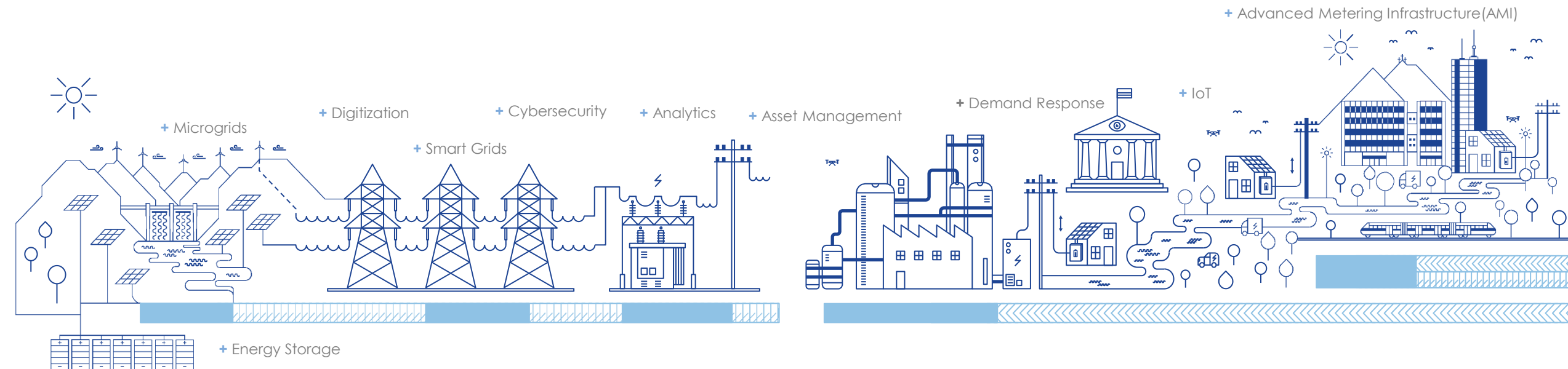




Potencia y Tecnologías Incorporadas

WE BELIEVE IN ENERGY AS DRIVER TO CONTRIBUTE TO THE DEVELOPMENT OF OUR COUNTRY AND REGION

We put at reach of all players in the electric power value chain the necessary technologies and solutions for a successful and efficient development of their projects, so we can count on the highest quality energy.



OUR COMPANY

NOW
WE
ARE



Sustainability
Economic, social and
environmental focus.

22

Years in the
energy market

+170

Employees in engineering,
consulting, projects and
technical support

ISO 9001 & 14001/ ISO 45001/RUC

Certificates which show our quality management, and our commitment to the environment and the occupational safety and health.

