

ForecastXM

Energy Demand Forecasting for Utilities

Ex Machina's leading Energy Demand Forecasting solution built specifically for the needs of modern utilities. The system helps organizations reduce their imbalance penalties, optimize demand/supply balancing, define optimum base loads and increase their revenues while improving operating margins.

THE CHALLENGE

Modern day utility companies face unprecedented challenges and disruptions. Fluctuating energy prices, changes in political environments, new forms of regulation & competition and the ever-increasing demands from their customers put an immense pressure to achieve operational excellence whilst improving profitability.

Energy risk management is a vital element of this jigsaw, the effectiveness of which is underpinned by highly accurate energy demand forecasting. Yet, effective forecasting depends critically upon weather. Weather is perhaps the single largest external swing factor in business performance – responsible for an annual economic impact of nearly half a trillion dollars in the U.S. alone. However, accurate weather prediction is still an open scientific question. Different meteorological models provide different predictions for the same location. How can you know which one to trust and more importantly rely your energy demand forecasts on?

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FORECAST



Benefits

- ✓ Increase revenues by improving operating margins
- ✓ Optimize your demand/supply balancing
- ✓ Minimise imbalance penalties
- ✓ Highly accurate short-term and educated long-term forecasting
- ✓ Quick & safe integration
- ✓ Enterprise-grade security, speed & uptime, underpinned by the world's leading cloud infrastructure providers

OUR SOLUTION

At Ex Machina, we believe that highly accurate energy demand forecasting underpins the success of your business. By combining powerful IT technologies with our revolutionary weather data service we provide risk mitigating insights for the energy industry.

ForecastXM aggregates and compares third-party forecasts with real-time weather conditions in order to measure forecasting accuracy per location and forecasting provider. This data is then extracted and utilized by our unique combination of machine learning algorithms to produce a highly accurate, hyperlocal, forecasting model. Our customers see a significant improvement in their energy demand forecasting capability directly benefiting their profitability.

CASE STUDY

Attiki Gas Supply Company is one of Greece's major gas suppliers, serving 330,000 households, 6,500 businesses and 1,200 schools and public buildings, wanted to improve its gas demand forecasting accuracy. Part of its obligations is to daily report its natural gas capacity booking, the accurate estimate of which is directly related to the company's cost savings strategy. Ex Machina worked closely with the company to address this artificial intelligence challenge. The first step was to obtain the necessary historical weather data for training the machine learning algorithm. Once these were identified, the next step involved the automatic delivery of the data duly processed and in the desired format. After validating quality of service and the accuracy of results, ForecastXM started feeding this information into the main system of the supplier.

WHY EX MACHINA

Ex Machina is an award-winning company based in Greece, founded in 2015. It brings innovative approaches to solving challenging problems in the energy sector by utilizing its expertise in Weather Analytics and AI.

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“*Ex Machina provides high quality weather data and reliable forecast, through their cloud platform, optimizing the effectiveness of our forecasting algorithms.*”

Panagiotis

Kondogiorgos,

Market Analyst, Attiki

Gas



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