History

ISOTROL IS A SPANISH CORPORATION SPECIALIZING IN INFORMATION AND COMMUNICATIONS TECHNOLOGY LENDING SERVICES TO THE ENERGY, UTILITIES INDUSTRY AND PUBLIC ADMINISTRATION SECTORS.

Established in 1984, ISOTROL has worked with multinational companies offering specific solutions while adapting to the changing demands of developing markets.

With over 250 employees and a breadth of experience, ISOTROL offers to its clients the most innovative solutions in energy monitoring and management.

ISOTROL systems are currently managing more than 400 renewable energy facilities, operating over 8 GW of power across the globe.

People

OUR PEOPLE MAKE US DIFFERENT
WE ARE PASSIONATE ABOUT MAKING A MEASURABLE IMPACT IN ALL WE DO. OUR UNIQUE CULTURE AND APPROACH DELIVER ENDURING RESULTS, TRUE TO EACH CLIENT’S SPECIFIC SITUATION

Our core business depends on our people. Highly qualified professionals who answer our client’s needs and carry out their work with passion.

Specialism and innovation are the bases of our strategy. A collaborative working style which emphasizes teamwork, trust, and tolerance for diverging opinions, in order to approach every challenge with the best solution.
ISOTROL IS AN ENGINEERING AND CONSULTANCY COMPANY SPECIALIZED IN CONTROL AND MANAGEMENT SYSTEMS WITH OVER 25 YEARS OF EXPERIENCE

FROM LOCATIONS IN SEVILLE, BARCELONA, LONDON, SÃO PAULO AND MEXICO, ISOTROL OVERSEES SYSTEMS ALL OVER THE GLOBE, WITH A CLEAR PURPOSE: TO BE PRESENT WHEREVER OUR CLIENTS NEED US.
ISOTROL PROVIDES SPECIALIZED SOLUTIONS IN EVERY STAGE OF ENERGY SUPPLY: GENERATION, DISTRIBUTION, TRADING AND CONSUMPTION, WITH THE PURPOSE OF SUPPORTING OUR CLIENTS IN REACHING THEIR OBJECTIVES AND INCREASING THEIR PRODUCTIVITY.

**GENERATION**
- Local and remote control systems
- Control Centres connected to the Transport System Operator
- Energy plants Operation and Maintenance
- Measuring, reporting and data analysis

**ENERGY TRADING**
- Energy trading simulation tools
- European Electricity Market Consultancy
- Trading strategies optimization

**CONSUMPTION**
- Control and Management Systems
- Energy monitoring in buildings and industries
- Energy Saving and efficiency advising

**TRANSPORT AND DISTRIBUTION**
- Local and remote grid and communications monitoring
- Electrotechnical consultancy
- Operation and Maintenance of electrical distributions grids
- Communications systems
**Control & Management System**

Our solutions manage over 15% of the renewable energy generated in Spain and about 3% of global wind energy. In total, more than 8 GW of renewable energy power located all over the world.

The profitability of a generating plant depends to a great extent on the technology used for its management. Thus, real-time monitoring and total control of every device's operation is key for achieving maximum efficiency.

Isotrol systems allow central supervision and management of remote plants.

Furthermore, all these plants can be connected with the Transmission System Operator (TSO), in charge of the electrical grid management.

**ADVANTAGES**
- High availability and redundancy
- Multi-plant, Multi-technology, Multi-country, Multi-user
- Compatible with every technology and manufacturer
- Easily adaptable to present and future requirements

**OUR SERVICES**
- Instrumentation and measurement
- Communications, mobility and computer security
- Monitoring Centres (also connected to the TSO)
- Local SCADAs
- Reporting and Data analysis
- Computerized maintenance management system (CMMS)
- Resourcing Planning systems (ERP)

[www.isotrol.com](http://www.isotrol.com)
Electrical Distribution Networks
Control and Management

ISOTROL HAS AN EXPERT TEAM IN GENERATION, STORAGE AND CONSUMPTION (EITHER IN HIGH, MEDIUM AND LOW VOLTAGE) WHO STUDIES PRESENT AND FUTURE SCENARIOS AND PROPOSES IMPROVEMENTS IN OUR CLIENTS DISTRIBUTION GRIDS.

Our control and supervision systems efficiently monitor electrical grids:
- Faults location
- Allowing a remote operation of isolated facilities
- Optimizing the service and the business profit
- Making faster possible replacement

ADVANTAGES
- Isotrol control and supervision systems include simulation algorithms focused on smartgrids to integrate renewable energy into the electrical distribution network.
- Easy web environment accessible everywhere, everytime via Internet
- Powerful communication systems
- Integrable with other Control Centre System (GIS, commercial systems, secondary concentrator, etc.)

