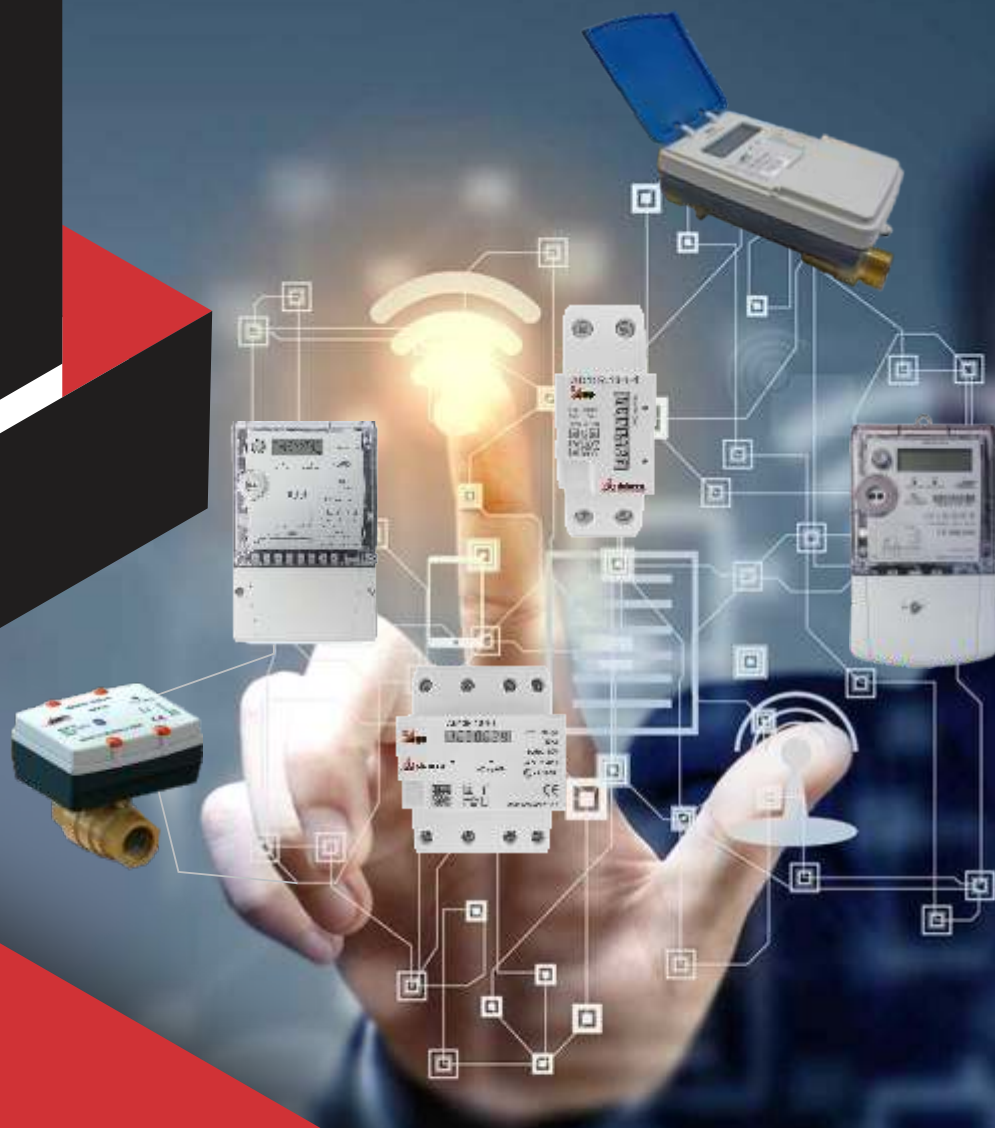


CORPORATE **BUSINESS BROCHURE** ADD GRUP

2025

Solutions for efficient management of energy and water

Our solutions help utilities, businesses and consumers optimize energy and water consumption, reduce costs and minimize environmental impact. We facilitate a global shift to more efficient consumption patterns by providing cost control and loss prevention through real time solutions for management of resources.



