical, operational and functional responsibility. The gained experience in relation to logistics, installation and technology know-how is tremendous since Sweden is one of the first countries deploying automatic meter management, with "Fortum Comfort AMM" as the largest project of its kind (GPRS).

### **Lessons learned**

Among the learnings, Fortum points out the need for mirrored organization set up, a strong governance alignment, avoiding of resource sharing between operations and project, risk mitigation and good customer communication

### **The Benefits**

The AMM solution gives Fortum many advantages, contributing to creating a much closer dialogue between the company and their customers. The customers get more and better information, and Fortum will be able to offer several additional services, e.g. energy saving advice, alarms, water and gas metering, temperature control or in-house energy management. All this will contribute to reduced energy consumption, reduced CO2 emission and higher customer loyalty.

Swedish Quality Index (SKI) recently presented its investigation of the customers' perception of the electricity sector in 2007. Private customers view of Fortum has increased compared to 2006 with the highest customer satisfaction scores since SKI's measurements began. Fortum now has the best image and the best complaints response in the Swedish market.

Other benefits cover simplified administration, improved metering data quality and a more secure electricity supply. Receiving metering data more often, Fortum now gets a better and more updated overview of consumption in the various parts of its power grid. This enhances the control over how the consumption is evolving, giving Fortum the opportunity to offer a more secure electricity supply.

The main benefit for Fortum's customers is correct invoices based on actual consumption eliminating the previous long term estimation models. Also, registration of electricity consumption on an hourly basis gives the customer a better overview of own usage and consequently an opportunity to influence this consumption to the benefit of their own wallet and the environment.

### **Creative cooperation**

Fortum and Telenor Cinclus are now working together to identify interesting additional services which could be implemented at Fortum's customers and partners – and also at Fortum's competitors. The parties have decided to create a show-room to demonstrate a future vision and build a creative environment for the identification of new services and functions.

Energy management through home automation solutions and mobile phones will create a new customer relation and revenue source based on value added services.

The AMM solution from Telenor Cinclus targets these services making today's energy consumer a responsible member of the energy saving society of tomorrow.



## **Customer profile Fortum**

Fortum Distribution is a part of the Fortum group ([www.fortum.com](http://www.fortum.com)), one of the leading energy companies in the Nordic region. The group's activities cover all parts of the energy chain, i.e. oil, gas, electricity and heating plus energy-related consultancy work, operation and maintenance.

In 2007 the group recorded a turnover of 4,479 million euros and an EBITDA of 2,298 million euros. The number of employees was approximately 8 300.

Fortum Abp was founded in 1998 and the company's shares are listed on the Helsinki Stock Exchange.