



PAT WILLIS SOLAR POWER & MICROGRID SOLUTIONS

All-In-One IoT Energy Management



SOFTWARE FEATURES

Based on **Pat Willis** hybrid technology, **IOT Smart Solar Street Light Control System** enables intelligent management of the lights by PC, PAD and Mobile Phone, which facilitates maintenance tremendously.



Software features includes



GPS Map



Failure Warning



Historical Data Record



Remote Management of Lighting Modes



Authority Management

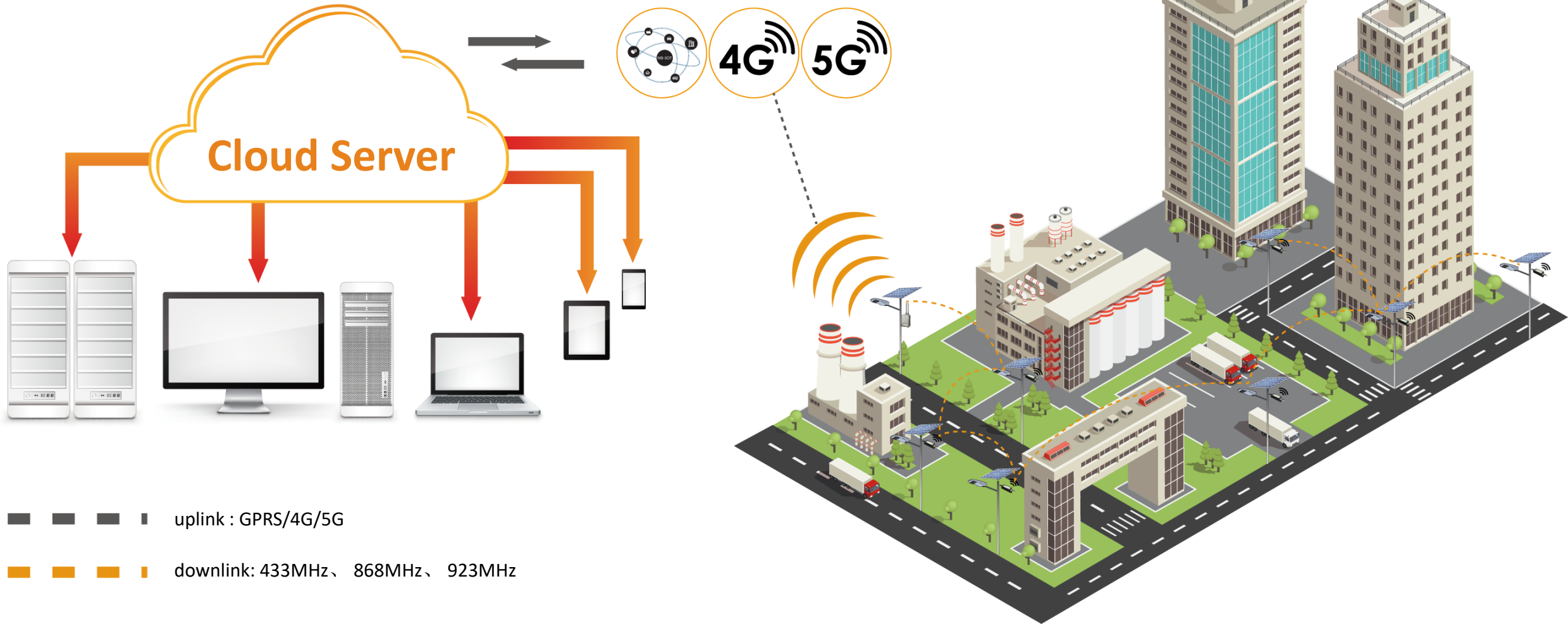


Remote ON/OFF Switch



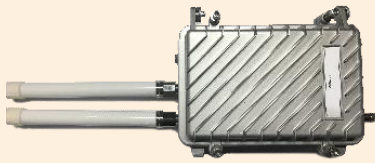
Working Condition Monitoring

PAT WILLIS WORKING DIAGRAM

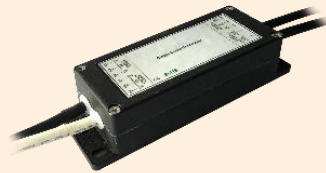


PAT WILLIS WORKING DIAGRAM

MONITORING COMPONENTS



Concentrator
INL-SLCET200LR



Wireless Collector
INL-SLCWC16LR

Features

1. Communication with 433Mhz, 868Mhz, 923Mhz.
2. Remote real time control and monitor on the lamps, scheduled lighting by group or individual lamp.
3. One lamp needs one **Wireless Collector**.
4. One **Concentrator** connects 1000pcs **Wireless Collectors**.
5. Max transmission distance between **the Wireless Collector** and the **Concentrator** is 1 KM in urban area and 2KM in rural



maximum distance 1.2km

Each concentrator maximum manages 1000 lamps

maximum distance 6km (In urban area with obstructions)

maximum distance 15km (In rural area with few obstructions)

PAT WILLIS MONITORING COMPONENTS

Each solar lighting system is equipped with one wireless collector which is connected with the smart controller



Wireless Collector	
Frequency	433M/868M/923M
Communication Standard	IEEE 802.15.4g
Number of Relay	Once
Data Reading	voltage, current, active power, power factor, active energy consumption
