

Automatic meter reading at Vattenfall Finland

Demand Response Workshop

19.4.2005, Crowne Plaza Hotel, Helsinki

Sanna Öörni

Manager, Products and services

Vattenfall Distribution Finland

Sanna Öörni
Manager, Products and services
Vattenfall Distribution Finland

Content of the presentation

1. Vattenfall briefly
2. Transitions of energy market
3. Improving customer service with telecommunications
4. Automatic meter reading (AMR) at Vattenfall Finland
5. Long-term benefits of AMR
6. Conclusions

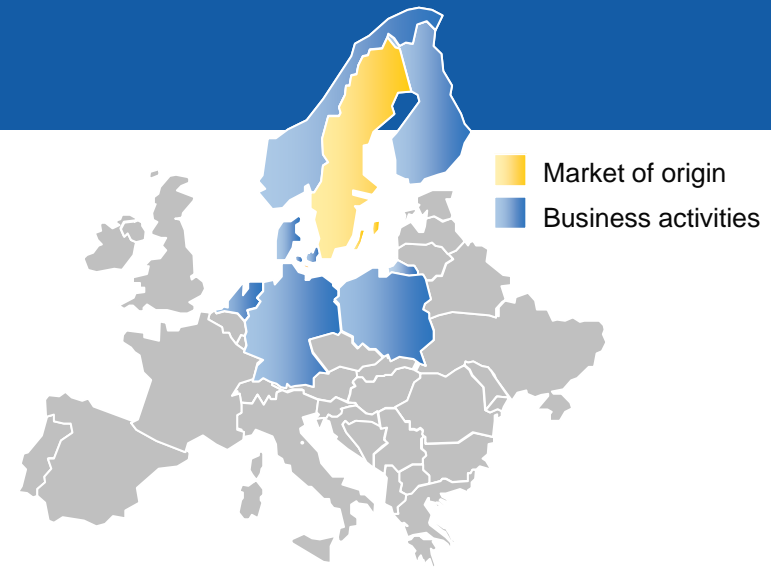
A woman with dark hair, wearing a white dress, is shown from the chest up. She is holding a clear plastic water bottle in her right hand. The background is a warm, golden bokeh of out-of-focus lights, creating a soft and pleasant atmosphere. The woman has a slight smile and is looking towards the camera.

Vattenfall
- A leading European energy
company

Vattenfall

Company description

- Active within electricity and heat along the whole value chain in Sweden, Finland, Germany and Poland
- Largest energy company in the Nordic countries by market share in generation
- 6 million customers in Europe



Strategy

- Focus on core products and core markets
- Strategy to grow through acquisitions in medium to long term to become a leading European energy company

Ownership

100% state owned

Key Figures 2004

Net Sales: € 12.6 billion
Operating profit: € 2.2 million

Vattenfall's main products

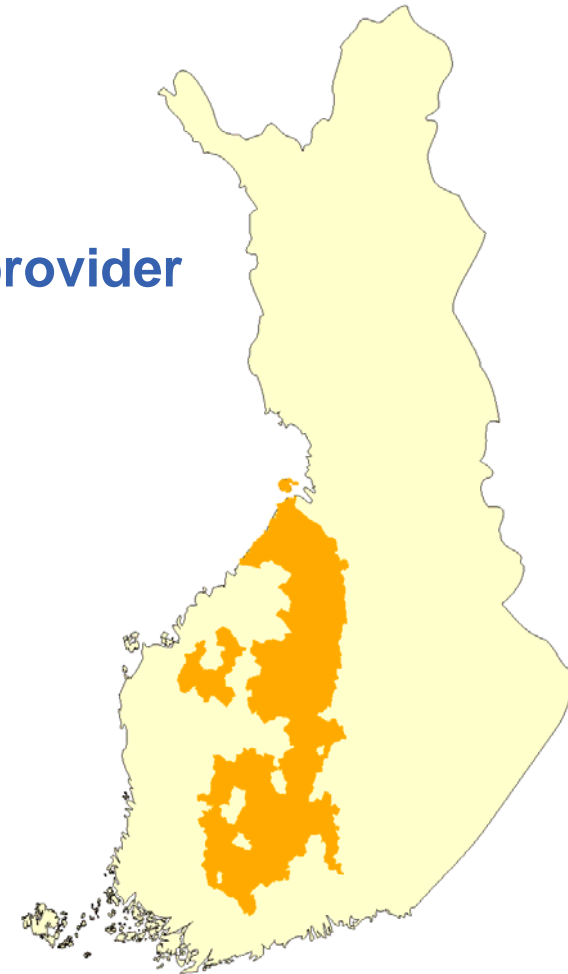


Vattenfall in Finland

Vision

Number One for the Customer
- open and customer-oriented service provider

Market entry	1995
Customers	365 000
Market share	12 %



Large transitions of energy market

- Local power generation plants 1880 –
- National distribution grid 1950 –
- Deregulation of the electricity market 1995 –
- Extensive use of information technology 2005 -

