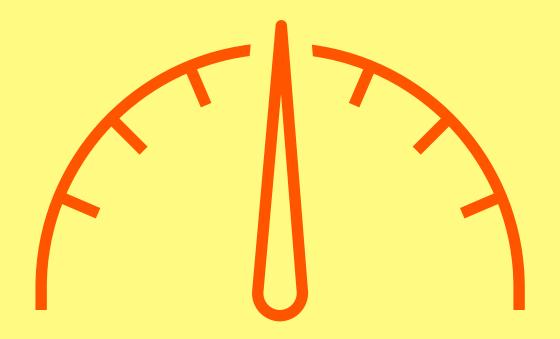
ALPIQ Challenge



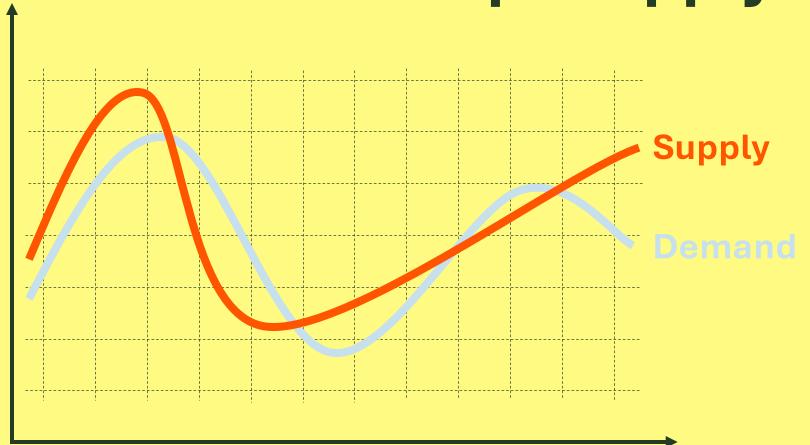


The Problem



ALPIQ

Goal: Predict Demand to Adapt Supply







Data used





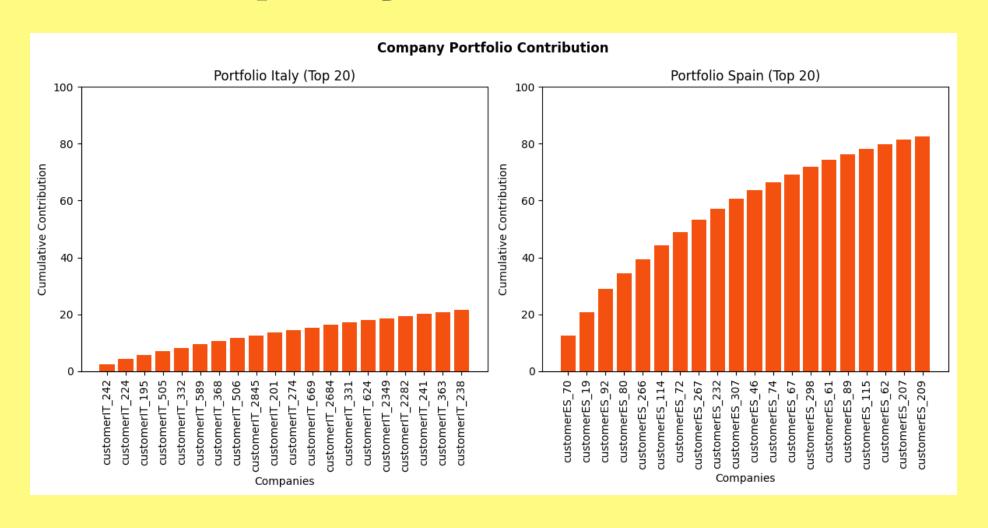








Company Contributions



Our Approach

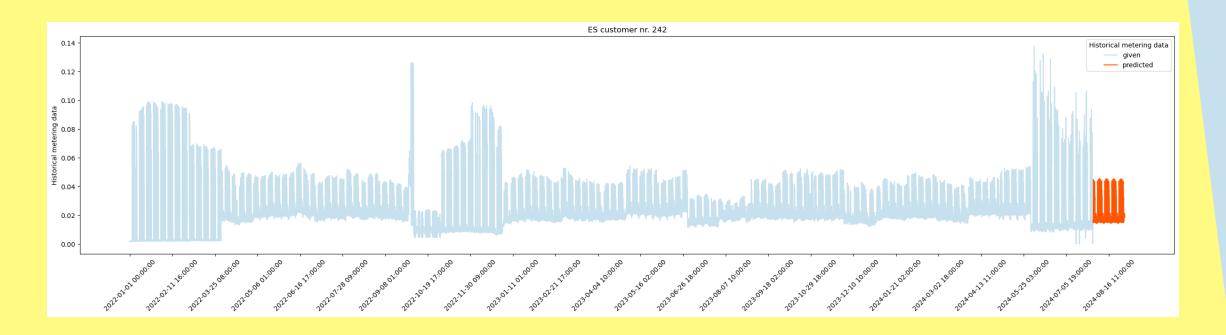
Different methods proved more effective for different clients.

Our models:

- Gradient Boost
- Seasonality Analysis
 - Mean
 - Hourly Mean