Time of Lighting On	Yes
Relay ON/OFF	Yes
Lamp Failure	Yes
Options	RTC, GPRS, Pole Tilt

PAT WILLIS MONITORING COMPONENTS

One solar lighting system group equips with one concentrator, one concentrator can cover an area of 15KM diameter area and can connect 1000pcs lamps maximum



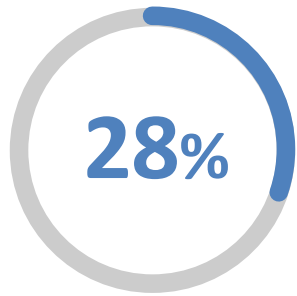
Concentrator	
Frequency	433M/868M/923M
DO	Dry node output
DI	Dry node input, DICOM terminal
Voltage Detection	Yes
Current Detection	Yes
Communication Module	GPS/LTE Module
RS485 Port	Support multiple external expansion module for communication control
Ethernet Port	Local network communication
USB Port	Upgrade and Debug with USB disk



SOLAR POWER & MICROGRID SOLUTIONS

HARNESS POWER OF THE SUN

Homes & Businesses are demanding more choice and control over their energy at a lower cost by considering alternative energy sources.

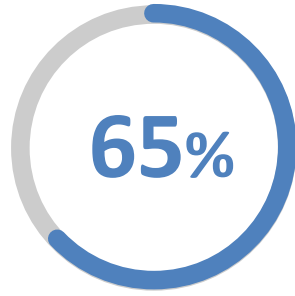


Global energy consumption is expected to rise by 28% by 2040



Roof mount

Install Solar panels on a roof. This straightforward option is generally the most cost-effective.



Demand for electricity will increase by 65% by 2040



Ground mount

Install Solar panels on the ground, on-site or at another location with this versatile option.



SOLAR POWER SYSTEM



30kW/60kWh Off-Grid Solar System

We offer solar power system comprising of solar panels, batteries, a controller & inverter. It operates by harnessing sunlight through the solar panels, converting it into electricity, which is then stored in batteries via the charge controller. The inverter later converts this stored DC electricity into usable AC power for various applications.