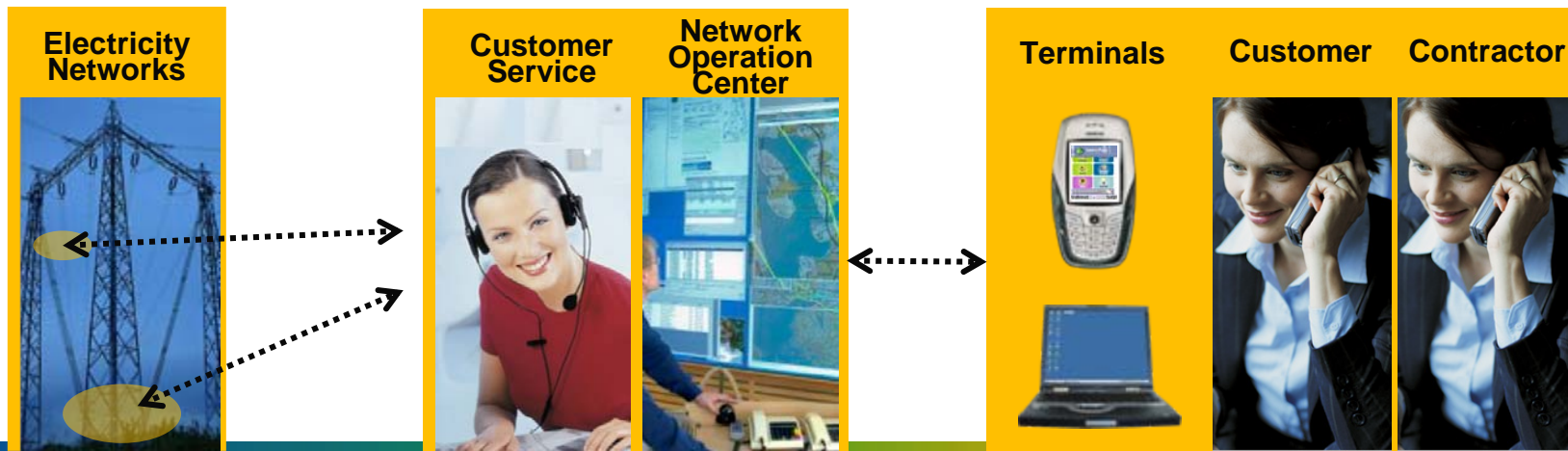


Challenges in energy business

- Improving customer service and increasing customer loyalty
- Providing new services and products in a cost-effective way
- Improving the efficiency of the operations
- Investing in the future distribution network
- Meeting regulator's requirements

Improving customer service with telecommunications

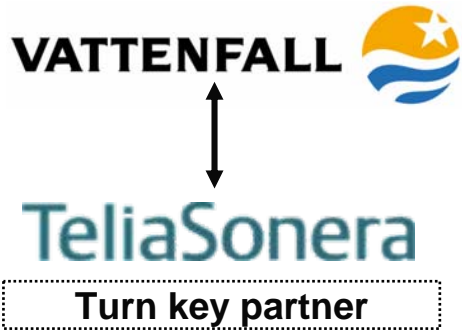
- **Customer-driven operations model** requires more efficient and wider use of technology and telecommunications in customer service
- **Extending automation in customer interface** creates new opportunities in electricity networks use and management
- **Mobile workforce management** and implementation of automatic metering system are significant development for the customers



Automatic meter reading at Vattenfall Finland

- Vattenfall has already installed 35 000 remotely read meters
- Every customer will be integrated into the automatic meter reading system by the end of 2007
- Strategic partnership with telecommunication company initiated 11 October, 2004
- The new system is cost-effective and it will open new business opportunities