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Our history

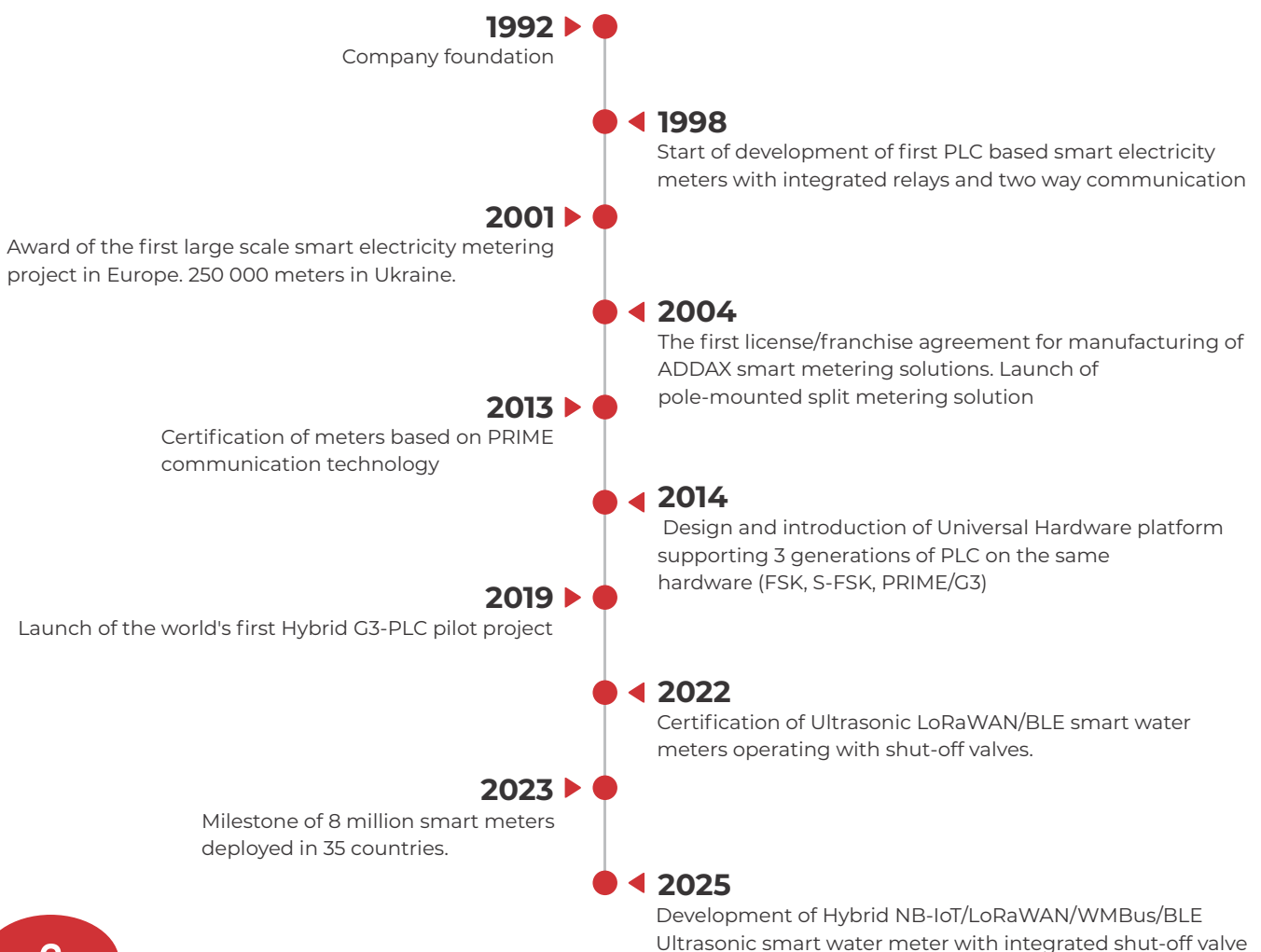
ADD GRUP is a corporation consisting of two companies with head-offices, R&D and manufacturing facilities in Republic of Moldova.