R + D + i Group

OFFICES

Colombia

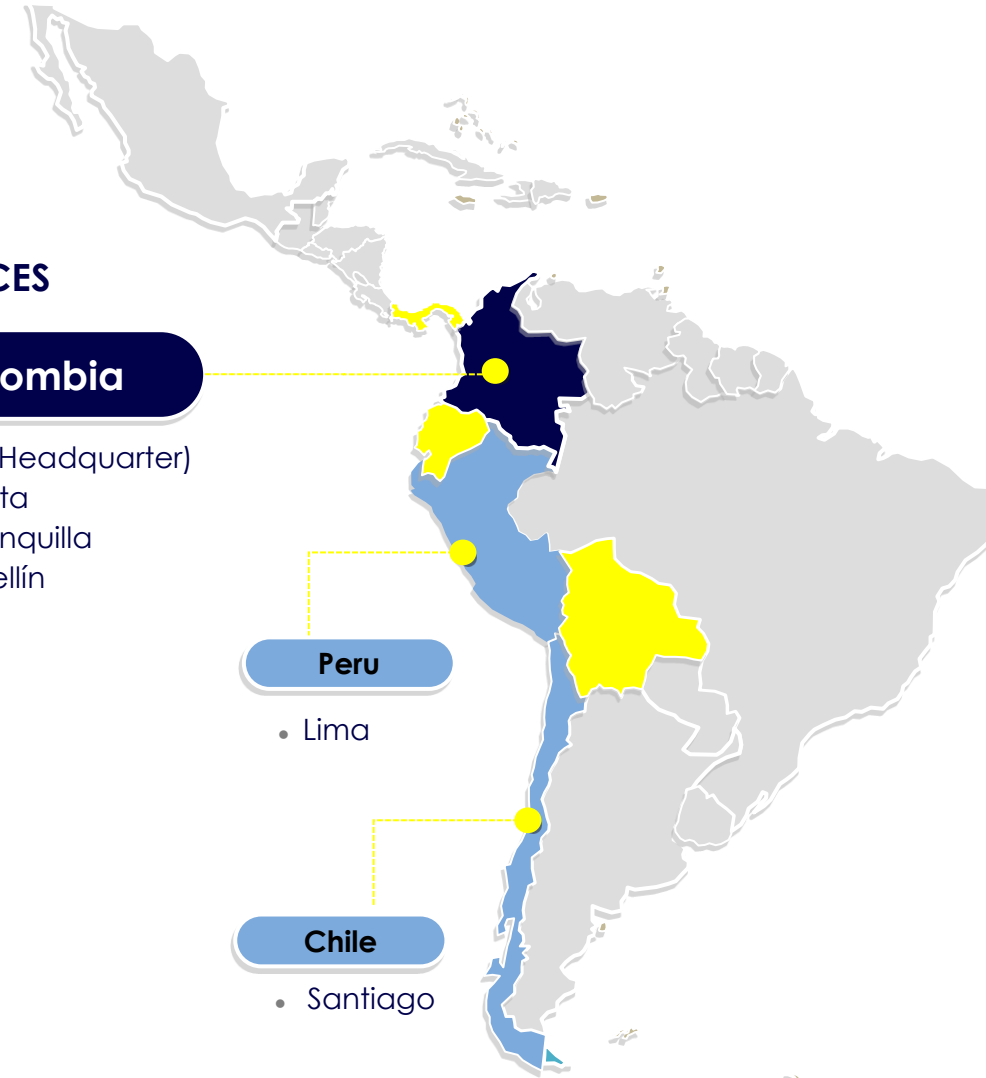
- Cali (Headquarter)
- Bogota
- Barranquilla
- Medellín

Peru

- Lima

Chile

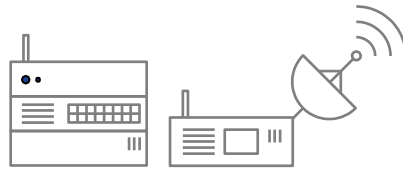
- Santiago



WHAT WE DO

We understand that needs of each client and of each project are different, thus we are able to offer customized and comprehensive solutions, with a high level of quality, efficiency and effectiveness, virtues which are translated into economic efficiency for our customers.

ENGINEERING



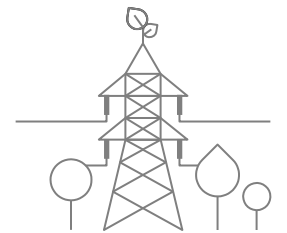
TECHNOLOGIES

We permanently perform technological surveillance and establish strategic alliances with leading technology companies around the world, representing products and solutions of the highest quality, which allow us to respond to the current and future market needs.

We are a group of people with a high level of specialization, so that our clients are backed by experts regardless the challenges to overcome.

Our search for the best results is always accompanied by social responsibility and sustainable innovation, at an economic and environmental level, making PTI the best partner for project development.

