GAS-UNION GmbH

mP Energy®

Case Study

gas union services

metalogic
better forecasts for sure

Significant Savings Potential through Precise Forecasts

Optimising sales planning and forecasting secures a competitive advantage

Gas-Union GmbH conducts its business with municipal energy suppliers and industrial enterprises from its headquarters directly on the Frankfurt bank of the Main River. The wholesale company, which was founded in 1961, is among Germany's leading natural gas wholesalers and will generate sales of around EUR 1.9 billion in 2012. Gas-Union purchases natural gas on the open market through exchanges and from importers, and offers innovative delivery, pricing and service products to its customers.

Under the Gas-Union Services brand, Gas-Union simultaneously offers innovative solutions for handling gas deliveries. For example, Gas-Union Services and its partners form the most successful balancing group pool in Germany. Portfolio effects are used transparently in order to generate benefits in the balancing model across companies. Business solutions are adapted according to customer requirements, whilst forecasting for public utilities and industrial customers is also among the services offered. They are able to benefit from the many years of experience that Gas-Union Services has acquired in this field, and can therefore minimise their balancing costs. A bonus/penalty system ensures continued success in the forecasting process. Next to the forecasting system, additional professional systems – for example for balancing group management – are used to provide high-availability services for individual primary clients.

Forecasts are increasingly important for successful business processes

In order to plan load profiles as accurately as possible, respectively being able to keep balance energy costs as low as possible, "forecasting" is of special importance at Gas-Union. Here the liberalisation of the gas market was taken into account back in 2007 with the implementation of a corresponding software programme in order to model and comply with regulatory changes.

Prior to the introduction of the 2-contract model, a network-based forecast was usually adequate enough to form the basis for portfolio optimisation. In the meantime far more complex forecasts are required for different time periods, so that the most accurate possible nomination and planning of the required gas volumes can be realised across Germany, independently of networks.

After reviewing and testing several forecasting systems available in the market, a solution offered by the specialists at HAKOM EDV-Dienstleistungs GmbH (HAKOM) – an Austrian software producer and consulting service provider in energy data management – was chosen: the time series system ZRM in combination with **mP Energy**, the forecasting system of metalogic GmbH. **mP Energy** can apply a wide variety of time series as well as hourly and daily period splits to be used and is able to process any number or type of predictors.

High Requirements for Forecast Quality

Gas-Union established high standards for their forecasting requirements. These relate foremost to the forecasting quality itself, which is crucial for the cost-effectiveness of the solution and for the optimisation capabilities. Generating forecasts of the highest possible quality is needed to keep deviations in the balancing group and the resulting balancing costs (balance energy and structuring fees) as low as possible.

Flexibility is important as well so that the system can be readily adapted to cope with changes and modelled according to vary business processes, plus user-friendliness for achieving a high level of acceptance amongst users.

In accordance with these requirements, the decision makers at Gas-Union found the combination of the time series manager from HAKOM and the **mP Energy** forecasting solution from metalogic convincing.

*Marc-Peter Malerius, responsible for forecasting at Gas-Union GmbH: "The overall package of the two solutions was and is highly attractive for us. Besides the combination of ZRM and **mP Energy**, which covers the functionality we require to forecast load profiles, integration into our existing infrastructure is also a major advantage. We readily linked the forecasting tool to our systems via the time series manager, thereby avoiding additional costs and effort for isolated solutions. In retrospect, we are able to confirm that the previously defined selection criteria have proven to be valid for us even today. While the first step was initially dedicated to modelling for regulatory requirements, the importance of forecasting for our business processes has increased significantly in the meantime. Forecasting has a significant impact on the various areas of our current activities today."*

Reflecting various predictors are crucial for metered customers.

Gas-Union uses various forecasting periods for nomination, encompassing the next seven days in the short-term range. The forecasts for the respective following day as well as the next three days are most important here. The load profiles of large LPM (load-profile metered) customers are aggregated in order to achieve an even higher forecast quality with even lower deviations. Gas-Union currently covers around 400 LPM supply points with some 80 daily forecasts in this manner.

"In our day-to-day business, we benefit from the great flexibility which allows us to take into account the individual predictors for our customer forecasts," says Malerius. "These variables often play a decisive role, especially for generating plants and industrial customers. As an example a heating plant which we supply, data such as inspection and shutdown times flow into the calculation along with weather data, calendar variables and pressures as well as supply and return temperatures."

mP Energy® – Better Results Quicker.

Multiple forecasts for the introduction of GABi Gas

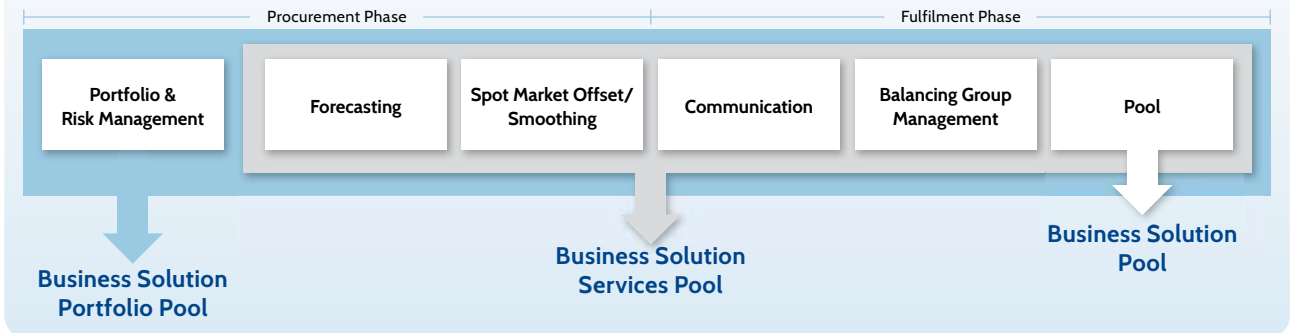
In 2008, new regulations due to the base model for equalisation payments and the balancing rule in the gas sector ("GABi Gas") resulted in vast requirements for data communication between the market participants. In the course of nationwide implementation difficulties, only incomplete or simply no allocation data prevailed for forecasting over a period of several months. This was a new challenge for the forecasting tool, which was subsequently complemented with respective system extensions in the form of multiple forecasts. On the basis of the automated generation of historical data, very exact forecast results could be calculated without current values even over longer time periods using special algorithms.

Besides load profile forecasting, Gas-Union has also been using **mP Energy** with the meta Assessment option – developed in response to user requests – within the scope of customer analysis to address the area of bid proposal management for gas distribution since April of 2012. For major industrial customers with a gas volume of 100 GWh or more, a precise risk assessment is a crucial success factor for being competitive. The analysis calculations required ranged from semi-automated to fully automated, which significantly reduced the time required for bid proposal production and management. Further extensions are planned within the scope of procurement optimisation on the basis of long-term forecasting over periods of several years.

"For us the investment in the forecasting solution was amortised very quickly," Malerius says in conclusion. "First of all there are the savings we incurred by minimising balance energy, a highly crucial factor. Secondly, we now have a highly functional tool available to us within the scope of balancing group management, which we are able to use and deploy as part of additional service for our customers. Furthermore, we have been using automated sales analysis and planning for a number of months – a segment that harbours significant optimisation potential as well, in view of our overall purchase volume. For us it is also very beneficial to be able to readily convert new ideas and requirements into solutions in a timely manner – as are so often the case, supposed trifles often make the difference and make our forecasting easier as well."

Marc-Peter Malerius, Gas-Union GmbH

Three Business Solutions for individual Marketing Strategies of Gas-Union Services



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