Founded in 1992, the company became a pioneer in smart electricity metering solutions based on **PLC (PowerLine Communications)** and since that time designed already 9 generations of smart electricity meters being at the forefront of the industry demands for hardware reliability, accuracy and communication performance.

Today **ADD GRUP** delivers high precision equipment for electricity and water metering alongside with IoT integration making its products indispensable for smart cities and modern resource management systems.

Unique technologies, like ultrasonic water meters with low starting flow rate, shut-off valves and flexible platforms for integration with various communication platforms distinguish **ADD GRUP** from other rivals in the market.

The company's core mission is to deliver solutions that make resource management simple, precise and environmentally friendly.



Products & Solutions

ADD GRUP offers a wide range of electricity and water metering and management products and solutions to help utilities, businesses and consumers optimize the use of resources, reduce costs and increase efficiency.

Our technologies are designed to be state-of-the-art, providing reliability, durability, accuracy and ease of use.



A dramatic background image of a dark, stormy sky with multiple bright, jagged lightning bolts striking downwards. The central text is contained within a white rectangular box.

ADDAX

ELECTRICITY
METERING SOLUTIONS

ADDAX smart electricity meters

The **ADDAX** classic meter series are a bestseller designed to provide highly accurate measurement and comprehensive monitoring of energy consumption in residential, commercial and industrial applications. Being based on Universal Communication Platform meters are easily integrated into various communication infrastructures based on PRIME 1.3.6, PRIME 1.4, Hybrid PRIME or based on P2P Cellular Communication Solutions. Their DLMS Application Layer allows us to adapt them for different companion specifications ranging from T5 Spain, M5 Lebanon, Bulgarian EVN, Romanian CEZ, Polish PGE an EOP up to other customized data models.



Single-phase and three-phase direct connection meters

- Reference voltages: 127...230V
- Maximum current 80 A
- Active energy, accuracy class B (1)
- Reactive energy, accuracy class 2
- Up to 6 tariff registers, Up to 12 changeovers per day
- Built-in basic relays 80A
- Energy quality control & monitoring
- Permanently lockable meter case
- Terminal and meter cover opening sensors
- Permanently lockable meter case
- Sealable optical port
- Strong external magnetic field sensor
- Universal Hardware Platform supporting OFDM based technologies: Built-in PLC modem - PRIME 1.4 Specifications, ITU-T G.9904 standard compliant
- RS-485 interface
- Calculation of total harmonic distortion factor
- Security Suite 1
- 2G/3G/4G modules support
- Backup power supply
- IP 54 protection against water and dust

Three-phase CT and CT/VT meters

- Reference voltages: 57,7/110/127/220/230V
- Maximum current 10A
- Active energy, accuracy class C (0,5), export and import
- Reactive energy, accuracy class 2, 4 quadrants
- Up to 6 tariff registers, up to 24 changeovers per day
- Energy quality control & monitoring
- Permanently lockable meter case
- Terminal and meter cover opening sensors
- Permanently lockable meter case
- Sealable optical port
- Strong external magnetic field sensor
- Universal Hardware Platform supporting OFDM based technologies: PRIME 1.3.6, PRIME 1.4, Hybrid PRIME (for CT meters only)
- RS-485 interface
- Calculation of total harmonic distortion factor
- Security Suite 1
- 2G/3G/4G modules support
- Backup power supply (battery or super cap)
- IP 54 protection against water and dust

ADDAX communication solutions

Since the early meter design stage back in 1998 ADD GRUP has chosen Power Line Carrier as the optimal communication channel for its electricity metering solutions. For more than 25 years and with 8 million meters installed in 35 countries around the globe it is still considered by us and by many leading utilities like Iberdrola, Naturgy, Enedis, ENEL, EVN, CEZ, EDP and many other as having the best cost-benefit ratio.

