Prepayment solution for ADDRA Water meters

Technical information

Prepayment concept

ADDRA prepaid water meters effectively improve the efficiency of water consumption and decrease non-revenue water through water data management and control.

Prepayment implementation is based on world-famous STS standard.

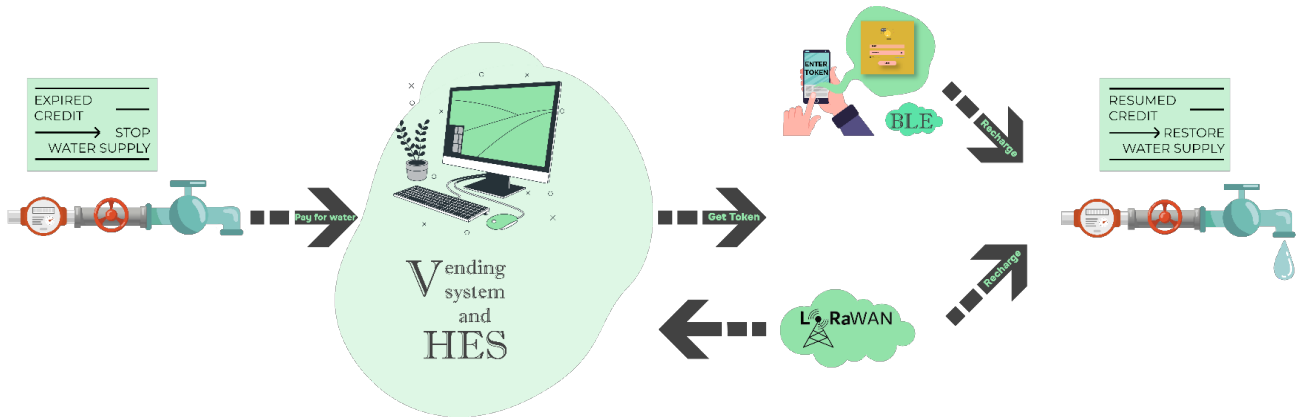Prepayments solution key features are as follows:

- STS standard protocol IEC62055-41, 51 compliant
- Prepayment tokens are sent to the meter using smart phone or Customer Interface Unit.
- 20-digit tokens are generated by a Vending system.

Prepayment options are available for both smart water metering and control devices:

- WMP - water meter and separated shut-off valve
- WMV – water meter with integrated valve

In case of unpaid credit, the meter sends a command to close the water valve and shut off water supply.

A customer is required to pay for water and send the received token for replenishment of the credit to the meter locally by a special mobile application or remotely from HES via LoRaWAN.

Communications

The smart water meter can be accessed locally via BLE or remotely via WAN channels LoRaWAN, WM-BUS.
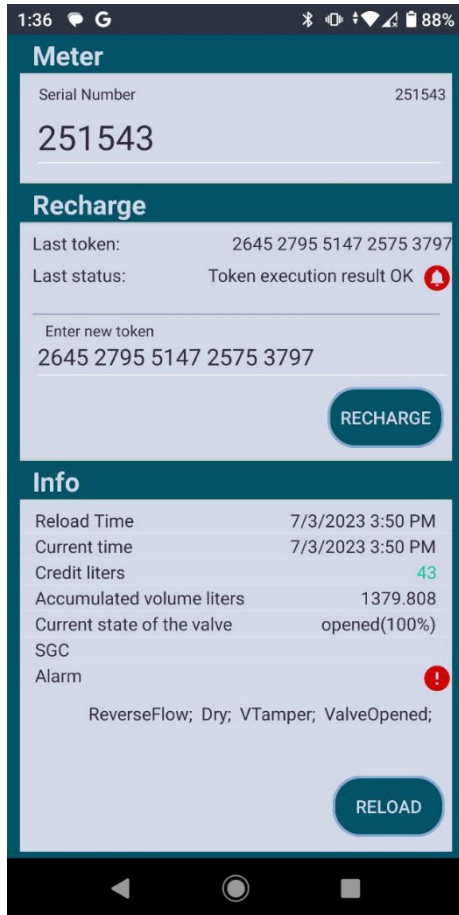
Tokens handling

Each token is unique and contains the number of cubic meters of water to be credited by the meter for use.

Tokens are entered locally via mobile application or remotely via HES.

Once credit is exhausted, the water meter will close the valve and stop water supply until another token is entered to replenish the credit. Then the valve will be open, and water supply will be restored.

To ensure the valve state change by the meter, the 30 seconds delay is added after successfully applying the STS token

ADDRA Prepay View application allows user to send token, view valve state and meter information including meter alarms. The application has a simple and clear interface.

Last token	Last entered token before recharge
Reload time	Date and time of the last reload of data
Credit liters	Water liters available at the reload time
Accumulated volume liters	Water consumed at the reload time
SGC	Supplier Group Code issued by the STS Association.

RECHARGE button	Send a token to recharge the water meter
RELOAD button	update meter information