Honeywell

Case Study

Crystal Obtains Accurate Customer Billing Data with Gas Metering Management Solution

> "Reliability and accuracy of data collection are very critical for a gas storage business. Customers rely on us for billing data that matches their actual consumption. We are convinced that we have chosen the best gas metering management solution available on the market today."
>
> Dieter Dickebohm, Managing Operator, Crystal

Background

Friedeburger Speicherbetriebsgesellschaft mbH (i.e., "Crystal") is co-owned by EnBW Erneuerbare und Konventionelle Erzeugung AG and EDF Gas Deutschland GmbH. The company is involved in the storage of natural gas in underground caverns located in Etzel, Northern Germany. It also buys and sells natural gas using the European Gas Distribution System.

The Etzel cavern storage facility, which is run by GAZPROM Germania, BP Europe SE, and Dong Energy, began production in May 2013. Completion of the surface facility and its connection to six caverns followed five years of planning and construction. This site is located 30 km south of Wilhelmshaven and is linked by the BEP pipeline to gas grids operated by Gas Transport Services B.V. (GTS) in the Netherlands and Norddeutsche Erdgas-Transversale (NETRA).

Crystal gas storage operations in Northern Germany.

The Etzel caverns are rented to both companies in the energy branch and petroleum stockpiling agencies in Europe. They are used by customers to cover peaks in consumption, as interim storage for import deliveries and, in particular, for the storage of a large part of the strategic oil reserves for Germany.

Benefits

Access to precise, real-time customer billing data is essential for natural gas storage businesses. With reserves of over 400 million cubic meters of gas as trading stock, Crystal turned to RMG by Honeywell to supply a billing data handling system offering utmost accuracy and reliable performance. RMG by Honeywell has also proven to be a reliable long-term partner by providing the highest-level services and support tailored to the needs of the gas industry.

The gas metering management (GMM) software and service package enables on-site and remote monitoring of gas metering stations, provides data analysis and facilitates remote maintenance. It reduces operational costs and improves the accuracy and reliability of gas measurements.

RMG by Honeywell's GMM solution was easy to install and operates on a trouble-free basis. It eliminates unnecessary maintenance tasks and allows Crystal to deliver billing data to its customers in the most accurate and secure manner possible.
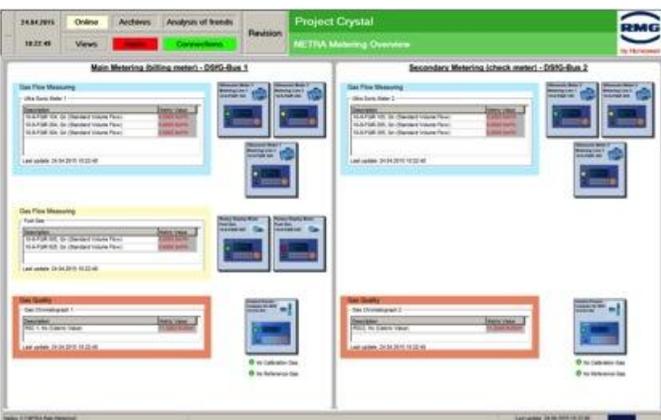
Challenges

The market for storage of oil and gas is becoming more important than ever. As the extraction of most raw materials takes place in politically unstable regions, commodity prices are always subject to strong fluctuations. Oil and gas suppliers try to counteract this uncertainty by setting up an appropriate storage infrastructure. The resulting demand for oil and gas storage facilities opens up considerable business opportunities.

Like other petroleum firms, Crystal required a billing data collection and handling system able to meet the demands of large-scale gas storage. Companies working in this environment deal with permanent push-in and pull-out operations, and it is crucial to have the correct billing data. Unfortunately, most existing supervisory control and data acquisition (SCADA) systems are not optimized for billing applications.

Solution

RMG by Honeywell experts understand natural gas storage operations and offer the right solutions to ensure peak performance. In this case, they were already familiar with the Etzel site from former projects involving the installation of products such as ultrasonic meters and process gas chromatographs.

GMM solution from RMG by Honeywell provides fast and accurate management of gas billing data.

RMG by Honeywell supplied Crystal with an advanced GMM software solution, which collects over 3,000 different metering points. The system is very fast and enables detailed integration of complex customer requirements. It organizes billing information from the flow computer archive to eliminate differences from the timestamps, as well as rounding errors compared to billing data based on the online database.

The GMM software pushes billing data to SCADA and electronic data management (EDM) systems utilizing a special XML interface known as a "Nimbus server." Modules for GMM monitoring and analysis are currently in use. The Nimbus server is an integrated part of the GMM solution and is supported through a software service contract with RMG by Honeywell.

The gas station management, analysis and terminal modules of the GMM framework were installed without the need for customized code changes and are easily configured. Dynamic system displays allow for detailed schematic diagrams of the monitored station, and enable Crystal's technical and accounting personnel to access and act upon current flow, pressure and temperature data and alarms in real-time. In addition, they can accurately determine the condition of all gas measurement instruments using a single software package. The ability to remotely access measuring devices simplifies planning and organization.

Dieter Dickebohm summarized: "I would like to point out the excellent support of the RMG sales team. We also appreciate the work from the developer who developed the complicated interface on her own and integrated this part in best time without faults."

For More Information
To learn more about how Honeywell's Gas Metering Management Solutions can improve business performance, visit our website www.honeywellprocess.com or contact your Honeywell account manager.

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