

Gaz de France Powering Up for Deregulation

Helping Gaz de France develop a retail power business through flexible pricing and demand forecasting solutions.

The Situation

As the incumbent natural gas player in France, Gaz de France faces new challenges and opportunities from gas deregulation and public shareholding. On the one hand, gas deregulation awarded French business customers – about 550,000 sites – the right to choose suppliers in mid-2004. On the other hand, a minority share of the company's equity was sold to the public in the second half of 2005.

In this context, Gaz de France decided to grow a material presence in the French electricity market and beyond. The objectives are two-fold: Retain gas customers through dual offerings, and become a primary challenger to Electricité de France in the French market.

The Solution

Given the stakes for the company and the specificities of electricity retail as compared to gas, Gaz de France decided to implement a range of specific applications to support the new activities. Capgemini, in collaboration with SAS, was entrusted with the challenge to address two core business solutions, *pricing* and *demand forecasting*.

While pricing focuses on the management of offers and contracts to fit client needs, demand forecasting ensures optimal energy purchases to avoid imbalance penalties. Both solutions play a key role to manage profitability of the retail business, which typically displays small margins in deregulated markets.

The Result

Both solutions are now live to support electricity customer acquisition for Gaz de France. The company has embedded its own expertise in the requirements, thus ensuring that the result remains proprietary.

In addition, business experts at Gaz de France who worked on the projects, and are now key application users, underpin effective knowledge transfer. This allows Gaz de France to capitalize on its early experience and fine-tune various parameters and operation procedures of the new retail business.

“Close collaboration with Capgemini has made it possible to implement the necessary tools to develop our retail business activity, with the flexibility to accommodate market evolutions as well as our own expansion.”

Yves Debailleul
Head of Electricity Retail, Commercial Division
Gaz de France

How Gaz de France, SAS and Capgemini Worked Together

While Gaz de France had already defined high-level requirements at tender stage, Gaz de France and Capgemini worked jointly on detailed specifications, challenging original ideas, adding necessary details around existing requirements and, whenever possible, ensuring maximum flexibility through the systematic use of parameters in pricing formulas as well as forecasting models.

Both projects followed a standard waterfall approach to specify, design, build, test, train and deploy, with specific competences leveraged at each stage to add value to the overall programme. SAS participated throughout both projects. This ensured that SAS software capabilities were fully leveraged in the design stages, and development and testing undertaken with full knowledge of the SAS software available. Collaboration with SAS enhanced project efficiency and minimized risk.

Flexibility as a key requirement

Several reasons led Gaz de France to emphasize flexibility as a key requirement for both solutions. These included a fast moving portfolio in terms of size and shape, changing customer needs and market rules that were still evolving. It was also important for Gaz de France to be able to capitalize on its experience over time.

Desired flexibility, combined with scarce vendor market expertise in France and the strategic nature of both pricing and demand forecasting led Gaz de France to opt for specific developments built on an SAS Enterprise Intelligence Platform. Besides Gaz de France already using SAS software, the choice was motivated by the availability of mathematical and statistical procedures – through the SAS/STAT® and SAS/ETS® modules – especially suited to the technical nature of pricing and forecasting applications.

Core Business Solutions

The need for flexibility translated differently over each solution. On pricing, Gaz de France identified several specific requirements like:

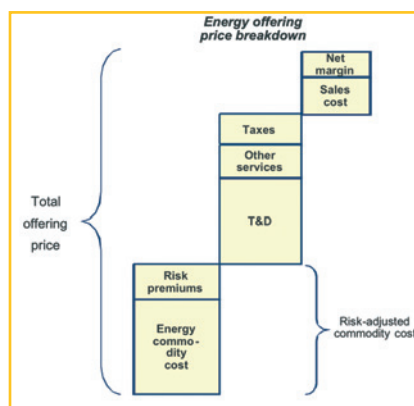
- Easy update / expansion of new products,
- Creation / consolidation of sub-offers for multi-site accounts,
- Systematic use of client configurable parameter sets matching price

- components of electricity offerings,
- Specific user authorizations for custom versus standardized pricing to reflect a diverse client base.

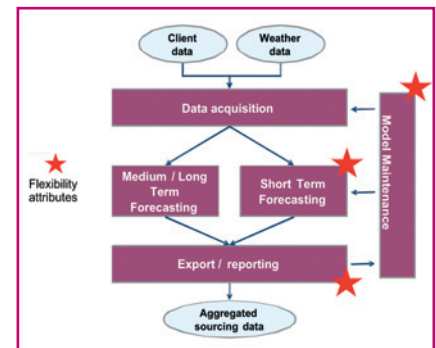
Requirements for the demand forecasting solution, targeting telemetered interval customers, included:

- Individual or aggregated treatment of customer load curves, with custom definition of aggregation classes,

Electricity price framework



Demand forecasting solution architecture



- Possibility to associate several different models to a given curve,
- Use of parameter-based models, with the possibility to switch between different variables,
- Manual pre- and post-forecasting inputs to account for specific client information.

Both solutions are accessible via Gaz de France' intranet. They were built from SAS 9.1.3 for UNIX using additional technologies such as ETL Studio and Weblogic 9.



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