



EMPOWERING YOUR GRID  
**EMPOWERING  
YOUR FUTURE**

ELECTRIC POWER ENGINEERING & CONSULTING



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**3,000**

Number of IDOM  
**PROFESSIONALS**

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**Areas of activity:**

INDUSTRY & ENERGY  
TRANSMISSION & DISTRIBUTION  
ADVANCED ANALYSIS  
ARCHITECTURE  
CONSULTING  
ENVIRONMENT

HYDRAULIC & HYDROLOGIC  
INDUSTRY & ENERGY  
TRANSPORT  
NUCLEAR  
TELECOMMUNICATIONS  
URBAN PLANNING

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**€350<sub>M</sub>**

**Turnover**

delivering  
professional services

**600**

**Partners**

a culture of  
engagement

**80%**

**International**

activity

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# EMPOWERING YOUR GRID EMPOWERING YOUR **FUTURE**

With 60 years of experience, IDOM is a leading international company working in all areas of the energy sector: from generation to consumer infrastructure, covering everything from strategic planning, conceptual design, the detailed engineering of small to large-scale facilities or the provision of management services.

Our multidisciplinary team of engineers, consultants and environmental specialists are working in over 125 countries delivering a full range of services to both public and private clients in the electricity sector. Among these clients are Utility Companies, Transport System Operators, EPC Contractors, Developers and Investors.

We have a wealth of experience and expertise in all features of electrical grids and all types of electricity generation technologies, not just domestic but also for large industrial consumers. This means that IDOM can offer a global approach to Electric Power Consultancy, essential for the development of next generation grids, and intelligent grids for the consumer. Reliability, load management and distributed generation are key to empowering your grid.

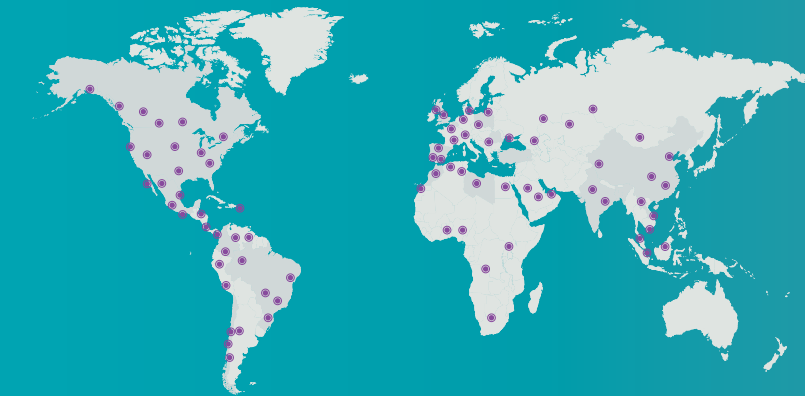


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## INDEPENDENT PROFESSIONAL SERVICES COMPANY

The competitive advantage of IDOM lies in our human capital and our global structure.

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**+ 125** COUNTRIES  
WITH  
PROJECTS

**40**  
OFFICES  
around the world

# TRANSMISSION & DISTRIBUTION

## AREAS OF KNOWLEDGE

Since 1957, IDOM has been providing highly specialized solutions for the electricity and industrial sectors, covering a wide range of products in the following areas of expertise:

**Network Planning.**

**Power System Assessment/Audits.**

**Power Regulation.**

**Electrical System Studies.**

**T&D Engineering.**

**Management and Procurement.**

**Construction Supervision.**

# NETWORK PLANNING.

## SOLUTIONS:

Load demand forecasting

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Generation strategies for large and small markets

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Planning Management: design criteria and assistance

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Isolated power systems: mining, industrial facilities

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Integration of renewable energies in TD Systems

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Efficiency improvement programs

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Grid expansion and uprating

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Undergrounding program evaluation

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Feasibility studies (HVAC/HVDC, cable links)

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Operation procedures for TSO/DSO

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**The evolution and growth of markets, the need to make different energy sources compatible with our grid systems, energy storage, and providing access to electricity in remote areas are just a few of the many challenges that motivate us to provide the best solutions for our clients.**

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# POWER SYSTEM ASSESSMENT/AUDITS.