SERVICES



OUR VALUE PROPOSITION



OUR PORTFOLIO



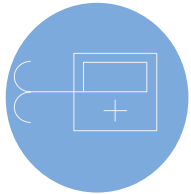
OUR PORTFOLIO



Telecontrol, automation and protection; monitoring, digitalization and virtualization



Power systems analysis and real time solutions



Power apparatus, instrumentation and power quality



Electrical projects, services and tests



OUR PORTFOLIO



Telecontrol, automation and protection; monitoring, digitalization and virtualization



Analysis of power systems and real time solutions



Power, instrumentation and power quality



Electrical projects and tests



- + Substation digitization and virtualization.
- + Retrofit / Automation of S/Es.
- + Cybersecurity for electrical systems.
- + Telecontrol and Automation for distribution systems.
- + Automatic fault analysis and data collection.
- + Remote monitoring and management of critical variables.
- + IoT applications.

TECHNOLOGIES



- + Gateways.
- + Industrial communication switches.
- + Control, automation and protection equipment.
- + PMUs, AMUs, Controlled Switching Devices.
- + Industrial Connectivity equipment.
- + Satellital Communication M2M.
- + Real time asset monitoring.

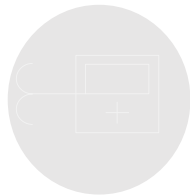
OUR PORTFOLIO



Telecontrol, automation and protection



Power system analysis of and real time solutions



Power, instrumentation and power quality



Electrical projects and tests



- + Power systems Design and Analysis.
- + ADMS (GIS, SCADA, DMS, OMS).
- + Advanced analytics (intelligent load shedding, AGC, others).
- + Microgrids.
- + Grid code validation.
- + Energy Efficiency.
- + Real time dynamic simulation of electrical power systems, digital twins.
- + Real time electrical systems emulation, virtualization and digitalization.

TECHNOLOGIES

- + Power system analysis software.
- + Real time comprehensive platform for power system management and simulation.
- + Real time electrical systems monitoring.

