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CASE STUDY

Low Voltage monitoring: The case of HEDNO

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Description

- Meazon provides real time low voltage power network monitoring in medium voltage substations of Greek HEDNO
- **The project covers 50 LV lines in rural areas in the regions of Arcadia & Laconia, Peloponnese, Greece**
- Monitoring variables include voltage, current, energy, power, power factor and harmonics, using mobile connectivity (NB-IoT, 3G, GPRS) and reporting interval down to 1 minute
- **Meazon provides middleware cloud gateway and analytics platforms**
- **Currently in discussions on multiple pilot projects to extent Meazon technology in all substations (> 150.000 units)**

HEDNO

Customer objectives & challenges

- Voltage and other electrical variables monitoring for both corrective maintenance and n/w performance documentation reasons
- Rural areas coverage which are difficult to visit often
- Cost efficient solution avoiding the installation of expensive monitoring and networking equipment
- Application of Meazon technology with primary aim to provide real time data an energy balance across the LV system, as well as energy consumption balances to minimize electricity theft exceeding €400mn. p.a.
- Additional (to electrical variables) information through the use of Meazon multisense reader on temperature, pressure, etc. in MW/LV substations provide valuable information on substation status and enhance predictive maintenance capabilities
- Information gathered through the introduction of Meason energy sensors in MV/LV substations will also assist HEDNO in prioritizing upgrades in LV lines

Key Benefits

- Real-time visibility in low voltage networks using only one small & cost efficient IoT device always connected over public mobile networks (NB-IoT. 3G, GPRS) and/or wireless mesh (e.g. Zigbee) networking per 3 phase LV line departure
- Data reporting down to 1 minute or even lower
- Control capability per device, i.e. driving an on/off relay
- No need to use any other on-site equipment
- Monitoring of all electricity variables including harmonics, embedded in a cost-efficient device
- Manageability to device level, including over the air s/w updates & upgrades
- Easy integration to 3rd party application providers using Meazon's cloud gateway middleware platform API
- Zero effort installation without to cut/off electricity during installation