

Lutech Sinergetica

The complete best in class
Perseo ETRM Solution to
support the whole energy
business process.



Energy Management and Business Analytics Applications - Perseo ETRM Suite to support the complete Deal Lifecycle and Wholesaler, Trader and Reseller Portfolio Evaluation



Challenges

Wholesalers, market operators and resellers need a **complete front-to-back office Solution** to support the whole energy business process.

Our Clients need to **manage data acquisition** from **external providers** (weather data, prices, metering, etc.), **direct communication** to **third-party** systems (scheduling, bidding, etc.). Our Clients need analysis and reports supporting **trading strategy**, and also **portfolio management** and **invoicing** process support.



Ideal Solution

Perseo ETRM, Bidding Manager and Trading Desk, Energy Data Center, Electryon, Alceo, Customers & Producers Interface. This is the suite resulting from more than 19 years of experience in business consulting, design and implementation of Energy Markets Solutions.

The integrated Suite includes **deal capture, time series management, portfolio and risk management, settlement and regulatory compliance**, market **interfaces** for European **scheduling** and **real time portfolio analysis, metering** data and **forecasting** management, clustering and aggregation, **pricing** tool generation, **contract management** and fixing.



Desired Outcomes

ETRM Suite is **reliable, service oriented, flexible** and market **quick in answering oriented to the user's needs.** **More than 30 Energy Companies** are already working on this suite in Europe, best addressing challenges of the energy business processes.

ETRM Suite is a **multi-country** platform supporting **several** operating **Legal Entities.** It offers **modern** and **ergonomic** tools based on the most **advanced technologies**, providing a flexible, interconnected, integrated and powerful environment.



Lutech Sinergetica. Perseo ETRM Suite



Lutech Sinergetica **Perseo ETRM Suite** covers all Energy Commodities, Gas, Emissions and Derivatives, on a multi-country platform supporting several operating Legal Entities. The Suite is dedicated to Wholesalers, Traders and Resellers.

Trading Strategy and Bidding Management

- Short/long Term Market Strategies and analysis of portfolio and economic KPIs
- Historical and real-time series management and portfolio analysis, graphical analysis and reporting tools
- Operative dashboards, graphic and tabular user-friendly interfaces

EDM & Forecasting, Customer/Producers Interface

- Automatic import retail metering data (consumption), what-if and back-office analysis, clustering and aggregation
- Short/long term demand forecasting
- Contract management, risk exposure to indices and prices, fixing activation and reporting tools

Portfolio and Risk Management, Settlement, Scheduling Power/Gas

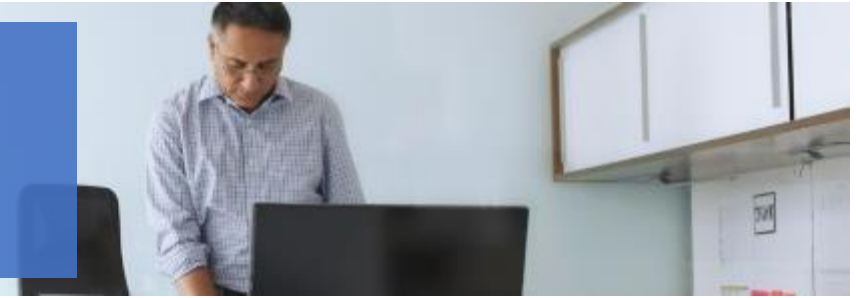
- Contract and portfolio management, data management, counterparty exposure and sensitivity, deal lifecycle and Confirmation workflow, settlement and compliance support
- **POWER:** scheduling and bidding, plant dispatching, market results and reporting, direct TSO's communications
- **GAS:** nominations, TSO's communications, balancing, storage management and penalty enhancement

Datalink & Communication to third-party systems

- Data linkers power the Suite by acquiring prices, market data and metering data by external platforms and operators, and/or data providers.
- Direct communication with TSO and market operators, brokers, Trade repository and SDI

After a careful software selection, we have chosen to rely on Sinergetica because it combines a wide functional coverage on the business domains required with a deep knowledge of the business processes", said the Energy Management Director of a major energy Company in Europe. "Moreover, the energy market restructuring process in this market imposes a careful but flexible approach in the project management, that we have found in the values of Sinergetica"

Lutech Sinergetica. Perseo ETRM Suite + Microsoft Azure



Joint Microsoft and Lutech Sinergetica - High availability of Azure native solution, high scalability and flexibility to provide an interconnected, integrated and powerful environment to adequately address challenges of the Energy Sector.

Solution Alignment

Lutech Sinergetica + Microsoft Azure High availability

- Redundant hardware configuration for the application server in load-balancing, drive the split workloads on servers and having greater availability at the same time
- SQL Azure Database on geographic redundancy allows to deploy the Suite on premises or in cloud.