ADDAX is now based on Universal Communication Platform supporting OFDM based technologies: PRIME 1.3.6, PRIME 1.4, Hybrid PRIME, as we strongly believe that 98% of scenarios shall be PLC or Hybrid, while for the remaining 2% the meter can support a plug-in Cellular module for a P2P connection with Head-End Software.

PRIME PLC



PRIME PLC is currently the best performing technology in Europe providing the fastest communication speed and seamlessly operating in big distribution transformers with up to 1000 consumers.

The technology is an international standard and is used by a huge number of manufacturers of metering systems and devices. It is well adapted to the parameters of the physical data transmission, provides a high data transfer rate (up to 141 Kbit/s) and the ability to monitor the **PLC** network in real time, where in **PRIME 1.4** the system can switch between 8 channels in order to avoid harmonic distortions produced by non-compliant electrical appliances

HYBRID PLC



Hybrid PRIME is the best option for countries in Latin America and South-East Asia, where regulations permit to use a much larger frequency carrier range for RF channel. Fast and dynamic switch of each individual node from **PLC** to RF and vice versa enhances data exchange. Together with **PRIME 1.4** and large spectrum of frequencies from 3 to 500 KHz in **PLC** it creates a perfect synergy to overcome the most harsh network conditions.

MOBILE: 3GPP



ADDAX IMS provides reliable **PLC** and Hybrid communication, covering 98% of meters. However, in cases where PLC or RF is not feasible (e.g., less than 5 consumers per transformer or large consumers only), P2P communication is recommended.

ADDAX IMS integrates a 3GPP mobile data module (GSM, GPRS, LTE, etc.) for direct communication between smart meters and Head-End Software, bypassing data concentrators. This solution enhances data collection, especially in remote areas, with LTE networks covering up to 15 km.

Head-End Software



SIMS (Smart Integrated Metering System) is a powerful platform for managing and analyzing data collected from metering devices. SIMS enables real-time monitoring of consumption, fault diagnosis, device management, and energy accounting. The system is ideal for utilities, residential complexes and large industrial facilities.

Integration of communication equipment with SIMS software provides full control over the process of metering and resource management. These solutions allow users to minimize losses, respond quickly to any deviations and improve resource efficiency.

A high-speed photograph of a water splash, creating a crown-like shape with many droplets and ripples. The water is a deep blue color, and the background is a lighter blue. The splash is centered horizontally and occupies most of the frame.

ADDRA

WATER
METERING SOLUTION

ADDRA Ultrasonic Water Meters and Valves

ADDRA offers advanced water metering solutions providing the most accurate measurements and reliable performance. As of today, our water meters are best in class. With their certified Dynamic Range reaching R1600 and sensitivity of 1l/h you can be sure that not a single drop of water will remain unnoticed and unmeasured.

Availability of shut-off valves (integrated or separate) gives the possibility to reduce or limit the consumption of bad debtors or those who overuse water during drought, but also helps consumers avoid or reduce damage in case of leakage or burst by automatically closing the valve.

ADD GRUP has developed the Intelligent Power Supply — an intelligent power architecture designed to enhance the reliability and adaptability of meters under a wide range of operating conditions. Unlike traditional built-in power sources, the Intelligent Power Supply is a comprehensive solution combining internal and external power sources capable of ensuring stable device operation even under non-standard loads or increased energy consumption.



**Ultrasonic water meter
with integrated valve**

- Integrated shut off valve
- Nominal diameter: DN15
- Dynamic range: Q3 / Q1 R800
- Installation sensitivity class: U0/D0
- Protection class: IP68
- Installation: Horizontal, vertical, at angle
- Battery: Lithium battery, up to 16 years lifetime with the possibility of extension thanks to a replaceable power bank
- WAN Communication: MultiRAT (NB-IoT, LoRaWAN, Wireless M-Bus)
- LAN Communication: BLE, NFC
- Alarms: Leakage; Burst; Dry; Reverse flow; Tampering; LOWBAT
- Measuring pipe: Brass
- Starting flow: 1 L per hour
- Environmental class: E2, M1, O