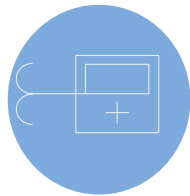
OUR PORTFOLIO



Telecontrol, automation and protection



Analysis of power systems and real time solutions



Power, instrumentation and power quality



Electrical projects and tests

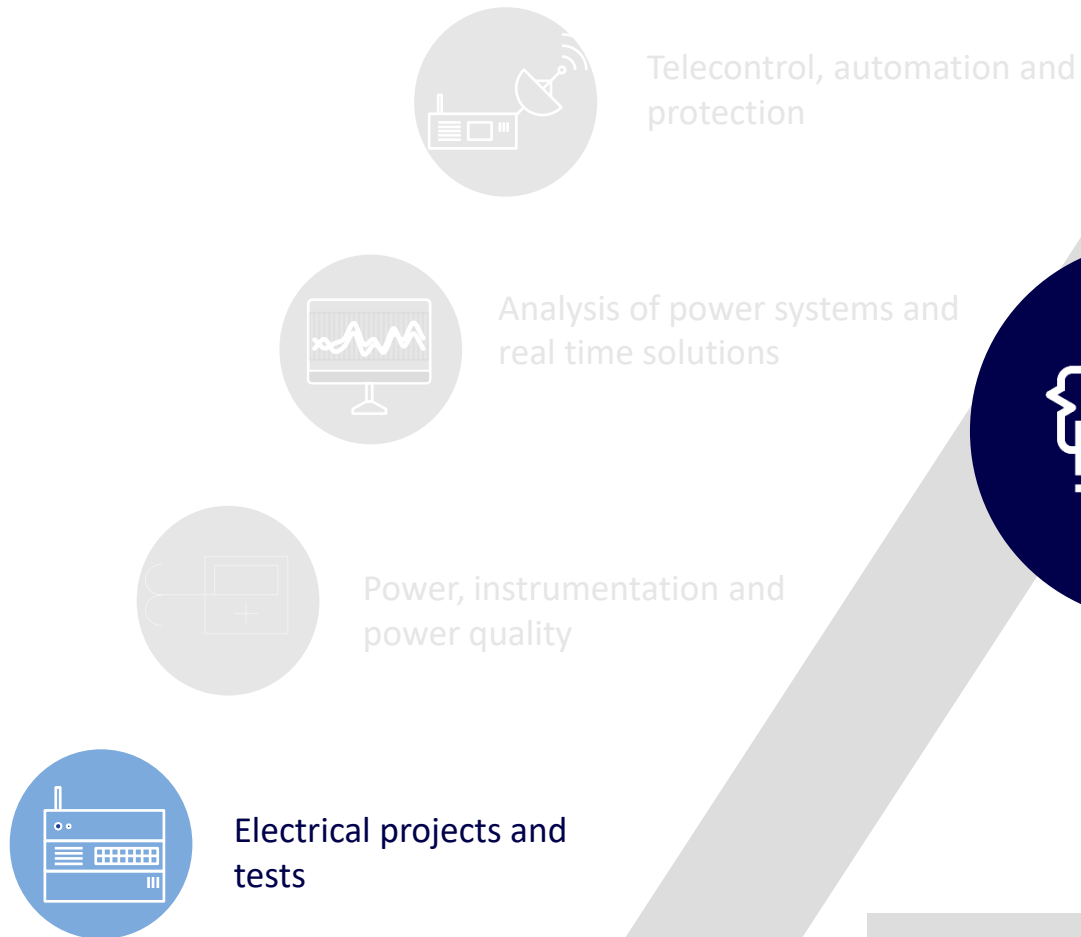


- + Distribution grid automation.
- + Remote fault detection and location in distribution grids.
- + Power quality improvement.
- + Condition based maintenance.
- + Cable rejuvenation technology.

TECHNOLOGIES

- + Reclosers.
- + MV Switchgears.
- + Fault indicators.
- + Submersible transformers.
- + MV capacitors.
- + Primary and secondary metal clad switchgears.
- + HV & MV instrument transformers.
- + Electrical parameters monitoring systems.
- + HV & MV Disconnect Switches.
- + Electrical test equipment.
- + Power Transformers.

OUR PORTFOLIO



STUDIES

Consulting, engineering and electrical studies:

- + System analysis
- + Protection coordination.
- + System stability.
- + Energy quality and efficiency.
- + Grid Code compliance, analysis and validation.

+ Special and routine tests on transformers, LV, MV & HV apparatus, protection relays, meters, transducers, energy meters. cables, earthing systems.

ELECTRICAL TEST

+ Partial discharge tests, energy quality measurements, step and contact voltage, ground resistivity and earthing, power factor ($\tan \delta$), Excitation current, VLF tests and $\tan \delta$ in medium voltage cables, High-pot, primary and secondary injections.

PROJECTS

- + EPC projects.
- + Construction and retrofit of MV/HV substations.
- + Construction of MV overhead lines and underground networks.
- + Construction of MV/HV industrial electrical installations.
- + Substation digitization and virtualization.

OUR PORTFOLIO



Advanced Metering Infrastructure



Asset Investment Planning and Management (AIPM) | Asset Management Analytics



Non-conventional renewable energy



Digital Substations



Real time simulation laboratory



Battery Storage Systems



OUR PORTFOLIO



Advanced Metering Infrastructure



Asset Investment Planning and Management (AIPM) | Asset Management Analytics



Non-conventional renewable energy



Digital Substations



Real time simulation laboratory



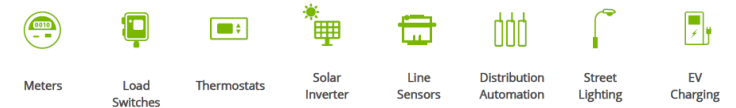
Battery Storage Systems



Landis+Gyr

Advanced measurement for utilities under a unique multifunction platform. Applications which allow to collect data, manage demand, control residential networks, manage interruptions, perform analytics on the distribution network, among others.

Grid Analytics Demand Response Meter to Cash Consumer Tools Network Management Streetlight Control Distribution Automation



TECHNOLOGIES

- + Centralized AMI.
- + Smart Meters.
- + MDM (Master Data Management).

