

Short Term Gas Demand Forecasting

Summary October 2024 Meeting Presentations



ERRA Gaseous Fuels Markets and Economic Regulation Committee (GF COM) Meeting

January 29, 2025 | Online meeting

Topic description



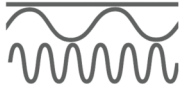
This case study shall focus on the methodology for setting short-term gas demand forecasts, particularly for the annual and winter periods. The discussion will cover the data used by the Transmission System Operator (TSO) to forecast gas demand for different users, including Distribution System Operators (DSOs), industrial high-pressure users, and power plants. Participants should delve into the specific gas forecast calculation formulas for volume and flow applicable to each type of transmission system user.

Countries presentations



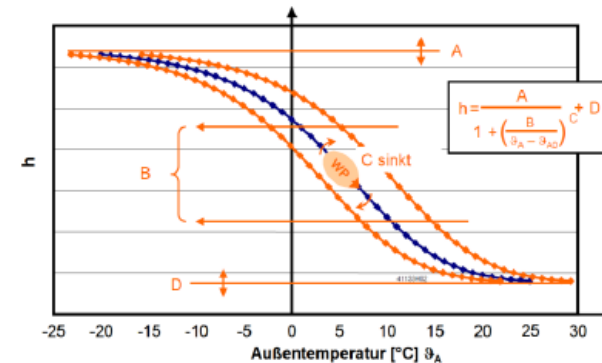
Countries that presented short term gas forecasting:

- Austria
- Albania
- N.Macedonia
- Thailand



Short term forecasting: Day-ahead forecast by market area manager (AGGM)

- Gas Market Model Ordinance 2012 mandates AGGM daily SLP consumption forecasts for each grid area, each supplier and each SLP type (updated 3 times per day depended on temperature).
- The calculation uses suitable temperature forecasts in cooperation with the respective DSO and on the basis of the SLP transmitted by the balance group coordinator.
- Methodology is an asymmetric sigmoid function and coordinated with E-Control.
- Function shows the dependence of the daily gas demand on the temperature.

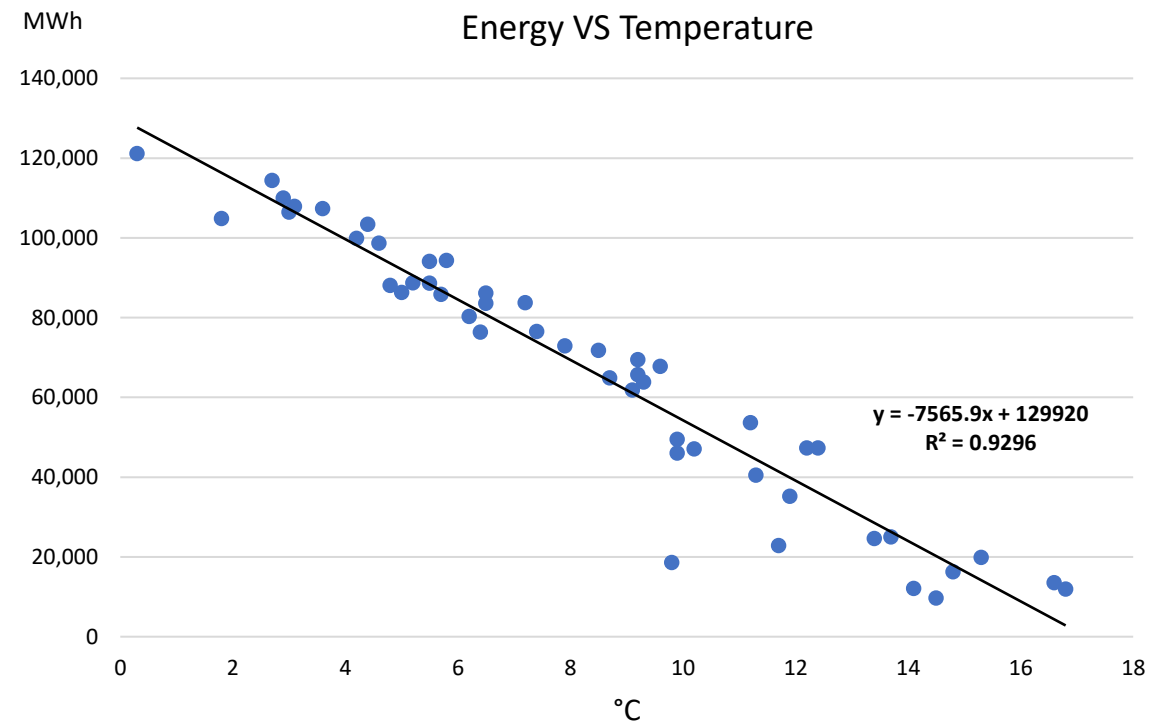


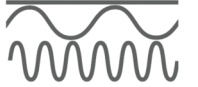
Sources:

- Small market with small quantities of natural gas
- Gas demand forecast is made by the ministry and relevant institutions
- Annual time frame for gas demand forecasting
- Inputs in forecasting: contracts, customers, historical data etc.
- No mathematical models for forecasting

N.Macedonia

- The ERC is making gas forecasting when setting up the TSO and DSO tariffs with inputs from TSO, DSO and consumers
- Inputs, historical data, TSO and consumers forecast
- Temperature dependent consumption





- Gas is used for power production, thus gas demand is depended on electricity load
- Gas demand forecasted by the electricity generator operator
- The regulator monitors the forecasted timeframes of monthly, annual and five years period, updated on four months,
- Inputs: weather forecast, contracts, hydro and coal production, GDP
- Linear regression used for forecasting



**THANK YOU
FOR YOUR ATTENTION!**

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