



Meter Life Analysis

Saft's Meter Life Analysis service provides accurate state-of-charge and state-of-health data from meter batteries in the field. It enables Metering Network Managers to optimize their metering asset operational planning and to implement a condition based maintenance approach.



▶ OBJECTIVES

- Determine the remaining life of the installed base of meters
- Optimize metering asset management
- Secure the availability of metering infrastructure

▶ MEASURES / DELIVERABLES

- Analysis of the mechanical integrity of the batteries
- Remaining battery capacity determination by Saft's specific chemical analysis of the electrodes
- Determination of the actual state-of-charge of batteries through discharged capacity and self-discharge evaluation
- Determination of the actual state-of-health through measurement of the passivation state and of the complex impedance of the batteries
- Data analysis and evaluation of daily battery consumption
- Identification of the parameters influencing battery ageing
- Recommendations for the future operation of meters to optimize battery life
- Deliverable as a comprehensive "facts and figures" test report

▶ APPLICATIONS

- For any meters, AMR (Automated Meter Reading) or any metering device using primary lithium batteries and deployed in the field
- Suitable for Saft batteries and batteries from other manufacturers

▶ BENEFITS

- In-depth analysis provides key information to determine the best metering asset management strategy
- Enables facts based decision making on asset maintenance (time-based or condition-based)
- Helps gain better knowledge and expertise in battery ageing
- Establish solutions to detect and manage key parameters influencing ageing to preserve battery life
- All tests performed by Saft's laboratory and results analyzed by Saft's highly trained experts
- Fast service: completion within 4 months from the initial booking

▶ COSTS

For more information on prices, contact your local Saft representative.





METER LIFE ANALYSIS PACK

Saft's meter life analysis can be adapted to your network's real conditions: you can run a one-off analysis for a complete diagnosis or set up a monitoring of your metering assets with a multi-year pack.

- Comprehensive batteries state-of-charge, state-of-health analysis
- Recommendations for future operations
- Refined lifetime calculation based on results
- Multi-year sampling
- Yearly state-of-health analysis report
- Fleet ageing trend analysis

	Pack	
	One off analysis	Multi-year monitoring
• Comprehensive batteries state-of-charge, state-of-health analysis	■	■
• Recommendations for future operations	■	■
• Refined lifetime calculation based on results	■	■
• Multi-year sampling		■
• Yearly state-of-health analysis report		■
• Fleet ageing trend analysis		■

How does it work?

Meter Collection

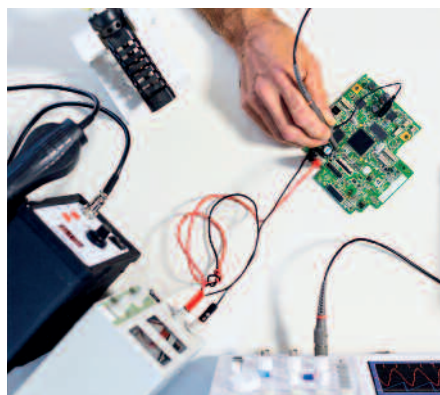
- A representative sample of deployed meters is identified and collected from the field
- Meters are dismantled and batteries are extracted for laboratory analysis

Battery analysis

- Batteries are checked for corrosion, leakages or cracks, loss of their hermetic seal
- Electrodes are tested to Saft's specific chemical analysis protocol
- Discharge capacity and self-discharge are evaluated by using induced coupled plasma analysis of discharge compounds from electrochemical reactions
- Complex impedance measurement

Data access

- Complete set of results is provided
- Comprehensive results analysis is delivered with best practice recommendations



“To meet our specific requirements Saft designed and deployed a service to check the actual consumption of our installed batteries. By performing laboratory analysis and then correlating the results with life expectancy data, Saft can accurately estimate the remaining service life of devices and equipment deployed across our fleet.”

Remote Metering Instrumentation Manager at a French Utility



Saft

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