OUR PORTFOLIO



Advanced Metering Infrastructure



Asset Investment Planning and Management (AIPM) | Asset Management Analytics



Non-conventional renewable energy



Digital Substations



Real time simulation laboratory



Battery Storage Systems



Solution for planning and management of investments. It helps companies decide where and when to invest to optimize performance, ROI and manage risk.

AIPM: Asset Investment Planning and Management.

Asset management analytics.

TECHNOLOGIES

- + Software C55.
- + Assets health management platform.
- + Operational optimization tool for transmission assets

OUR PORTFOLIO



Advanced Metering Infrastructure



Asset Investment Planning and Management (AIPM) | Asset Management Analytics



Non-conventional renewable energy



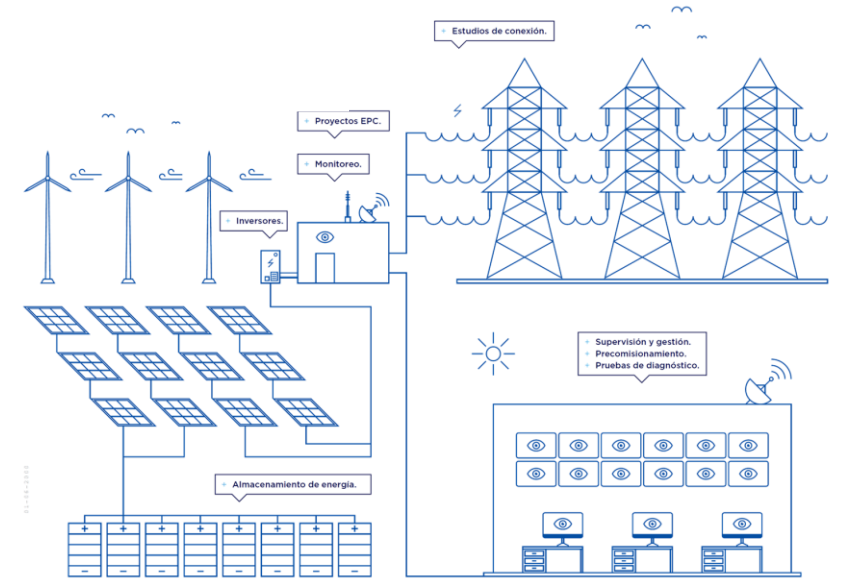
Digital Substations



Real time simulation laboratory



Battery Storage Systems



- + EPC projects.
- + Connection studies.
- + Microgrids control and management.
- + Supervision and management system.
- + Battery Energy Storage Systems.
- + Electrical tests and systems commissioning.

OUR PORTFOLIO



Advanced Metering Infrastructure



Asset Investment Planning and Management (AIPM) | Asset Management Analytics



Non-conventional renewable energy



Digital Substations



Real time simulation laboratory



Battery Storage Systems



- + Turnkey solutions for substations digitization and virtualization
- + Substation secondary systems engineering.

TECHNOLOGIES

- + Gateways.
- + Optical measurement transformers.
- + IED's.
- + Merging Units.

OUR PORTFOLIO



Advanced Metering Infrastructure



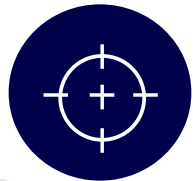
Asset Investment Planning and Management (AIPM) | Asset Management Analytics