TeliaSonera's total solution for Vattenfall



ISKRAEMECO **+ -**



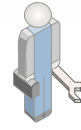
Modem integrated meters

SLO



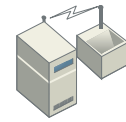
Logistics

ELTEL
networks



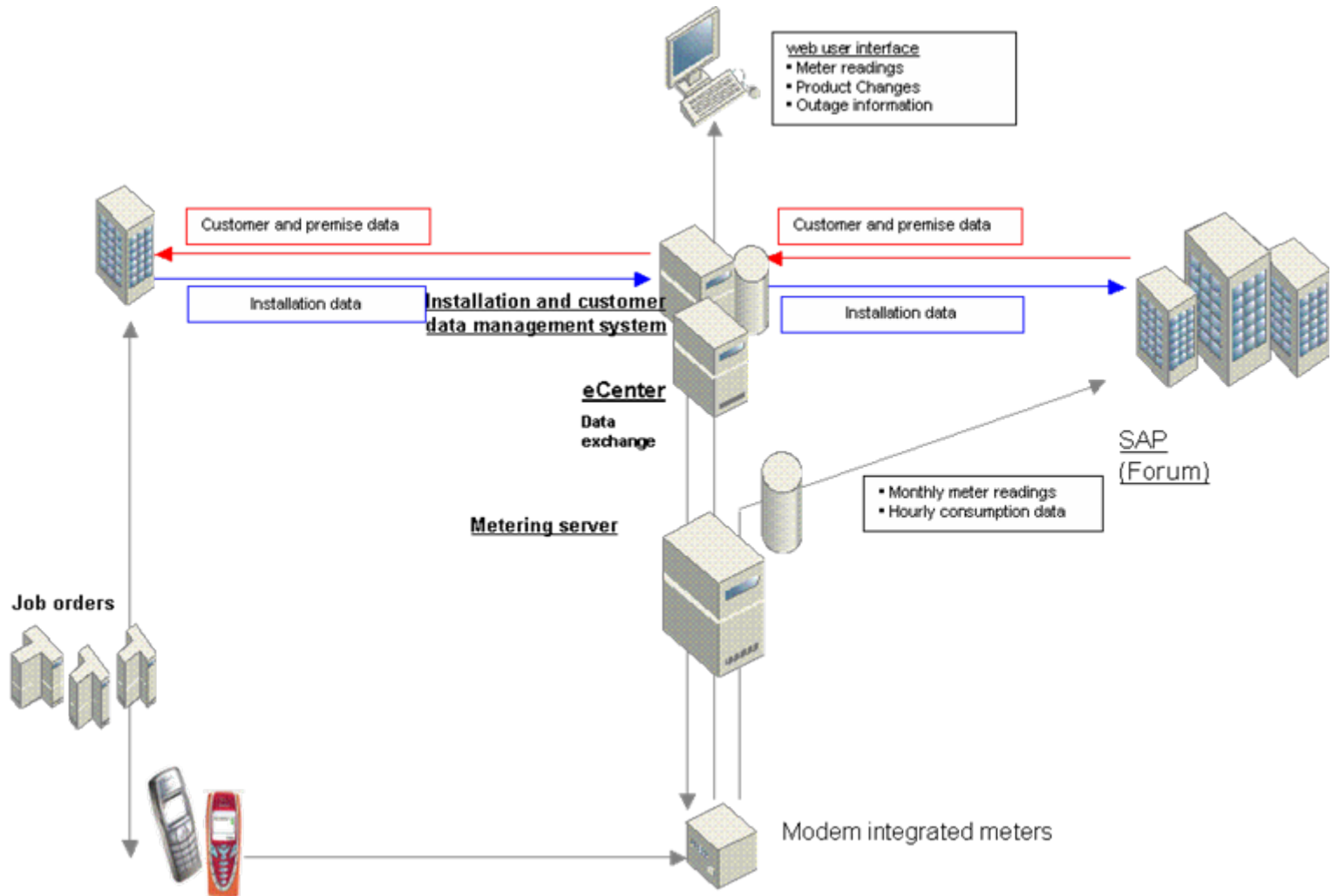
Installation

TeliaSonera



Reading and management

TeliaSonera's system service



Benefits to Vattenfall's customers

- Precise consumption information
- Clear and accurate billing
- Automatic outage information and faster recovery
- Better and faster customer service
- Eradicate the need for self-reading the meters



Benefits to electricity market

- Fast and accurate information exchange between all parties
- Flexible customer data management
- Opportunities to new products and services
- Customer-driven market development



Benefits to Vattenfall's operations

- Accurate information from the network load to optimize maintenance and investments
- Better network performance and cost efficiency
- Smart automated processes instead of manual work
- Accurate measurement of transmission losses
- More intelligence to business planning



Conclusions

- Key driver in the new electricity market is customer orientation
- Importance of information management and customer communication increases
- New technologies have a significant role in building the future distribution network and smarter energy services to customers
- Labour costs increase while technology and telecommunication costs decrease
- Key issues in the future are automatic remote management solutions and mobile work force management