Ultrasonic water meter

- Nominal diameter: DN15 / DN20 / DN25
- Dynamic range: Q3 / Q1 R250 / R400 / R800 / R1600
- Installation sensitivity class: U0/D0
- Temperature class: T30/T50
- Metrological class: Class 2
- Pressure rating: PN16
- Protection class: IP68
- Installation: Horizontal or vertical
- Battery: Lithium battery, up to 16 years lifetime
- Local Interface and valve control: Bluetooth
- WAN communication: WM-BUS/LoRa, dual stack
- Alarms: Leakage; Burst; Dry; Reverse flow; Tampering
- Measuring pipe: Brass or composite
- Starting flow: 1 L/h
- Housing: polycarbonate



Shut off valve

- Nominal diameter: DN15 / DN20 / DN25
- Temperature class: T30/T50
- Protection class: IP68
- Pressure rating: PN16
- Indication: LED to reflect valve states
- Battery: Lithium battery, up to 16 years lifetime
- The solenoid valve is designed to control the water flow of a residential pipeline.
- Compact and lightweight.
- BLE communication with water meter.
- In accordance with international standards.

ADDRA communication solutions

- NB-IoT (Narrowband Internet of Things) is a wireless communication technology for low-power IoT devices. It ensures reliable transmission of small data packets, works in basements and hard-to-reach areas, and is ideal for smart meters and sensors.
- LoRaWAN long range WAN two-way communication technology
- Wireless M-Bus short range communication technology for drive-by/walk-by meter reading
- Sigfox long range WAN two-way communication technology (product development option upon individual request)
- Bluetooth Low Energy (BLE 5.0) for local communication with flow control valve and with smartphone app



Today, it is impossible to rely on stable coverage from a single communication technology — whether NB-IoT or LoRaWAN. Signal strength varies from region to region and even within the same neighborhood, forcing water utilities to select meters for each coverage zone, yet this still does not guarantee results. We offer a solution that eliminates dependence on a single technology.

The new ADD GRUP ultrasonic water meter automatically connects to the best available network, supporting NB-IoT, LoRaWAN, and Wireless M-Bus simultaneously. Thanks to MultiRAT technology, it selects the strongest, most stable, and fastest signal—one universal meter for all regions.

It also supports Bluetooth Low Energy (BLE 5.0) by default, enabling:

- Connection to the ADDRA shut-off valve for water supply control;
- Interface for utility staff to read, configure, and update the meter via smartphone or tablet;
- Interface for consumers to check readings, alarms, and manage the valve through a smartphone app;
- Prepayment functions via STS tokens, including consumption tracking, alarms, and credit balance

ADDRA Prepaid Water Metering

ADDRA prepaid water metering is based on the STS standard. However instead of legacy consumer interface units and smart cards we are offering user friendly smartphone application. 20-digit tokens purchased from a vending station or online are sent by the smartphone to **ADDRA** meters using Bluetooth Interface (BLE 5.0). **ADDRA** smartphone app also allows to receive from the meter alarms, consumption information and credit status.

Alternatively tokens can be sent to the **ADDRA** meter through LoRaWAN using available communication infrastructure.

Prepayment options are available for WMP (a water meter with a separate shut-off valve) and WMV (a water meter with an integrated valve).

- Smart-phone application as Consumer Interface
- STS standard protocol IEC62055-41, 51 compliant
- 20-digit tokens are generated by a vending system
- WMP – water meter with a separate shut-off valve
- WMV – water meter with an integrated valve



ADDRA Water Leakage Management

- LEAK alarm (possible water leakage) appears when water flows continuously for more than 24 hours
- BURST alarm (possible breakthrough pipe) appears when the water flow is constantly high for more than 30 minutes

Water Leaks

Problem: Undetected water leaks, especially in toilets, can waste hundreds of liters water daily, causing significant financial losses.

Solution: The ADDRA water meter detects continuous water flow for 24+ hours, displaying a leak symbol on its screen. Notifications are sent to your smartphone (via the ADDRA app within Bluetooth range) and the Central System. The ADDRA water valve can automatically or remotely stop water flow, preventing further loss.