Non-conventional renewable energy



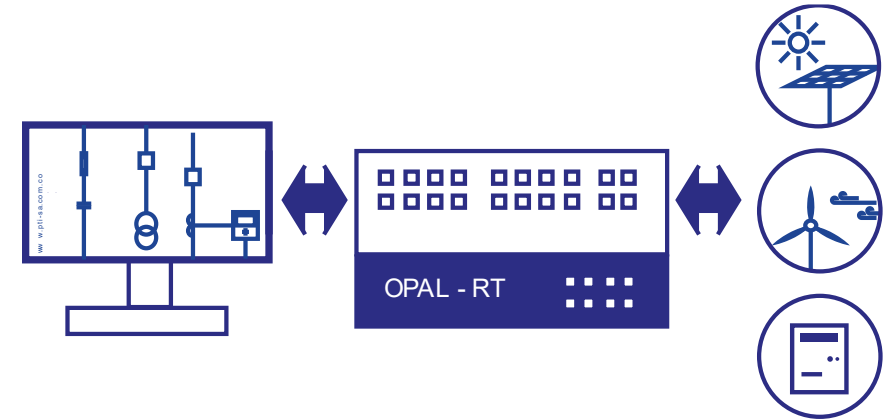
Digital Substations



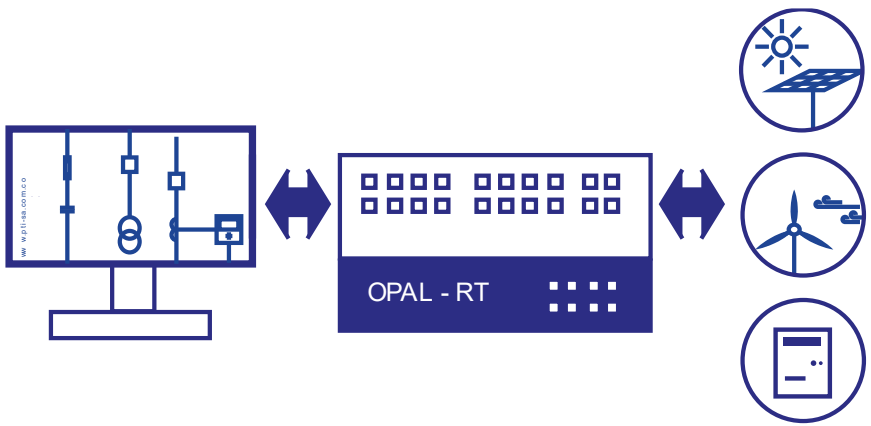
Real time simulation laboratory



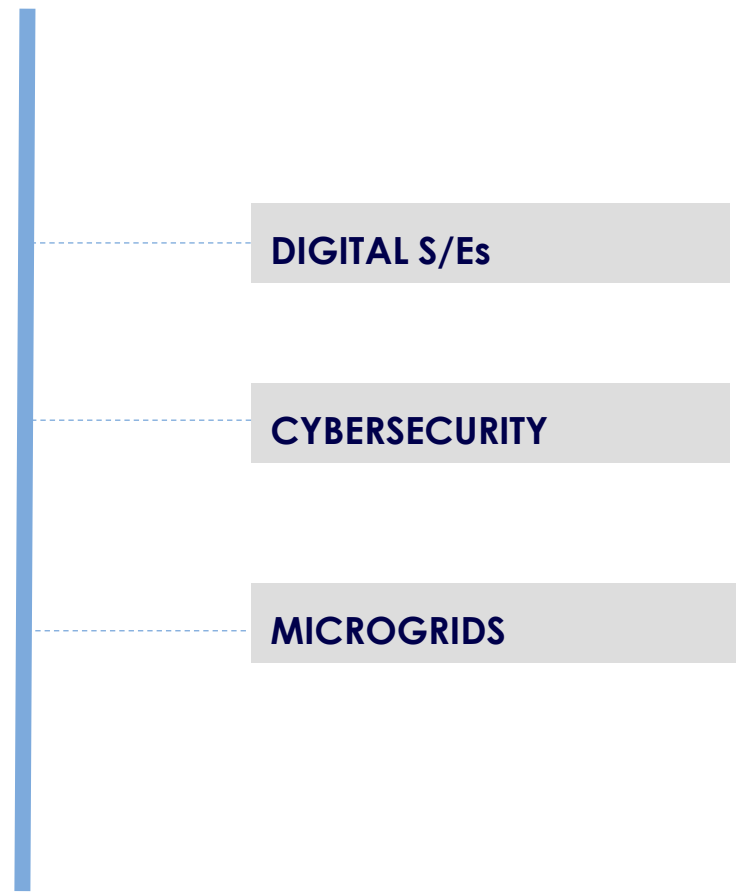
Battery Storage Systems



REAL TIME SIMULATION LABORATORY



Real-time Simulation Laboratory is a platform to analyze the operation of the electrical system and ensure reliability and safety.