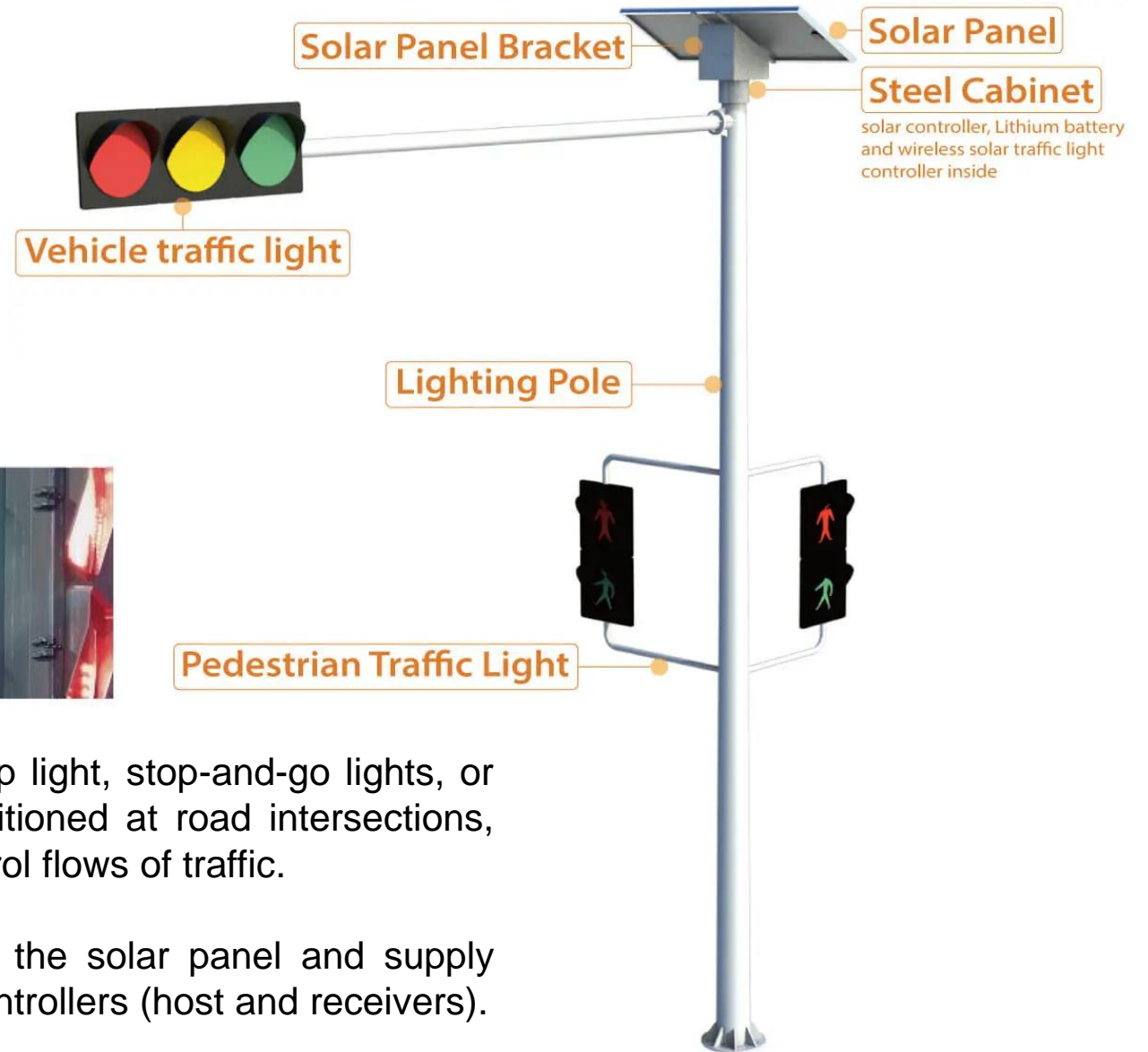


Alternative 5kWh 48V Wall Mounted Battery

- Compact High Capacity: With a storage capacity of 5kWh, this battery provides substantial backup power, ensuring your servers stay online during power interruptions.
- Easy Installation: The 5kWh 48V Server Rack Battery is designed for easy installation, allowing for quick and efficient setup.
- Cost-Effective: By providing a source of backup power, this battery system can help prevent costly downtime and data loss.

SOLAR TRAFFIC LIGHT

We offer solar powered traffic lighting system. The solar traffic light system is completely powered by solar energy and does not need to be connected with the city electricity grid.