Water Burst

Problem: Discovering water damage in your home after returning from vacation can be a nightmare

Solution: The ADDRA water meter detects continuous maximum flow (e.g., for 2 hours) and triggers a burst alarm. The system either notifies the Central System to shut off water or directly activates the valve to do so.

Keep your home safe and dry with ADDRA.



ADDRA Smartphone-to-meter



- Control of the integrated or separate water valve (partial or full shut-off)
- Notification about the presence or absence of water in the system
- Water consumption volume monitoring
- Water flow velocity monitoring
- Water leak warning
- Pipe burst warning
- Backflow warning
- Magnetic field detection warning
- Warning on an attempt to hack the meter
- Low battery warning
- Application firmware status monitoring
- Valve status monitoring

Smartphones are part of our daily life. Therefore, at ADD GRUP we have considered that it is essential for a modern smart metering solution to have smartphone connectivity, not only to utility personnel, but also for consumers.

The **ADDRA** smart water meter with a separate or integrated valve can be controlled using a mobile application on a regular smartphone. This gives the possibility for utility to read/configure/update firmware of the meter being in proximity to it, but without the need for physical access in hard-to-reach locations, like apartments, wells or other types of installations.

At the same time smartphone connectivity is very beneficial for consumers, who would have access to meter readings, consumption profiles, as well as to operation of the valve, which can be closed for example when leaving home for vacation just with a simple click in the smartphone app.

A hand is pouring gold coins from a green watering can onto a small plant in front of a building with a 'HOTEL' sign. The scene is set in front of a classical building with large windows and a balcony. The word 'HOTEL' is written vertically in large, yellow, 3D letters. The word 'ADDERRA' is written in large, white, bold letters across the center of the image. The background is a blurred view of the building's facade, featuring arched windows and ornate architectural details. The foreground shows a small, green, leafy plant growing out of a hole in the pavement, with several gold coins scattered around it and falling from the watering can. The overall image conveys a message of investment and growth in the hospitality industry.

ADDERRA

Submetering for hotels and landlords with
integrated payment platform

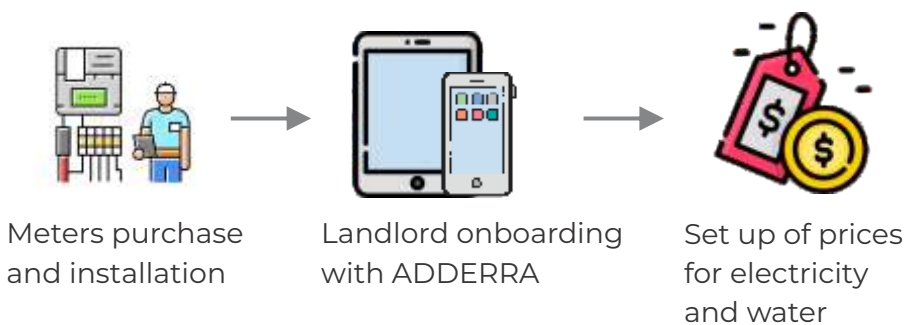
ADDERRA Submetering for electricity and water

The background to creating **ADDERRA** submetering solution was the fact that tourists are negligent in water and electricity consumption, using 3-4 times more electricity and water than a usual resident. This not only creates losses for landlords and hotels, but also harms to harm to environment making landlords and hotels businesses inefficient and unsustainable