Accuracy in pre-commissioning analysis



Reduction of costs, time and risks in commissioning



Efficient simulation of systems with frequent topological changes



Validation of new planning, operation and management strategies

OUR PORTFOLIO



Advanced Metering Infrastructure



Asset Investment Planning and Management (AIPM)



Non-conventional renewable energy



Real time simulation laboratory



Battery Storage Systems



Microgrids and utility scale solutions.

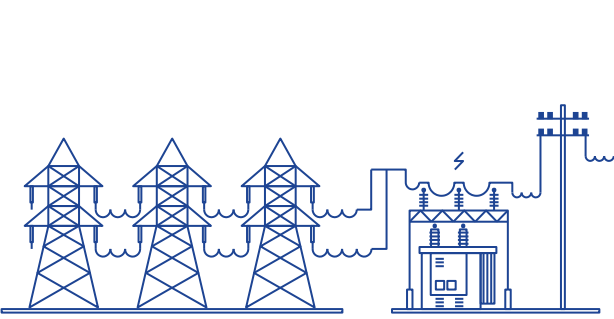
- + Congestion relief.
- + Frequency regulation.
- + Peak shaving and investment deferral .

TECHNOLOGIES

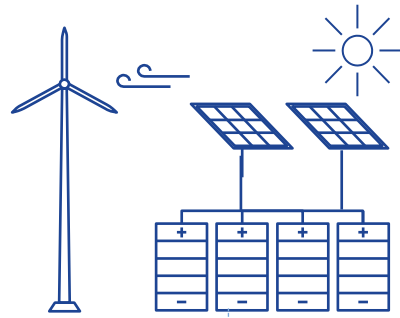
- + Network services.
- + Microgrids.
- + Demand Response.
- + Plant remote management.

CUSTOMERS SEGMENTS

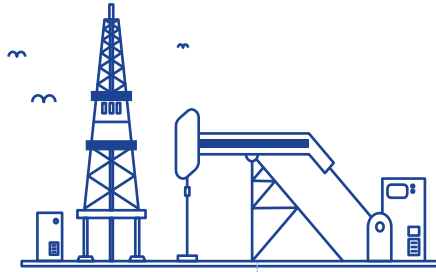
We design solutions for companies in different sectors, always at service of electrical infrastructure for our country and region, so we can count on the highest quality energy.