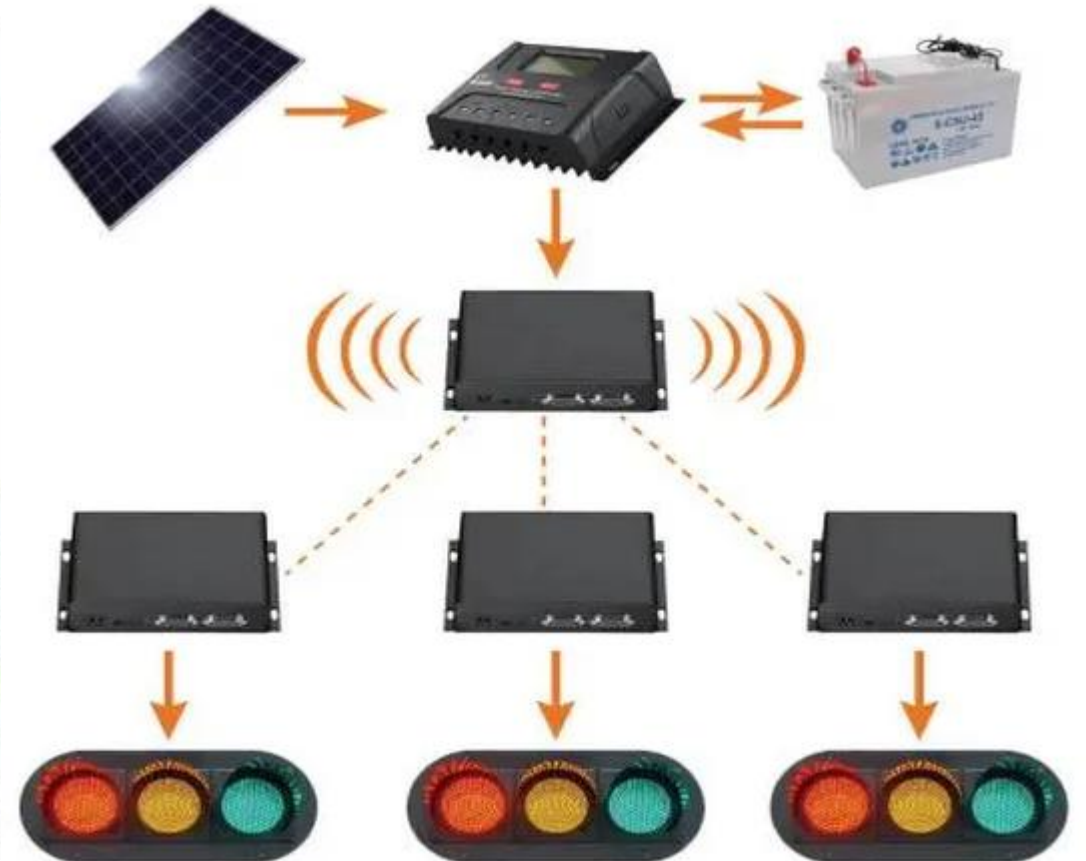


A traffic light, also known as a traffic signal, stop light, stop-and-go lights, or traffic control signals, is a signaling device positioned at road intersections, pedestrian crossings, and other locations to control flows of traffic.

In the daytime, the battery will be charged by the solar panel and supply energy to power up the traffic lights and traffic controllers (host and receivers).

WIRELESS CONTROL MODE LIGHTS

Traffic light controllers have 1pc host and 3pcs receivers. Based on wireless transmission system, all control signals are transferred from the host to the receivers to control the switch on and off of traffic lights according to pre-set program by time.



SOLAR HIGH MAST LIGHTS

Solar High Mast light is a type of solar site lighting that is commonly used to illuminate large areas from a very high mounting height for ports, parking lots, square, storage zone, etc.