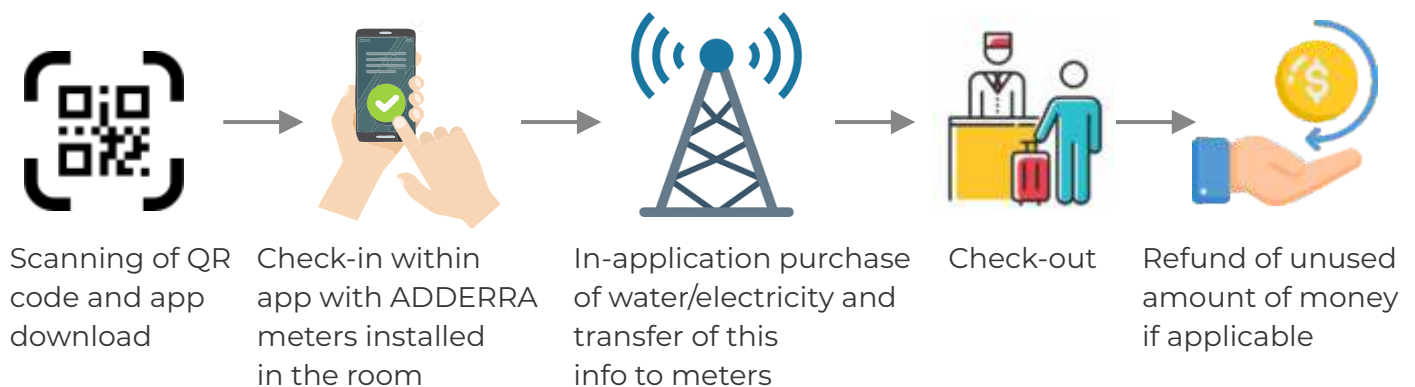


While such situation is created due by the fact that electricity and water are included in the accommodation fee, we provide a user-friendly instrument to separate electricity and water from the accommodation fee and make tourists/guests/tenants pay individually for the precise amount of electricity and water consumed. With the help of the below submeters and a simple smartphone app this procedure is seamless as any other online purchase via a smartphone app.

Steps for **ADDERRA** set up for landlords/hotels:



Steps for **ADDERRA** use by tenants:



ADDERRA Submeters for electricity and water



Single-phase and three-phase electricity meters

- Communication through Bluetooth (BLE 5.0)
- Prepayment and post-payment mode supported
- The current balance in the local currency and in watt-hours
- Consumers' load disconnecting on credit amount exhaustion
- User notification when: – No data exchange with the meter for a long time – The meter credit is exhausted – The payment time is close to expiring – The order time is close to expiring
- Stores the last 120 profile entries (recharge token, start service time, stop service time, etc.)



Water meter and shut-off valve

- Ultrasonic measurement principle
- Sizes: DN15, DN20, DN25
- Communication through Bluetooth (BLE 5.0)
- Prepayment and post-payment mode supported
- The current balance in the local currency and in cubic meters/litres
- Valve closure if credit balance exhausted
- User notification when:
 - No data exchange with the meter for a long time
 - The meter credit is exhausted
 - The payment time is close to expiring
 - The order time is close to expiring

Advantages of ADD GRUP solutions

Accuracy:

- In order to assure that electricity companies have the most accurate billing and minimize losses, we calibrate the meters to 0,6% accuracy class even though the standard requires 1 for active energy.
- As for the water meters, the dynamic range of R1600 and sensitivity of 1l/h make sure that not a single drop of water remains unnoticed.

Durability:

- Products are designed for long-lasting operation using high quality materials that are effective even in harsh environments.

Reliability:

- Based on customer confirmed statistics for the last 15 years the average fault rate (field returns) does not exceed 0,1% annually, which is a benchmarking fault-rate in the industry.

Communication efficiency:

- In majority of projects our PLC meters and DCU deliver 99% daily data collection performance.
- In water metering we combine the use of LoRaWAN, WM-Bus, BLE to create multiple communication scenarios and meter accessibility for utility and consumers

Resource saving and benefits:

- Regardless of who our clients are – whether power grids, water utilities, landlords, hotels, or ordinary consumers – our mission is to provide energy/water saving solutions to everyone involved in the process of water and electricity consumption. Let's together conserve the resources of our common home – planet Earth.





ADD Grup develops and manufactures AMI solutions for electricity, water metering and submetering applications. Regardless of who our clients are – whether power grids, water utilities, landlords, hotels, or ordinary consumers – our mission is to provide energy/water saving solutions to everyone involved in the process of water and electricity consumption. Let's together conserve the resources of our common home – planet Earth.

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