 - Hourly Mean 7
- Hourly Mean 7 + Gradient Boost on Residuals



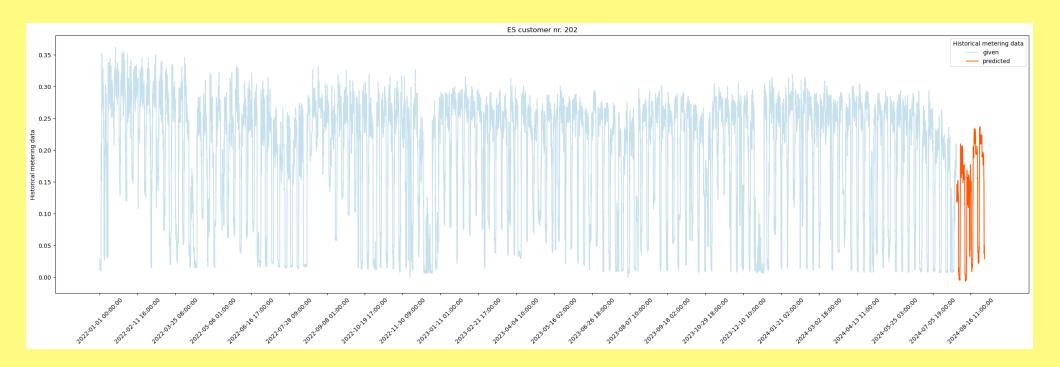
Seasonality Analysis



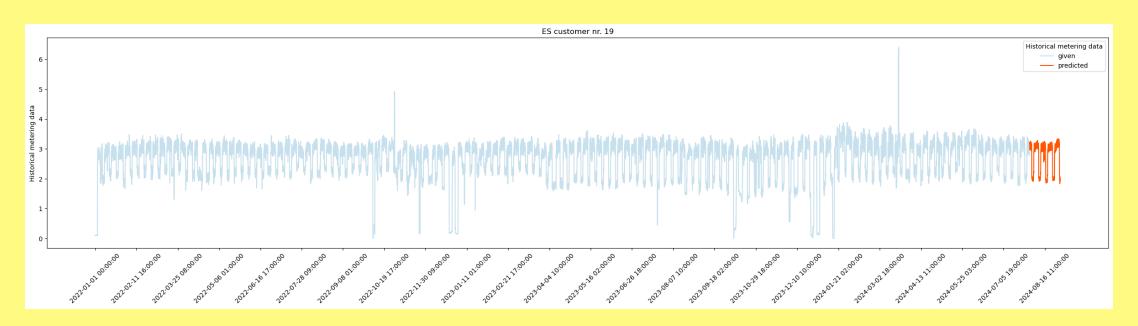


Gradient Boost

- Ensemble Method: Combines many Decision Trees
- Boosting: Each new model corrects error of the previous one
- Gradient Descent: Minimizes loss by fitting to residuals



Learning the Noise



Gradient boosting on residuals of Hourly Mean 7



Model Contributions

