

Conserve and optimise energy consumption

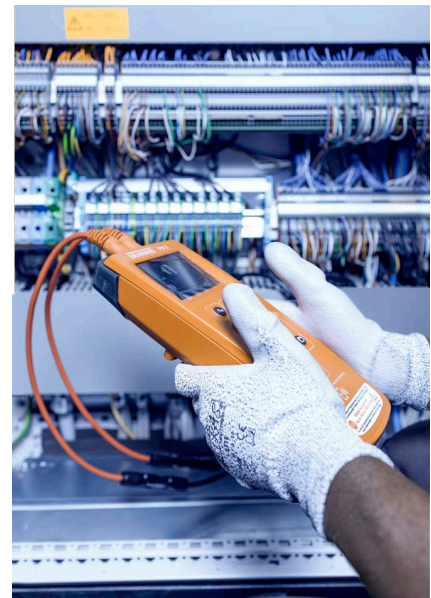
leadec

# Energy Efficiency Solutions

If you are looking for a competent business partner for energy-related maintenance services for your facilities, Leadec can help you. We support you in conserving and optimising energy consumption, securing a stable energy supply to avoid unplanned shutdowns of operations, and reducing energy-related costs and greenhouse gas emissions. Our experienced technicians reduce energy waste and losses, enhance efficiency through technological upgrades, and run energy audits to identify energy savings.

## Energy conservation

High consumption and waste of electrical and heating energy in your facilities increases the cost of energy bills. Improving energy conservation is therefore crucial to reducing your energy consumption, lowering energy costs, and enhancing sustainability. At Leadec, we have the expertise, experience, and tools to help you implement robust energy conservation measures. To do so, we support you with incident management and 24/7 on-call service, as well as preventative and corrective maintenance. We use an energy profiling system to identify inefficient appliances with high energy consumption. We also monitor devices, make suggestions as to how to shift loads to off-peak hours, and train energy users to change behaviours and habits. In addition, we offer solutions that leverage user behaviour detection to accurately identify the equipment needed for specific activities.



## Leadec's approach to energy optimisation

Leadec's energy specialists provide you with comprehensive energy optimisation strategies to reduce your energy and maintenance costs and increase the lifespan of equipment. To investigate energy consumption and identify areas for potential savings, we support you with energy audits. We collect and analyse energy consumption data, such as utility bills, energy usage records, and equipment specifications. Furthermore, our experts use specialised instruments and equipment to measure and evaluate energy performance, including infrared cameras, data loggers, and energy meters.

After conducting energy audits to identify potential energy savings, we assist you in implementing simple yet effective measures to optimise your energy consumption, such as: checking and replacing electric motors in production equipment, maintaining HVAC equipment, installing consumption meters and modernising the energy system. We can help you save up to 30% on your energy costs while improving your environmental performance and operational efficiency.

## Energy optimisation roadmap

### 1. Energy efficiency audit

- Energy audit according to DIN EN 16247 (GUTcert)
- Energy analysis and evaluation according to ISO 50000 series standards 50001, 50003, 50004, 50006, 50015, 50047
- Energetic process assessment and elaboration of significant energy use (SEU)
- Identification of influencing factors according to ISO 50006 and ISO 50001
- Basics: modelling of energy consumption according to ISO 50006
- Creation of the baseline and application for monitoring
- Assessment of the current energy consumption

### 2. Optimisation and automation

- Upgrade to energy-efficient technologies such as intelligent HVAC systems and LED lighting, switch boxes, control cabinets
- Automation: retrofit of machines to optimise energy and resource consumption; developing and designing new hardware and software for machines, e.g., smart control for blast furnace
- Optimisation: retrofit of machines or test benches, e.g., more energy-efficient machines or engines for test benches



### 3. Real-time energy monitoring

- Use of IoT and energy monitoring software to gather precise utility and performance data in real time
- Creation of databases and recording of consumption
- Definition of workflows and processes

### 4. Continuous improvement

- Regular analysis of data on energy use and installation of innovative solutions
- Establishment of key performance indicators (KPIs) and periodic monitoring of energy consumption metrics