



GNoMo

Gas Nomination Model

Intelligent LNG logistics and thermal dispatch, optimized to handle uncertainties



Challenge

Managing LNG supply means dealing with variable weather conditions, volatile global gas prices and uncertain dispatch by the grid operator. Relying on static spreadsheets or simplified decision-making processes can limit the operation's analytical capacity, preventing thermal power plants (UTEs) from achieving their maximum financial efficiency.

Solution

GNoMo transforms the way you handle uncertainties in your supply chain. Driven by advanced stochastic optimization, it **incorporates complex operational uncertainties** to define **complete LNG nomination schedules** based on data, protecting your revenue and maximizing your plant's efficiency.



Maximize business efficiency

Protect your margins by ensuring operational predictability. The model reduces exposure to cost overruns in the Short-Term Market and optimizes maritime logistics to avoid surplus expenses with ship stays (*demurrage*).



Intelligent risk management

Integrate meteoceanographic, grid and boil-off unpredictability into your decision-making. By managing uncertainties, the model guides your logistical decisions to deliver a more resilient and profitable operation in the long term.



Optimize expansion decisions

Increase the solidity in estimating the ROI of a possible business expansion: simulate the operational and financial impact of new Floating Storage Units (FSU), onshore tanks or connections to the gas grid before investing.

How GNoMo protects your supply chain

- ☑ Gas-to-Power generators
- ☑ Integrated regasification terminals
- ☑ LNG portfolio managers

Input



The system assimilates your constraints: grid dispatch probabilities, price forecasts and historical meteoceanographic data.

Optimization



GNoMo's engine runs multi-stage simulations, stress-testing critical decisions against hundreds of possible future scenarios.

Action



You receive a clear and actionable schedule detailing exactly when to nominate LNG cargoes and how to allocate volumes across your assets.

Simulation under uncertainty

Replicates real-world control room decisions by preventing the model from using "perfect foresight", ensuring your risk assessments are grounded in reality.

Meteoceanographic scenario generator

Uses statistical models to simulate different meteoceanographic conditions at the port, protecting ship-to-ship (STS) transfer operations.

Dynamic asset management

Easily models complex interactions between LNGCs, FSRUs, FSUs, onshore storage and multiple flexible and inflexible thermal power plants.

Intuitive interface and reports

Accessible through a user-friendly interface that generates clear dashboards and detailed CSV exports for quick decision-making integrated with other platforms.

From R&D to real operation

Developed within the context of the **ANEEL R&D Program** in partnership with **GNA**, GNoMo has been extensively tested and is used in the company's day-to-day real operations. The solution is ready for commercialization and, in operational benchmarks, has demonstrated **financial and operational gains** for the nomination process.



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