



Solutions and services for the Energy Sector

Corporate presentation - R&D



2021

Energy transition fundamentals

Overcoming the great challenges of managing more assets with less resources, interconnecting the assets to the bulk electrical system and making the most out of the produced energy.

Renewable Energy

Advanced technology to increase the efficiency and profitability of renewable energy assets.

Energy Trading

Tools based in complex algorithmics, data analysis and Machine Learning in order to optimize transactions in the electricity wholesale market.



Grid Integration

Optimization of the grid management with Renewable Energy assets, BESS and DERs.

“We understand digitization as an opportunity to redesign our customers’ business capabilities and turn them into a smarter and more competitive model by incorporating new services and management models into their processes and providing technologies such as Cloud, Machine Learning, IoT or Big Data”.

Covering the World with our Solutions

Isotrol has outstanding references in more than **41 countries** in 5 continents, with a **centralized model** that allow us to deliver our solutions remotely with a minor local presence requirements and a 24x7 Support Center for our customers

29,8 GW N.A. use our systems

23,1 GW Renewable Monitored power
6,7 GW Use our Bidding platforms

81,7 GW Europe use our systems

31,2 GW Renewable Monitored power
50,5 GW Use our Bidding platforms

11,5 GW LATAM use our systems

8,1 GW Renewable Monitored power
3,4 GW Use our Bidding platforms

2,2 GW ROW use our systems

1,9 GW Renewable Monitored power
0,3 GW Use our Bidding platforms



- Main headquarters
- Local office + Projects
- Projects

Renewable Energy

Advanced IT solutions to increase the efficiency and profitability of renewable assets



Turnkey projects with extensive know-how including engineering, commissioning and support services:

- ✓ **O&M:** SCADA, PPC, Control Center and Maintenance solutions for effective supervision and control of all plant data & maintenance tasks.
- ✓ **Technical Asset Management:** AM & performance diagnosis. Big Data technology, artificial intelligence, and the use of machine learning algorithms for early detection of problem root causes to reach new levels of efficiency.
- ✓ **Financial Management:** Strategic reports and financial analysis for stakeholders. Blunce combines all data sources of the company showing key information, providing instant answers and back up decision making process.

Blunce
Enhance your profitability.



Reliable technology partner focused in:

- Reducing operating costs
- Increase availability and energy production
- Improve energy sales revenue

Grid Management & DER Integration

Solution to optimize grid management with Renewables Energy and DERs



Maximize DSO revenues improving grid Flexibility.

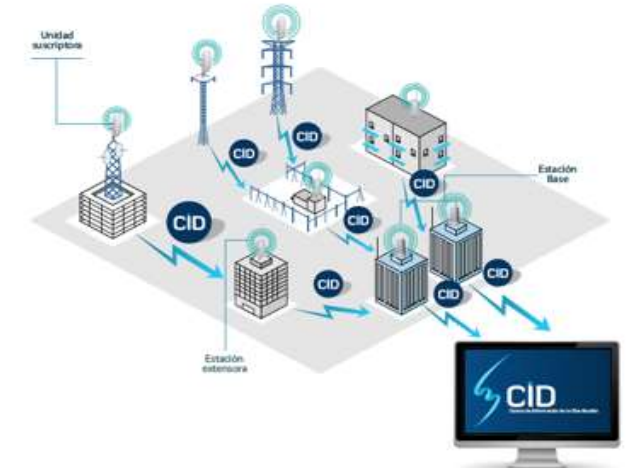
We make possible to improve grid establibity through Smart planning and operation
Solutions to grids with DER, Renewable Energy Integration and demand response.

Highlighted solutions

- ✓ **Control & Operation of storage Assets:** A flexible and simple solution for storage to provide ancillary and grid services
- ✓ **Grid Management System, and Microgrid Solutions** for planning Renewables, Storage, DER and demand response into the Grid
- ✓ **Hybrid Power Plant Controller** to fullfill the most demanding **Grid Codes**

Some of our main customers



Energy Trading Digitalization

Tools to optimize transactions in the electric energy market cycle

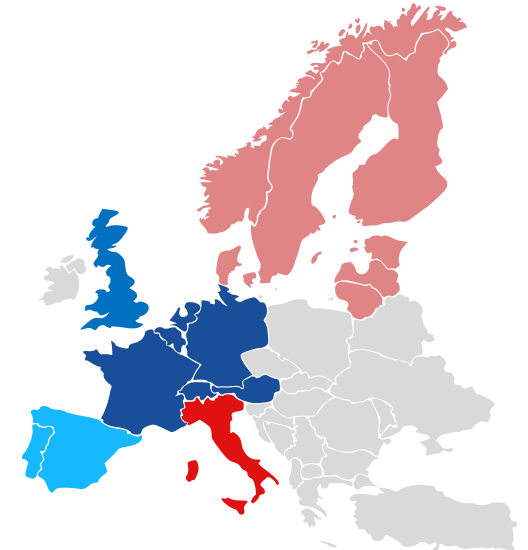


Isotrol develops high added value solutions for large energy companies in electricity wholesale markets.

More than 10 years of experience combining business consultancy, data analysis, complex algorithmics and a high technological capacity.

Highlighted solutions

- ✓ **Bidding platforms:** Automated trading systems for participation in marginal and pay-as-bid markets.
- ✓ **Market strategies and artificial intelligence:** bidding design and generation of strategies based on deterministic systems and machine learning models.
- ✓ **Forecasting and Backtesting:** Simulation and forecasting tools for wholesale electricity markets at European level.



Some of our main customers



Capacidades PERTE Renovables

Principales objetivos

Grid Integration & Flexibility

- **Energy Management: storage integration and optimization (EMS+ hybrid PPC)**
- **RES integration.** Power plant controller for ancillary services
- **Smart network planning**
- **Grid Flexibility**
- **Microgrids**

Smart O&M for renewables

- **AI-based predictive analysis for asset performance diagnosis**
- **Root Cause Analysis for renewables**
- **Maintenance recommendations**
- **Image recognition integration with SCADA**

Trading & Wholesale markets

- **AI-based Markets simulations and strategy optimization**

- 8 Proyectos de almacenamiento innovadores
- 9 Nuevos modelos de negocio en la transición energética
- 10 Despliegue del almacenamiento energético
- 14 Grandes demostradores de electrólisis
- 21 Misiones Ciencia e Innovación