N-SIDE

A single AI partner to solve tomorrow's key challenges

N-SIDE supports TSOs, DSOs, and ISOs in strategic and operational decisions across their key business areas, by providing innovative solutions and services with a unique combination of **advanced analytics, energy expertise, and software engineering.**

System Planning and Operation

N-SIDE supports system operators in your yearly, weekly, and real-time operation by providing :

- Novel **forecasting solutions** delivering the maximum level of interpretability to eliminate the black box effect. Our forecasting platform supports a variety of use cases, such as system imbalance, power flow, congestion, and load.

15+ companies relying on N-SIDE's Energy Forecasting platform

500+ GWh optimized annually

- **Decision-support tool for congestion management and voltage control**, to help operators identifying operational grid configurations such as topological changes. Our solution leverages Reinforcement Learning and enables welfare maximization.

- **Advanced system planning solutions** that integrate T&D grid planning, flexibility, and storage devices and support the arbitrage between multiple development scenarios.

Market Facilitation and Operation

Market clearing solution is used in a large variety of regional and local energy markets across the world, from long-term capacity to real-time balancing markets. It relies on state-of-the-art technologies to return optimal quantities and market prices.

200M€ transaction value traded

Up to 10% decrease in yearly reservation costs

Combined with our **Dynamic Reserve Dimensioning** solution, you can optimize the procurement of ancillary services. It leverages a combination of machine learning algorithms and Monte-Carlo simulations to compute the optimal reserves volume needed to reach the desired reliability target.

Our **expert consulting services** in market and algorithmic design can support you in the development of tailor-made solutions to the daily challenges you face.
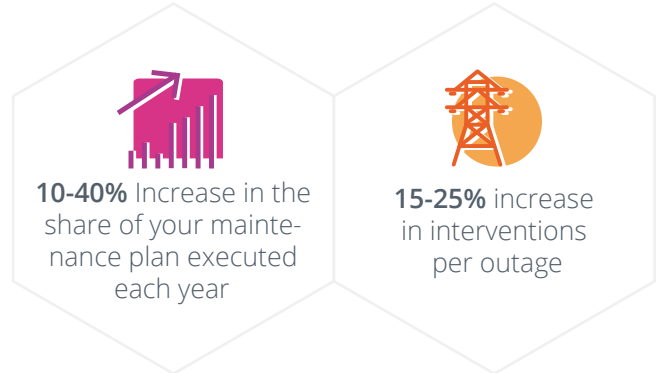
N-SIDE

⚙ Infrastructure management

N-SIDE provides decision-support solutions for infrastructure management including predictive maintenance or **optimal scheduling of planned outages and maintenance works**. The Outage Planning Optimization solution considers multiple customizable business objectives with network and resource constraints in an integrated way to quickly adapt to unexpected changes in operating conditions.

10-40% Increase in the share of your maintenance plan executed each year

15-25% increase in interventions per outage

Reduce up to **80%** the share of time dedicated to switching order preparation

From **2-3 weeks** down to **1 day-head** for outage preparation

Outage preparation

N-SIDE provides decision-support solutions for infrastructure management including the preparation of outages. The switching-order automation solution mimics the switching manual preparation process using advanced analytics and is able to provide real-time switch orders for a large variety of electrical assets.

ENABLING OPTIMAL DECISION-MAKING AT...

50hertz | Elia Group

Statnett

fluxys

ORES OPÉRATEUR DES RÉSEAUX GAZ & ÉLECTRICITÉ

elia group Elia | 50Hertz | EG