Lutech Sinergetica + Microsoft Azure High scalability and flexibility

- Application architecture allows to separate web servers and application servers: so it's possible to scale up the system vertically and/or horizontally
- Replicate the application server in multiple instances drive to increase performance as needed

Lutech Sinergetica + Microsoft Azure Cloud Azure Infrastructure

- All Suite environments set in the Cloud on the «Microsoft Azure platform »
- «SQL Server Always ON Availability Groups» for active database at 99.99% of the time
- «Azure Traffic Manager» to redirect connections between zones based on the load of requests.



Customer Success Story 1

The Company:

The Company is one of the most important Multi-Utility Group in the market. The business domain includes the following areas: power generation, sale and distribution of electricity & natural gas, research and development of systems for cogeneration from renewable sources, trading of electricity and natural gas. Main figures:

- **Turnover: +1.400 Mln €**
- **N. Customers: +300.000**
- **Installed Power Generation: +1.800 GWh/y**
- **Energy Traded: +5.000 GWh/y**
- **Natural Gas Traded: +600 Mln Scm/y**

Business needs:

The size and the ever increasing complexity of the integrated business of the Customer requires a structured organization of information, a precise evaluation of the open position, and a careful execution of dispatching processes, in order to optimize generation and reduce imbalances. Furthermore, the complexity of the multi-asset and multi-commodity portfolio, and the adoption of specific Group policies, have made it mandatory to adopt an ETRM system for the main metrics of price risk and credit risk.

Risk:

The customer inherited most of the generation capacity from a corporate acquisition. The dispatching of the plants was entrusted by the subsidiaries to the Group Trading Company. The plants are in the availability of the electricity grid operator for the ancillary services market. It was essential to respect the implementation timeline and the overall project plan, in order not to incur burdensome imbalance penalties. At the same time a group P&L measure was necessary for internal audit and investor relation.

Target Solution:

The solution needed to support: commercial wholesale operations (OTC, EFET, brokers) with automated confirmations management; vertical processes in the IPEX platforms; operations on foreign power markets (EEX, PowerNext, NordPool, OMEL,...); trade evaluation and settlement

Portfolio optimization and risk management, EMIR and REMIT Compliance; gas logistics and storage; accounting by an a2a SAP Integration

Results and Reward:

In the first 3 months of the project, Lutech Sinergetica has released all the functionalities to cover the PFM and dispatching requirements including the ancillary service markets, and the activation of the bidding platforms. The overall 8-months project was completed without delay, and achieved the following main KPI

7 roles set up
29 users configured
4 Legal Entity
156 Counterparties listed

+7.500 deals
+1.000.000 hourly transactions on IPEX
+1,000 OTC transaction

6 Managed Commodities
10 Market Countries
10 TSO Registered
+2000 Delivery Points

+1.500 BDE (TSO dispatching Orders) managed

Customer Success Story 2

The Company:

The Company is one of the first customers of Sinergetica and important Italian Multi-Utility Group. The business domain includes the following areas: sale and distribution of electricity & natural gas, research and development of systems for cogeneration from renewable sources, trading of electricity and natural gas.

Business needs:

In 2015, five years after its foundation, the Company was struggling with the increasing volume of data that needed to be handled for its day-to-day trading operations. In particular, the company's growth was held back by its inability to properly track and manage risk. Its legacy ETRM system consisted of a custom solution that was unable to support Company's ambitious plans for expansion in new trade domains. After rejecting a costly system that was in place at a sister company, the company decided to implement a brand new, commercial, off-the-shelf solution.

Risk:

Before the transformation, manual processes were causing delays incompatible with the speed at which trading units currently operate. Monitoring risk, setting thresholds, and using this information as input for future trades was not possible with the legacy system. The absence of a tool to manage risk would make it impossible for the Company to reliably structure the desired portfolio, thereby compromising its future as a trader.

Target Solution:

In Company's plans, the new ETRM system would have to reliably model risk by integrating metrics and by performing detailed scenario analysis. Only an advanced risk engine would be able to meet the challenges previously faced without success. In addition, several commodities, asset classes, and markets must be supported to enable Company's growth plans. Finally, automated regulatory compliance with respect to the Regulation on wholesale Energy Markets (REMIT) and the European Markets Infrastructure Regulation (EMIR) was urgently required to save employees time and effort.

Results and Reward:

The ETRM transformation project helped fill this gap and provided valuable additional functionality. Risk (VaR and PaR) is now monitored in real time, enabled by automatic data capture from energy markets. This means Company can comply with adopted risk limits and closely track its profit and loss (P&L) objectives and performance. Thanks to subsequent enhancements to the initial implementation, Company successfully expanded the number of markets in which it actively trades to 11 and now has access to six transmission system operators (TSOs). It also added several previously unavailable asset classes across six commodities (power, gas, emissions, coal, certificates of origin, and energy efficiency certificates), as opposed to the two commodities initially supported. To speed up operations and improve efficiency, more than 100 "jobs" have been configured in the software to accelerate reporting, analysis, and operational activities. A total of 15 user accounts with five different roles were created.