

## Energy monitoring

**Application:** small to medium-sized commercial buildings (1,000 to 5,000 square meters)

# Manage WAGES\* in your small to medium-sized building

\*Water, Air, Gas, Electricity, Steam

“ I need to be able to identify abnormal or atypical consumption easily and at regular intervals so that I can control the overall flow of energy throughout the building. ”

## Gather metering data via an iRio RTU, track consumption and detect problems

The hub of the system is an iRio RTU (Remote Terminal Unit), which picks up metering data from power meters (pulsing contacts or Modbus Serial Line communication) and flow meters (pulsing contact, Modbus Serial Line communication, or M-Bus open metering communication). The terminal then generates the necessary databases, dashboards, curves, and reports. It also transmits data.

The solution detects problems like flow leakages, overrides, and equipment left on, and then provides preconfigured indicators and curves at set intervals or on demand via a standard web browser as well as a downloadable metering database for in-depth analysis.

Additional functions are also available, including an alarm generator for maximum energy consumption overruns, power faults, and abnormal consumption cycles and a load controller for load shedding, automatic shut down, and override limitation.

Energy metering can be provided by a number of meter options depending on budget and performance requirements:

- Compact NSX built-in power meter
- PM9C/200/700 communicating power meters
- Cost-effective EN40/PM9P/ME4zr pulsing power meters

Solution

# Benefits

## For the user

### > 10% energy savings thanks to usage analysis

- Even greater savings if additional controls like load scheduling, conditioning shedding are implemented

### > Reliable industrial RTU technology ensures information is available

### > Cost-effective

- The solution works with pulse metering technology
- Possible small initial rollout to secure quick ROI can be scaled up later with additional metering

### > iRio pre-developed software modules minimize software development costs

### > Web based for easy implementation; no dedicated workstation required

## For professionals

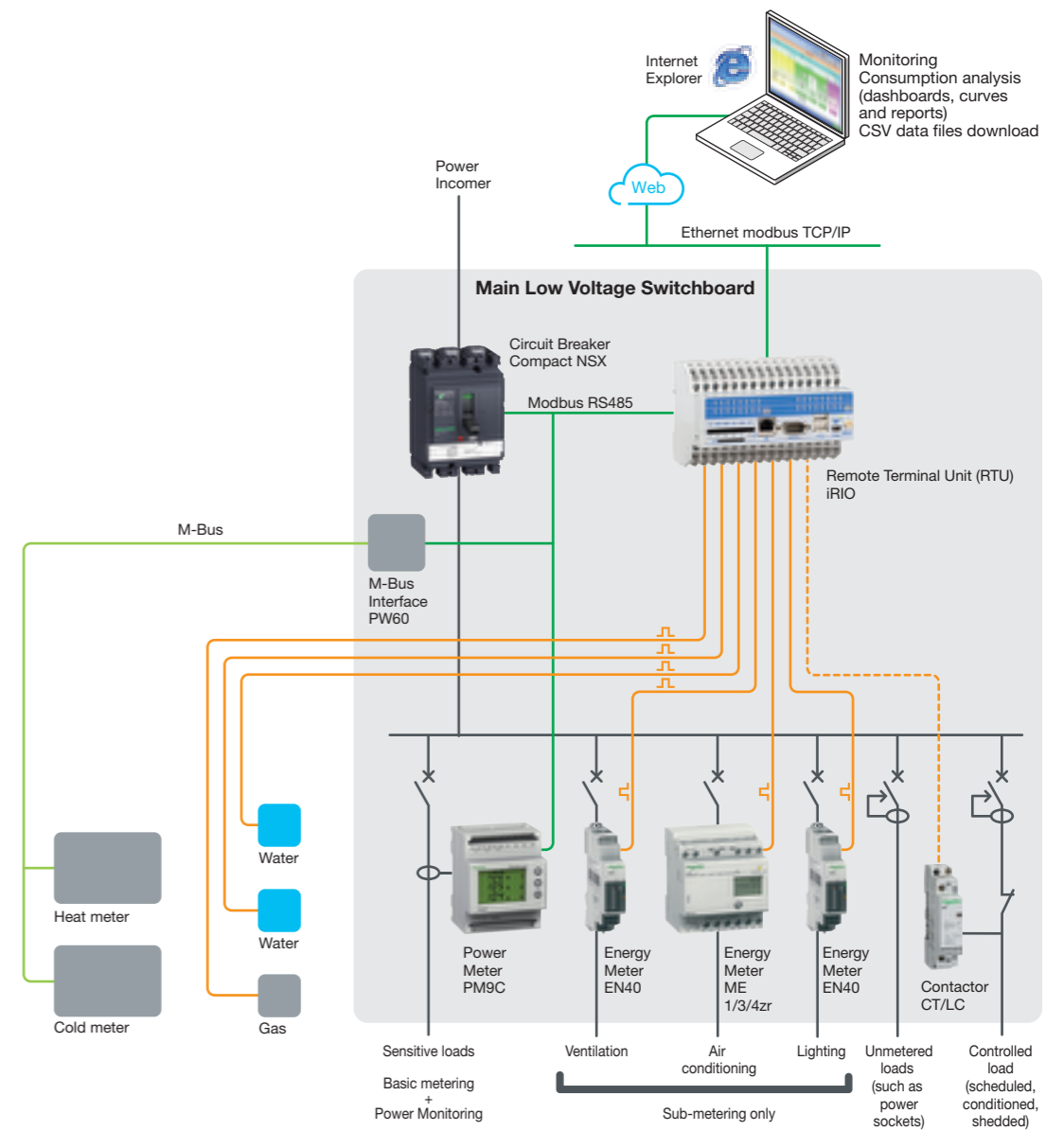
### + Low software development costs: iRio comes with pre-developed software modules

### + Powerful customization capabilities: implement additional control functions if and when required

### + Less time spent on-site: remote alarm and operation

### + No additional switchboard cabling: Compact NSX built-in power meter

- Measure
- Reduce energy consumption
- Reduce energy costs



### PM range

- PowerLogic large range of power meters offering all the measurement capabilities required to monitor an electrical installation and are backed by the most complete range of monitoring devices and software on the market
- Energy class 1 as defined by IEC 62053-21 and class 0.5 as defined by IEC 62053-22

### EN40

- Economical kWh meter for metering active energy consumed by a single phase electric circuit in all < 10kVA installations
- Class 1 complies with IEC 62053-21 and IEC 61557-12 (PMD DD) Class B complies with EN 50470-3



### iRio RTU

Modular system, with integrated web server; sends information by GSM, GPRS, Ethernet,

RS485; optional additional cards for external inputs and outputs