

Best In-house Software System - Essent

Back in 2002, Dutch utility company Essent had two major problems. First, its gas portfolio was expanding faster than conventional reporting tools could keep pace with. Secondly, as a result of the first problem, the portfolio consistently underperformed, as energy traders were flying blind. It often took a week to work out whether a deal had made money.

Essent has roughly a third of the Dutch market, with 2.5 million power customers and around 2 million customers for its gas. Its operations span the entire energy chain and include managing generation, storage and transportation for fuels and power. Its trading operations, under Essent Energy Trading, cover the Netherlands, Belgium, Scandinavia, the UK, Germany, France and Italy, and range from simple long or short-term physical contracts to complex structuring deals. This complexity of business meant that fixing the problem was not easy. Essent needed to increase visibility across its entire business and improve its ability to handle large volumes of complex data in order to operate more efficiently and boost revenues.

To come up with a solution, Essent partnered with software consultancy Sapient. Through a programme of workshops, Sapient and Essent completely redesigned Essent's business processes under a suite of projects called Parkmaster. One of the first projects under Parkmaster was the Gas Optimisation application. This ambitious software project, which was rolled out in 2003, allows integration of the company's physical and financial positions and operates across every area of the gas business, from long- and short-term contracts to physical production and delivery.

"The Gas Optimiser calculates the intrinsic value of the entire portfolio, looking across gas contracts and deals, physical production through to delivery, and then recommends actions to increase the extrinsic value," says Gareth Griffiths, head of Essent's gas and coal trading desk. "So, gas storage, for example, becomes a financially-modelled physical option."

The Gas Optimisation solution gave Essent real-time visibility across its entire gas portfolio for the first time. By capturing all of Essent's gas trading data in one place, the Gas Optimiser facilitates operational efficiency by indicating the most economic plays available, given the existing portfolio. Today, Essent can generate a position and optimised position report every morning. The system has enabled the company to register significant growth since its inception.

"We needed the system because our business was growing quickly, but it has grown even more quickly since installing the system," Griffiths says. The company's earnings before interest and tax (EBIT) have doubled every year in the first three years of the Gas Optimiser implementation.

Due to the volatile nature of the gas market, and the penalties which Dutch companies incur if they mismanage the gas transportation system, the Gas Optimisation system is calculated to have paid for itself within the first 24 hours of installation.

The application uses Java system interfaces, Oracle database technology, and MathWorks' Matlab-processing engines to optimise the gas portfolio's return. Tibco integration tools were used to tie the systems together in real-time. The flexible architecture and cross-application data capability allows for improved decision-making as well. Indeed, another key advantage of the Gas Optimiser is that it has allowed Essent traders to form a better profile of their customer's needs. "It's not only about increasing our operational value and trading value, but it also adds strategic value," Griffiths says. "It allows us to see which customer segments we should be marketing to," he adds.

The impact on Essent's trading business has been enormous. "It was like going from being a one-eyed man to someone with perfect vision," he says. "We can see what's going on in hour 16 of any day, two years from now."

Griffiths believes, the Gas Optimiser will remain a work in progress, continually being tweaked and updated to reflect the changes in the market. "We can't see the end of what we can do with the Gas Optimiser or our other systems, as the market is always changing. They are all building blocks and perhaps you're never finished," he says.