



Comprehensive smart metering solution

Barwa Commercial Avenue in Doha/ Qatar - Landis+Gyr installed smart metering solution system

Barwa Commercial Avenue and Barwa Residential are an 8.6 km long development of commercial spaces consisting showrooms, office outlets and residences. Right from the start, Landis+Gyr participated in planning and execution of the building project which has been one of the largest civil engineering projects in Qatar so far. The goal was to implement a comprehensive smart metering solution for automated reading and billing of cooling meters. During the complete project L+G put strong emphasis on training of engineers and technical staff to ensure sound project execution and smooth operation after completion.

Project requirements:

Due to the high temperatures, Qatar needs a beneficial technology for air conditioning for all 5 sections of the shopping mall with in total 920,00 m² of build-up area. Energy used in all shops, office outlets and residences is to be calculated and billed as per consumption. Therefor the customer required a remote read out system and a software solution for data collecting, processing and automatically billing processes. In detail they demand an accuracy level of metering which shall not deteriorate with time and shall have the same accuracy level at least 15 years. The Billing system shall be part of the software and must be tailord to the operator needs.

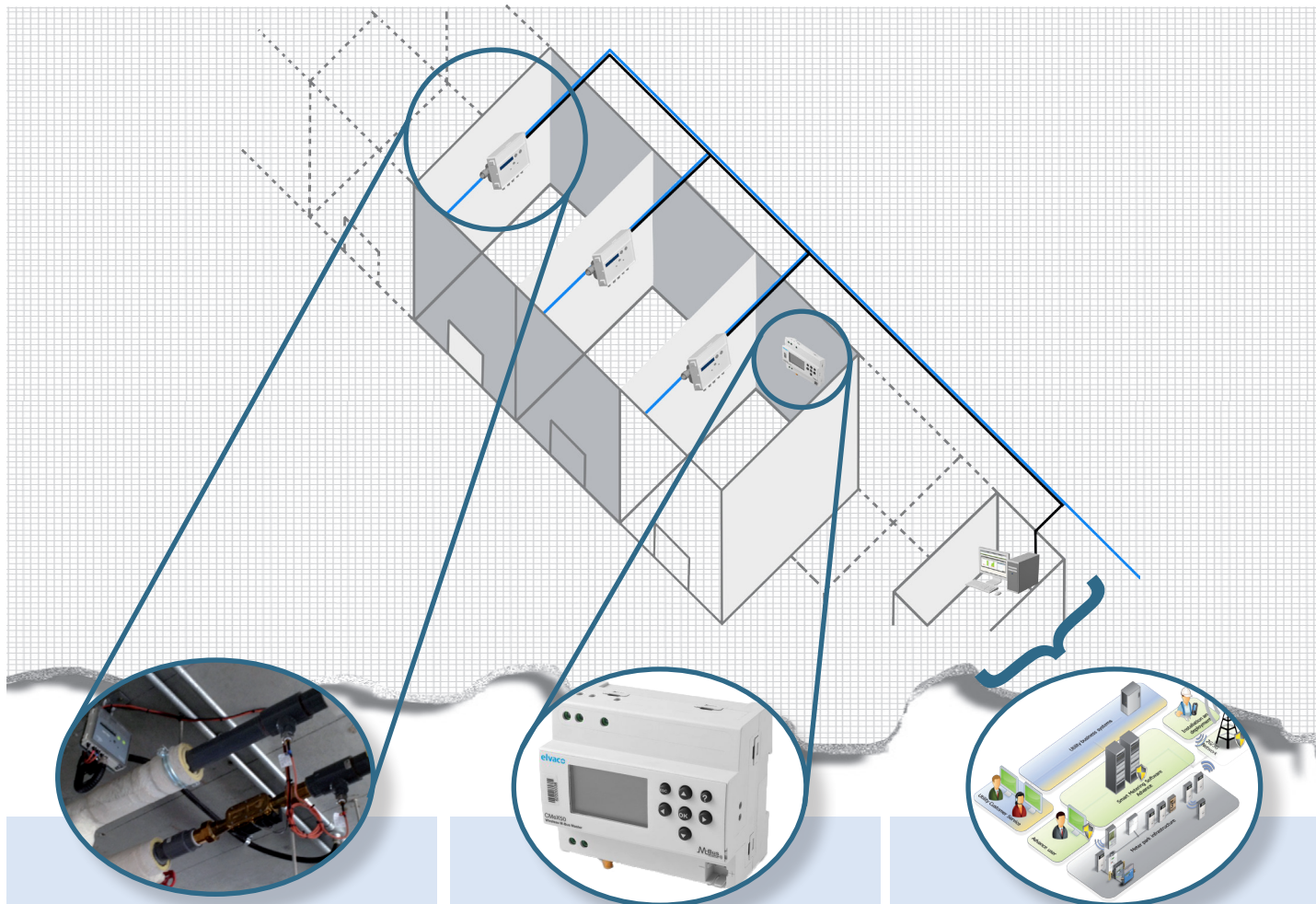
Landis+Gyr Solution:

Right from the start Landis+Gyr accompanied the entire process of the project, from planning to installation of the smart metering and AMR system. Through every phase of construction, partners, installers and engineers were supported with trainings and had have direct contacts for trouble shooting at site.

The engineering includes 7,500 high-precise and reliable ultrasonic cooling meters of type ULTRAHEAT® T550 (UH50...) and T350 (2WR6...) equipped with M-Bus communication interconnecting to M-Bus Masters on TCP / IP communication and a complete AMR software solution with SQL Database for data collection, processing, billing and alarming function.

Barwa Commercial Avenue - Project Facts and Figures:

Client: Barwa Real Estate Company	Build-up area: 920,000 m ²
Construction Period: 2008 - 2012	Gross floor area: 870,000 m ²
5 sections with different building types	600 Offices (184,000 m ²)
Up to 4 floors and underground parking	600 Shops (183,500 m ²)
Total lenght: 8.6 km	800 apartments (47,800 m ²)



- 7,500 Cooling Meters
ULTRACOLD®T550 (UH50...)
ULTRACOLD®T350 (2WR6...)
- Ultrasound technology
- Meter size
from qp 0.6 up to qp 15
- Pre-assembled M-Bus G4
communication modules
- Self diagnostic
- Installed in all 4 floors
underground parking, offices,
shops and apartments.

- 9 km length of M-Bus Network
- 30 M-Bus Master
DIN mounted
- Collecting the data from 250
meters each
- Via transparent TCP/IP interface
the data will be transferred to
head-end-system
- Read-out frequency: 30 sec
- Full fledged AMR-System

- Advance Enterprise:
Software for data processing,
with alarming function.
- Automatic (scheduled) or
manual reading of meter data
- Database for storing billing and
other required data
- Tools for presenting and
analysing data
- Data exporting into standard
formats (txt, pdf, xls,...)
- Billing function

Success factors:

- Complete scope including supervision of installation, testing and commissioning
- Provision of Complete Solution incl. AMR / Billing Software
- Reliable and trusted partners
- Accuracy level of metering
- Perfect installation and pressure tested for leaks at joints
- Accomplishment of the whole process

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