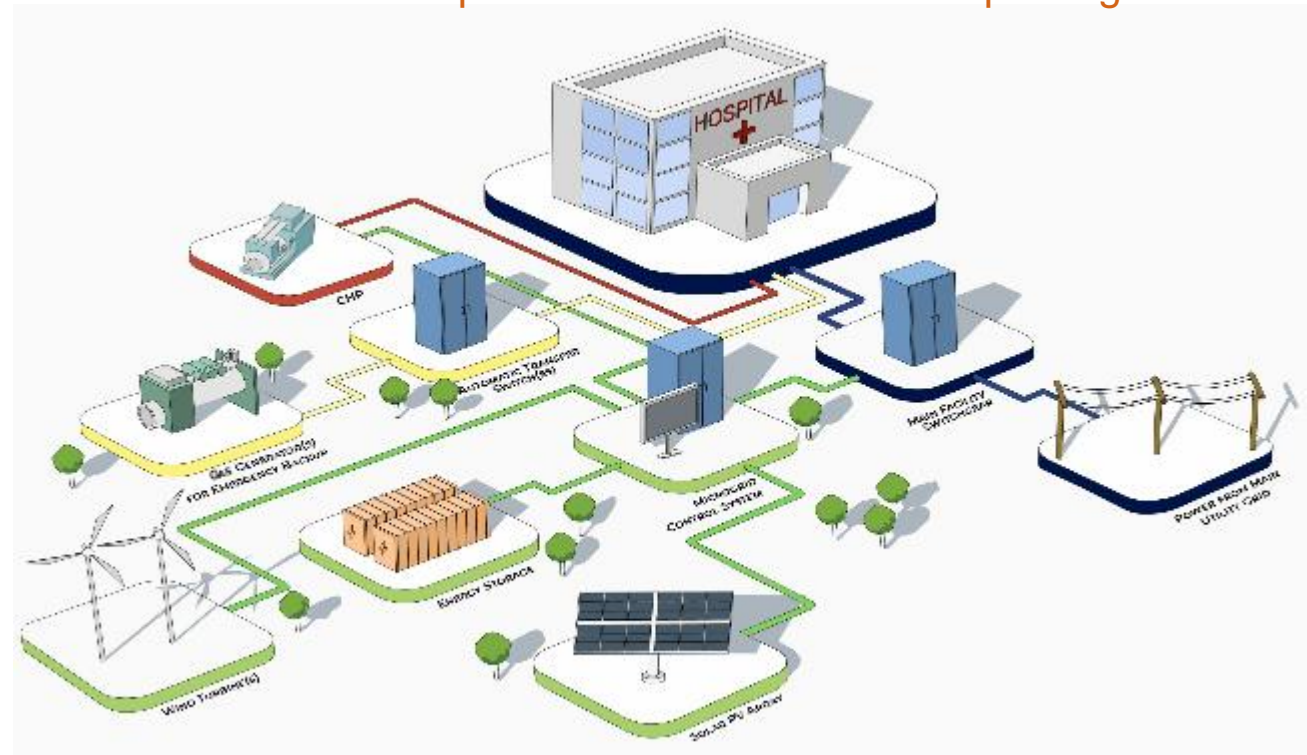


MICROGRID POWER

Solar panels work by absorbing sunlight and converting it into electricity.
We make you earn revenue from your system.



We offer a full range of Solar options to suit your particular site.
We ensure the flexibility your business requires to meet its specific financial and environmental objectives. Our expertise support you with a solution operations and maintenance packages.



MY PLANT PERFORMANCE PLATFORM



Asset Performance Management (APM) More Performance through Real-Time-Monitoring.



Remote Engine Operation (REO) Control your engine with just one click

We handle your fleet's uptime and reliability to the next level with Asset Performance Management (APM).

Our cloud-based technology enables you to efficiently monitor your fleet's health in real-time, securely and remotely.

We manage performance, ensure improved customer satisfaction, reduce life-cycle costs, and enhance productivity.



SMART ELECTRICITY METERS

We provide smart electricity meters in to prevent estimation of electricity usage.



Single Phase Meter

Intelligent and high-performance single phase electricity meter for household use.



Three Phase Meter

Intelligent three phase electricity meter for consumption up to 100A for households and industry.



Prepayment Meter

Intelligent revenue protection With smart prepaid electricity meters based on the global STS standard.



The Digital Substation

Take the next step in the smart grid evolution-provides insight into the low-voltage grid by monitoring secondary substations and thus expanding the utility's network of sensors to include all parts of the low-voltage grid.



THANK YOU