



Creating reliable smart utility metering systems for the real estate industry

Monitoring devices for the real estate industry fitted with Saft's Li-SOCl₂ primary lithium battery technology

Key benefits for Techem

- Minimized CAPEX as no installation of cabled equipment
- Fit & forget solution therefore reducing OPEX
- Risk mitigation with the choice of a mature technology
- High quality and real-time information on energy / water consumption and device status
- Reliable solution with a long lifetime expectancy

Features of Saft's power solution

- Proposition of a comprehensive and bespoke technical solution including reliable lifetime calculation
- Unrivalled reliable solution requiring zero maintenance
- 30-year track record in Li-SOCl₂ primary lithium battery technology
- A technology capable of delivering the high pulse currents required for frequent wireless data transmission

The challenge: Reliable smart utility metering systems with a long lifetime expectancy.

Techem, a leading global energy service provider for the real estate sector, has created an innovative smart reading system for utility meters, smart heat cost allocators and smoke detectors. The system monitors the device status as well as the heating and water consumption in a building thanks to wirelessly connected devices and sends consumption and status information per mobile communication via cloud to the Techem data center which then automatically creates billing and energy reports for the properties. Residents are

informed of their exact consumption, thus promoting efficient, economical use of energy and water. For the applications to be enduring and efficient, Techem needed a mature and reliable technology, capable of delivering the high pulse currents required for frequent wireless data transmission, even at the end of their life. The smart meters also had to offer a life expectancy of between 5 and 10 years.

The solution: Saft Li-SOCl₂ cylindrical primary lithium cells.

To provide Techem with complete confidence in the battery's capability, we carried out detailed modeling based

on their device's specific consumption profile and environmental parameters. The Li-SOCl₂ electrochemistry that was specified for the smart reader feature has established a reputation for reliability and long life in smart metering applications for both water and gas, with hundreds of millions of batteries successfully deployed worldwide, hence our recommendation. More than 30 years of field and laboratory data enables us to accurately predict the expected life of our batteries in this type of demanding IoT application. For Techem, the high level of technical support for the selection of the ideal power solution was decisive in the choice of the final provider.

“*This smart system for consumption reading, monitoring and billing is a key step in our strategy to become the digital partner of choice for the real estate industry. We needed absolute confidence that the batteries would offer excellent performance over a long service life.*”

Dr. Arne Kähler, Head of Research and Product Development at Techem



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Document N° 31190-2-0520

Edition: May 2020

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