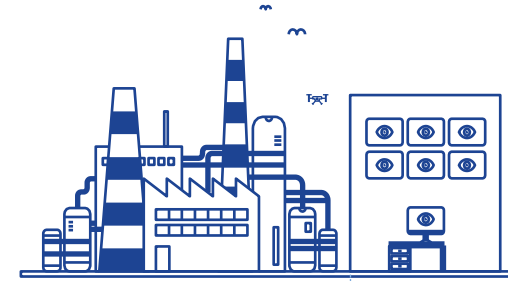
UTILITIES



NCRE



OIL & GAS



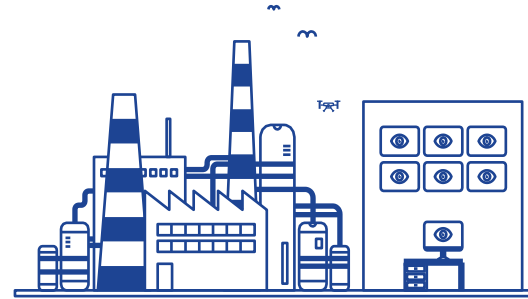
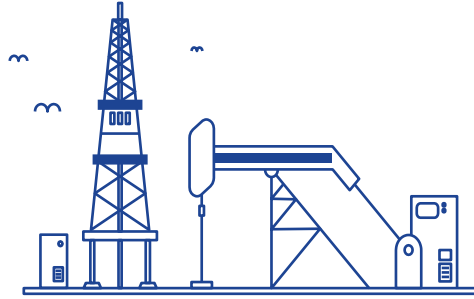
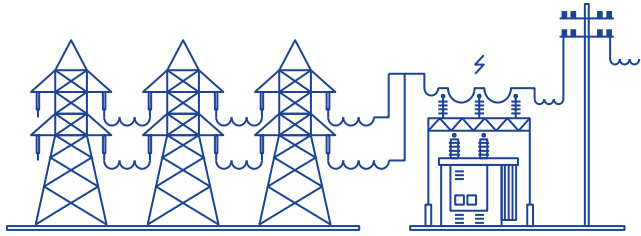
INDUSTRY



ACADEMY

OUR CUSTOMERS

We design solutions for companies in different sectors, always at service of electrical infrastructure for our country and region, so we can count on the highest quality energy.



EXPERIENCE



Architecture design, implementation and maintenance of BusStation IEC61850 en **+100 E. Substations 500/220/115 kV** .



Supply, assembly and integration to SCADA systems of **+6000 reclosers and underground switchgear**.



Architecture design, supply and commissioning for the integration of multi-brand relays in **+100 AT/MV substations**.



Architecture design, supply and commissioning of a redundant and cyber-secure communication system for the interconnection of **+30 substations**

EXPERIENCE



Architecture design, supply, implementation and reports generation in **+50 substations**.



Updating control, protection, measurement and communication systems in **+150 substations**.



Calibration and adjustment of control, protection, measurement and power equipment in **+8 power-generating companies**, **+20 power system operator** **+50 industries**.



Construction and intervention of **+150 bays all around country**.

WHY CHOOSE US

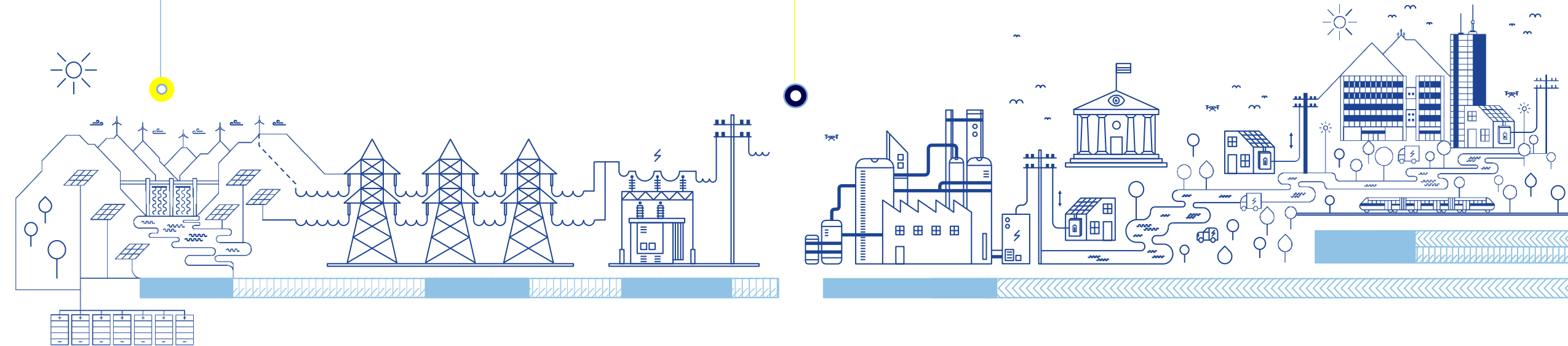
TECHNICAL SUPPORT

KNOWLEDGE TRANSFER

EXPERIENCE

AFTER-SALES SERVICE

QUALIFIED STAFF





THANKS

Let's schedule a meeting

pti@pti-sa.com.co



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