

## OPEN GRID EUROPE

Efficient handling of hourly, daily and monthly processes in energy measurement and allocation



The ongoing regulation of energy markets requires the increasingly fast and reliable provision of information. Data-driven agility is key to meeting this challenge. A standardised, highly available solution allows Sopra Steria Consulting to help the largest German transmission system operator to meet its obligations and help it on its way to digital excellence.

Every year, the market rules set out by European and German regulators are speeding up the pace of system operator processes on the gas market. Providing hourly readings to end consumers has created a need for a reliable, highly available solution.

Sopra Steria Consulting has built on its proven GAS-X software suite to create such a solution for Open Grid Europe. The largest transmission system operator in Germany can now handle hourly energy determination and allocation processes on a 24/7 basis.

### The facts

- Complete mapping of energy measurement and allocation for system operators
- Highly automated process
- Compliance with DVGW G685, GABi and GeLi Gas requirements
- Reliable process for hourly, daily and monthly readings
- Scalable, high-availability GAS-X cluster based on IT standard technologies (Intel/LINUX)
- Modern web interface and link to standard office tools

### The challenge

From its headquarters in Essen, Open Grid Europe GmbH operates the largest gas network in Germany with around 12,000 kilometres of pipelines. It supplies a total of some 758 billion kWh of gas per year, more than two thirds of the natural gas consumed in Germany.

Open Grid Europe used different IT systems to perform daily and monthly energy measurement and allocation processes. Duplicating master data maintenance and data collation is highly labour-intensive and not manageable on an hourly basis.

Open Grid Europe was looking for a solution to standardise and streamline these processes to ensure compliance with all statutory requirements for data quality and market communication.

### The solution

A standardised system based on GAS-X GDM and GAS-X GRID was introduced to perform hourly, daily and monthly processes in the energy measurement system, allocation and market communication processes.

GAS-X was implemented as a cluster solution to guarantee high availability of 99.86% and further scalability. All interface workflows and individual interface monitors were implemented with GAS-X APM, an OEM version of Bosch BPM Suite. The all-inclusive solution is completed with GAS-X portal components. These will give Open Grid Europe customers and partners the freedom to gain direct access to their data and the ability to transmit meter readings.

Sopra Steria Consulting's consultancy services included:

- Planning of the whole solution based on GAS-X
- Concept design and initial operation of a scalable, high-availability GAS-X cluster architecture
- Incorporation of master data and integration of GAS-X into the IT environment
- Initial operation of interfaces for exchanging master and dynamic data
- Training and support for users
- Initial operation and go-live of the solution

## The cooperation

A project plan was devised to install the solution in two phases, jointly managed by Open Grid Europe and Sopra Steria Consulting. The friendly, expert, goal-oriented cooperative partnership met challenges as they arose. Tasks included changes to user operating methods and associated changes to the system. The system has evolved from an interactive setup to a highly automated mode of operation. Users monitor the system, check the results and only intervene in the event of errors.

This change in process management required all those involved to share an extremely broad vision and have the courage to abandon long-standing approaches to their work.

## The result

Today, Open Grid Europe uses a single, standardised system to manage the entire process – from measurement to the allocation of energy units in hourly, daily and monthly cycles, 24/7. It comes with a high degree of automation and extensive configuration options built in for calculating energy values, formulating replacement values and assuring the quality of data received and generated.

The GAS-X cluster system comprises three servers each featuring two CPUs with six cores apiece. The Oracle RAC system is designed to grow 1 TB per year. The current hardware can handle about ten times the current quantity structure, allowing it to absorb peak loads. Open Grid Europe can improve its data-driven agility significantly as a result – a key milestone in digital excellence.



“GAS-X allows us to calculate the best available energy and allocation data on an hourly basis. This allows us to efficiently meet national and European requirements.”

Ralf Werner  
Head of IT Management,  
Open Grid Europe GmbH

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