SERVICES
- Electrotechnical Consultancy
- Control and Measurement
- Communications, Mobility and Computer Security
- Control systems and electrical grid management
- Remote management of meters

ADDITIONAL SERVICES
- Communications with measuring devices and remote management from the control centre
- Creation of communication networks
- Communication network monitoring to prevent failures
- Operation and Maintenance of the systems

Solutions and Services
www.isotrol.com
Electricity Market Tools

A MAIN PART IN THE ENERGY SUPPLY CHAIN IS THE PROCESS OF PURCHASING AND SELLING ENERGY WITHIN THE DIFFERENT ELECTRICITY MARKETS. THIS TRADE OF ENERGY IS NOW EASIER WITH OUR INNOVATIVE TOOLS

OUR SERVICES

- Design, supply and installation of custom-made software and Hardware solutions, including solutions for measure concentrators
- Final configuration of the tool at the client's offices
- Training for the use of the systems
- European Electricity Markets Consultancy
- System maintenance and updating

MARKET SIMULATION
- Simulation system to evaluate and optimize the different bid and offer strategies in the European electricity market

TRANSACTION MANAGEMENT
- Transaction management platforms, liquidation modules and invoicing tools for the electricity market agents (generators, traders, etc.)

PRODUCTION PREDICTION
- Tools for predicting renewable energy generation in order to minimize deviation penalties in the daily market

GENERATION MONITORING
- Electric measurements acquisition and storage from meters including secondary concentrator systems, allowing our clients an independent monitoring overview of their facilities

ADDITIONAL SERVICE
- Turkney solution in the clients installation.
- User training on how to use the system
- Generate certificate for start up and reception.
Energy Consumption Control and Management

AT ISOTROL WE ARE KEEN TO INTRODUCE A MORE EFFICIENT AND PROFITABLE ENERGETIC MODEL, ALWAYS RESPECTING OUR ENVIRONMENT. IN THIS SENSE, WE ARE CONTINUOUSLY INVESTIGATING TO DEVELOP DIFFERENT TECHNOLOGIES FOCUSED ON REDUCING ENERGY WASTE.

Through the use of different tools of measurement installed in different locations, Isotrol systems provide real time monitoring of buildings, factories, etc. with the objective of identifying anomalous consumptions and be able to provide effective solutions.

Moreover, it is possible to control the turning on, the turning off and the intensity of the different devices to get a more efficient path in the consumption of electricity, gas and water.

OUR SERVICES

- Control and management system integration
- Communication systems between the analyzers and the control system
- Training on the use of the tool

ADVANTAGES

Useful Real-time information, essential for an energetic manager to develop energy saving measures in the most critical places, times and processes of the plant.

Real time consultation of electricity, gas and water consumption, comparing with previous invoicings to detect inconsistencies or develop new saving measures.

Management of different offices of a company form the same system

Adaptable to any technology and analyser manufactured (electrical, gas, sensors, temperature, water meters,..)

Solutions and Services

www.isotrol.com
# Projects

## 13 CONTROL

**5 CONNECTED TO THE TSO**

Clients control centres to centralize the management and operation of all their facilities

<table>
<thead>
<tr>
<th>600,000 MEASURING POINTS</th>
<th>7.4 GW BACK UP</th>
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</thead>
<tbody>
<tr>
<td>Remote management of meters</td>
<td>Back-up Centre</td>
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</table>

230 electrical distribution companies use our management software. Grid managers receive accurate consumption readings to take the most efficient decisions and final clients can adjust their tariffs and modify their habits.

## 150 SCADAS INSTALLED

**8,324 MW OF LOCAL SCADAS**

Installation of local monitoring systems to operate and manage any device of the plant

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<tr>
<th>OPTIMIZING MORE THAN 200,000 MWH</th>
<th>25,000 CLIENTS</th>
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<tr>
<td>Coupling Systems</td>
<td>Grid control and management</td>
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Development of tools to simulate the new European electricity market to help our clients adapting their strategies in the new scenario.

More than 500 Transformation Centres are managed with our SCADA CID, guaranteeing power supply to over 25,000 clients.
INNOVATION AND SPECIALIZATION ARE THE FOUNDATIONS OF OUR STRATEGY FOR THE FUTURE THAT WILL ALLOW US TO KEEP GROWING.