OUR VISION OF SMART CITIES

The intelligent energy network (Smart Grid) is the foundation of every Smart City. Today’s cities consume 70% of the energy. Smart Buildings accounting for 40% of energy use provide customers with information about their usage to make smarter decisions.

Smart Building is the key to provide intelligent integration of distributed renewable energies, energy storage and electric vehicle charging stations.

Our experts provide the grid by measuring electrical parameters (current and voltage) and AC and DC, also information sent to our customers remotely and share real-time data of their equipment.

By working closely together with our OEM customers, we provide innovative, accurate, reliable, easy-to-install, non-invasive sensors for better performance on the grid and smarter cities.

INDUSTRY 4.0

AC CURRENT MEASUREMENT

| L | V | P | T 
|---|---|---|---
| 1 | 1 | 1 | 1

Flexible Rogowski Coil

Phase Current Transformer

Smart Home / Building / Industry

Smart Infrastructure: The Grid links the major sites and multi-buildings power generation

Our activities:

- Act as a pure-play component company
- Produce components for electrical parameter measurements
- Offer full-calibration customized private label portfolio
- Support innovative Smart-ups
- Smart metering standards, IEC/IEEE

At the heart of Smart Cities

Smart Mobility

Electric car charging is an integral part of any Smart City

Green Power Generation

Energy efficient buildings are at the heart of any Smart City
**OUR APPLICATIONS**

- **Power Generator**
  - The electricity is conducted to the network and measured at the output of the generator through the AFI current sensors, which are connected to the energy meter.

- **Home Energy Management (HEM)**
  - LEM's AFI-ATO current sensors inform the occupants of their energy use by displaying the total amount of energy consumption in order to better control consumption.

- **Battery Monitoring System (BMS)**
  - Automated, compact and simple to install, home energy storage with BMS + AFI current sensors allows independence from the grid, emergency backup and avoiding peak demand rates.

- **MV/EP Substation**
  - A Smart Meter installed in the UV panel measures the transformer’s health with non-intrusive AFI current sensors allowing safe commissioning on a “live” transformer.

- **Submetering**
  - To reduce the electricity consumption in a building, the LEM’s AFI-ATO/WAT energy solution provides site managers and users with the power consumption of equipment, departments, floors, buildings...

- **HV Charging Station**
  - The challenge is to provide fast charging without stressing the energy grid with multiple AC/DC chargers. The charger uses the AFI sensor to measure the AC current.

- **Solar Power Plant**
  - The detection of any defective solar string, reducing the total output of the installation, must be made in real time. A simple way to detect this problem is by using AFI current sensors produced by each group of strings with the CMR transducer.

**OUR CONTACTS**

**ENERGY SENSING FOR SMARTER CITIES**

LEM has local roots but global reach with same quality around the world!

**INDUSTRY 4.0**

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At the heart of any planet’s energy measurements.

**Application Guide**

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