IDOM assists Utility Companies in upgrading and evolving their facilities, providing services such as periodic analysis of specific parameters or major services to improve the levels of quality and reliability.

We work with the client on projects such as amending maintenance proceedings and logistic plans for the existing facilities, reviewing and updating them in order to reduce the impact of incidences, optimizing costs and minimizing the energy recovery time of the network in the event of incidents:

Maintenance plans and supervision (Plants, TD facilities)

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TD networks assessment: security, reliability, supply indexes

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Operation, protection and control procedures and criteria

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Automation and definition of load control programs for low capacity systems

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Energy storage applications (batteries, energy flywheels, etc.)

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Vulnerability analysis of power systems (weather, sabotages)

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Incident forensic assessments

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Evaluation of capability the adopt new technologies

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Geographical information system applications

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Conceptual design of load dispatch centres (network, renewable power plants, etc.)

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## Case study.

IDOM analyzed and modelled the impact of Delta Tropical Storms on the Canary Islands Transmission System, establishing a plan of recommendations, determining the real status of the network and its components, and defining the causes of the important damage events. In this case, IDOM implemented a maintenance plan to mitigate future climatic disasters.



The map displays the transmission system network across the Canary Islands. A legend in the bottom right corner identifies the components: a blue line for 'Línea de Alta Tensión (LHT)', a green line for 'Línea de Media Tensión (LMT)', a yellow line for 'Línea de Baja Tensión (LBT)', and a pink line for 'Línea de Tensión de Distribución (LTD)'. The map shows a dense network of lines connecting various islands, with a prominent line running through the main island of Tenerife.





## **POWER REGULATION.**

IDOM has a specialized team of expert consultants to assist the client in adapting to new regulation efficiently and effectively, minimizing impact and ensuring uninterrupted economic returns from all the company's assets:

Transaction value assessments

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Support to adapt the organizations to new markets structures, privatizations, mergers

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Energy markets design

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Capital cost compensation models for T&D facilities

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Energy pricing policies

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Private access to TD grids

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Electricity Regulatory Assistance for administrative entities

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## ELECTRICAL SYSTEM STUDIES.

IDOM EMD (Electricity Modelling Department) assists Utility Companies and Large Consumers, in adapting and optimizing their facilities, and setting values for optimal and efficient operation:

Network, generation and load modelling

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Steady and dynamic electrical studies

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Load flows

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Short circuit analysis

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Cable rating

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Specification of new units (transformers, banks, generators, batteries, switch gearing)

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Arc Flash Safety

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Harmonic Assessment

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Ground systems

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Insulation and protection device coordination

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Automation of electrical systems

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Remote control and telecomms

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A modern office interior with white desks, laptops, and a green ceiling panel. The text is overlaid on the image.

**We assist  
both Utility  
Companies  
and Large  
Consumers.**

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## T&D DESIGN.

IDOM designs electric power transmission and distribution facilities for Utility Companies, Generation Companies, Refineries, Large Manufacturers and EPC Contractors:

Master plans

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Specifications and standards

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Tender evaluation

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Construction general support

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Procurement Services support

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Special Equipment design (Advanced Design)

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Conceptual, detailed engineering and technical assistance for:

- Overhead lines HVAC/HVDC
- Cables HVAC/MVAC/HVDC
- AC Substations
- Refurbishment of HV substations
- HVDC Converter stations
- Operation Centres
- HV Labs
- Energy Storage Systems
- Smart Grids



**One stop  
shop for all  
the client's  
requirements.**

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# MANAGEMENT & OWNER'S ENGINEERING SERVICES.

IDOM has developed successful methodologies and processes to assist the client in the implementation of their investments. We offer excellent Project Management and Owner's Engineering Services, which are flexible, multidisciplinary, highly specialized, and meet the needs and objectives of the client for their electrical infrastructure, both private industrial facilities and utility networks:

Project Planning

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Cost Estimate Services

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Project Evaluation and Consistency Analysis

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Due Diligence

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Project Control

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Design and Construction Management

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