Finding the optimal digital solution

We help our customers write the future of the energy transition and industrial digitalization.
3D's Trend
Three major trends of the energy sector

Today, the electrical system is under a transformation process, involving the 3D's trend: Digitalization, Decarbonization, and Decentralization.

Digitalization is the process of moving to a digital business that is using digital technologies to change business models and provide new revenue streams and value producing opportunities.

The main objective in the energy sector is the decarbonization, and one of most extensive interpretation is that this is going to be achieved through digitalization.

Decentralization is also impacting the energy sector, and digitalization has a key role. Digitalization provides the capability of perform an exhaustive control, supervise the system, and also it reduces the operational costs.

We can support our customers to deal with these challenges by finding the optimal digital solution through our deep understanding of the energy sector and our customers' business.
How can we help?  
Our added value

**New technologies**  
Knowledge of the latest technologies and their potential benefits for final customers, and how they can be implemented in the energy sector.

**Technical knowledge**  
Through our experience on performing grid studies, we have extensive understanding of the technical behavior of the electricity grid and its assets.

**New actors and network management**  
Network management and demand response can be present in different forms, and Power Consulting understands how to exploit its benefits in order to ensure the grid stability.

**Market and regulation**  
We have a deep understanding on the complete value chain of the electric market and all the applicable regulation.

**New systems and technologies**  
Awareness of the latest technological trends and how they can be integrated in the management system to optimize their strengths.

**International presence**  
Power Consulting has a presence worldwide with extensive experience in the energy sector.
Digitalization Solutions
We tailor our solutions just for you

We collaborate with Transmission and Distribution System Operators to optimize their process and control more efficiently the electricity and its measurement.

ABB Power Consulting supports the Industrial sector to optimize their process, control energy more efficiently, and reduce the energy use and related cost.

Our consultants also support Other customers, such as generators, to monitorize and manage their energy usage and consumption. Also they provide assessment on technical solutions and requirements.

Our Digitalization Practice helps Public entities to understand the regulation and to implement the most feasible technologies according to their needs in their systems and operations.
ABB Power Consulting Solutions

Our services

**Metering infrastructure**
- Advance Metering Infrastructure (AMI) and Remote Meter Reading (RMR) solutions
- Head End Systems (HES)
- Knowledge of applicable standards
- Expertise in the evaluation of solutions to be implemented

**Communication protocols**
- Extensive knowledge and experience in communication protocols based on their implementation assessment:
  - Smart metering communications and its security features
  - SCADA communications and substations communications

**Big data analytics**
- Big Data “ad hoc” solutions to perform information analysis
- Supporting how to collect, store, treat, and protect the information and their outcome
- Data analysis based on users requirements, power quality analysis, and online monitoring

**Cybersecurity**
- Security recommendations based on international extended practices and standards
- Analysis of security compliance based on regulation requirements and international standards
- AS IS vs TO BE assessments

**Smart grids**
- Support smart grids and smart cities deployment and solutions to be implemented
- Assessment on additional solutions which provides more smart functionalities to the grid

**Regulatory support**
- Evaluation of impact of new regulatory measures
- Impact assessment of new technological trends in the current regulation
- Study and support on evaluation of regulatory framework compliance

**Software solutions**
- Support projects by the generation of ad-hoc software applications based on the requirements
- Tools automatization for efficiency improvement

**New technologies**
- Blockchain technology implementation assessment
- Cloud and Internet of Things (IoT) implementations
- Machine learning and Artificial Intelligence algorithms
- Virtual/Augmented reality tools

**Automatization**
- ABB Ability can provide integrated solution to manage and control the systems facilitating further analysis
- Support energy efficiency through process automatization

**General services**
- Digitalization penetration level assessment/audits
- End-to-end assessment for energy monitoring and efficient consumption
- Energy management systems assessment and implementation
- Management of other energy actors
- Perform technological/digital solutions benchmarks to provide an overview of the sector
- Technical requirements assessment
- Cost benefit analysis of digital solutions