

Choosing contract services

Proactive instrumentation maintenance



How after-sale services help ease the maintenance burden for water and wastewater treatment plants

Measurement made easy

Verification services check product performance and health without removing the product from the process

Overview

In an industry faced with around-the-clock operations and penalties for noncompliance with regulatory standards, it can be easy to lose track of periodic maintenance requirements whose impacts might not be noticeable until it's too late. Ignoring the influence that measurement and analytic equipment maintenance can have on water treatment plants (WTPs) or wastewater treatment plants (WWTPs) can be costly. Fortunately, equipment suppliers who bundle after-sale services tailored to WTP and WWTP needs offer new opportunities for instrumentation users to stay ahead of the curve in terms of timely response to changing performance.

Adopt a strategic view of maintenance

Today's analytical instrumentation incorporates increasing levels of built-in intelligence that create new options for more dynamic maintenance management. This provides a foundation for updated approaches to maintenance, creating opportunities to shift from time-based maintenance intervals to condition-based preventive maintenance scheduling. Actively managing maintenance from this more strategic perspective can close information gaps and generate new insights not available through a static checklist approach.

An example of this intelligence is the verification software that enables users to monitor the condition and performance of a flow meter in real time. Managing a contract-maintenance program through a Web portal with a personalized dashboard (see Figure 1, overleaf) offers an up-to-the-minute, high-level snapshot of instrumentation operations, with convenient drill-down access to supporting detail.

Cultivate proactive service benefits

Integrating maintenance as a key element of a larger strategic plan for overall plant operation can elevate it from a reactive, problem-based approach to a proactive, performance-based approach. Comprehensive contract maintenance services provide 24/7 support and incident troubleshooting, single-channel access for onsite service and spare parts inventories to improve overall asset performance and optimize lifecycle management in a variety of ways:

- **Relieve maintenance demands** – contracted preventive maintenance services relieve in-house personnel of the need to track maintenance schedules or interrupt daily duties to attend to maintenance activities. They can also rely on manufacturer product experience instead of having to take time away from plant operations to build personal expertise on instrumentation.
- **Ensure rapid-response technical support** – plant management can adjust contract terms and costs to the level of responsiveness they require – from 24/7 telephone access, to next-day onsite service. Based on the nature of the problem and customer needs, instrument and analyzer repairs or recalibration can be done onsite or sent to a regional service center for quick turnaround.
- **Protect against employee turnover** – contract services help management weather staffing issues triggered by retiring employees and can close gaps in technical expertise among newer employees. Services that provide a user portal to track historical performance also protect the continuity of institutional memory in any event of employee turnover, whether triggered by retiring boomers or restless millennials. See The Bigger Picture Through Lifecycle Services. Having the same team of service technicians serving a WTP or WWTP plant multiple times per year pays dividends for maintaining specialized devices. It promotes consistency in terms of monitoring conditions, advising on software and control board updates, and identifying soon-to-be obsolete equipment facing reduced support.

True lifecycle support provides a trained eye, in-depth knowledge of equipment operation, and a shared database of service history that can be used to spot potential problems in the making, before they result in degraded process performance or product failure.

The contract service technician, in effect, becomes a knowledgeable strategic partner who can consult with a broad spectrum of upper management decision-makers about big-picture feedback and options for meeting their performance concerns.

- **Simplify Verification Testing.** Supported by verification software on flow meters that capitalizes on capabilities built into the instruments themselves, contract services can confirm flow performance within specified tolerances, without disrupting the process being measured. This provides accurate feedback on product performance — to optimize process throughput, minimize calibration expenses, and forecast upcoming maintenance concerns — without downtime.
- **Simplify Spare Parts And Consumables Management.** Depth knowledge of the product and continuous check of the devices when preventive maintenance is carried out onsite allow technicians to arrive onsite with the appropriate parts, filters, and connectors. Customer service programs that also monitor consumables use can ease plant operator concerns about managing costly excess inventories.
- **Empower In-House Personnel.** Even where contract services handle immediate onsite maintenance needs, in-house employees can still improve their operating or diagnostic skills through a variety of training opportunities offered in conjunction with maintenance services. If the contract service organization provides online tools to share a user database of equipment calibration, incident report, and maintenance history, in-house personnel can gain a greater appreciation of analytic performance and situations that require closer monitoring.

Consult On Compliance Or Optimization Projects. Having experienced contract service engineers familiar with plant operations and measurement or analyzer equipment creates a perfect opportunity to discuss plans to optimize existing processes or add new capabilities to meet changing regulatory requirements.

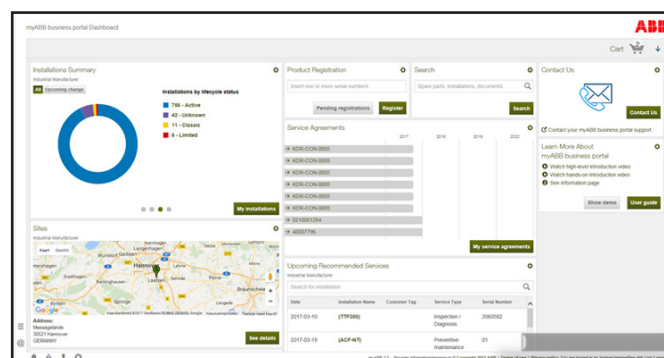


Figure.1 myABB business portal dashboard

Support CAPEX and OPE budget stability

Beyond improving maintenance performance through preventive and predictive maintenance, managed service plans also offer financial advantages in terms of both capital and operating expenditures (CAPEX/OPEX).

Budgeted services and warranty coverage deliver continuous maintenance support at a known, fixed operating cost. That minimizes the likelihood and expense of surprises in critical measurement and analysis applications. Extended lifecycle services can also provide a database of historical performance to guide decisions on future capital investments and help to defer the need to make those expenditures (Figure 2).

ABB provides an extensive selection of proven measurement and analytical products and solutions for power generation industry applications.

Using ABB's measurement products, power plant operators can maximize the efficiency of their assets and comply with local and international legislation. They receive access to data on many critical measurements needed, from combustion performance and water chemistry through to stack emissions.

Digital technologies are providing new opportunities to enhance processes and productivity.

This case study highlights the smart devices used in a range of power plant applications and a number of innovative solutions that combine physical devices with software to help deal with known customer needs.

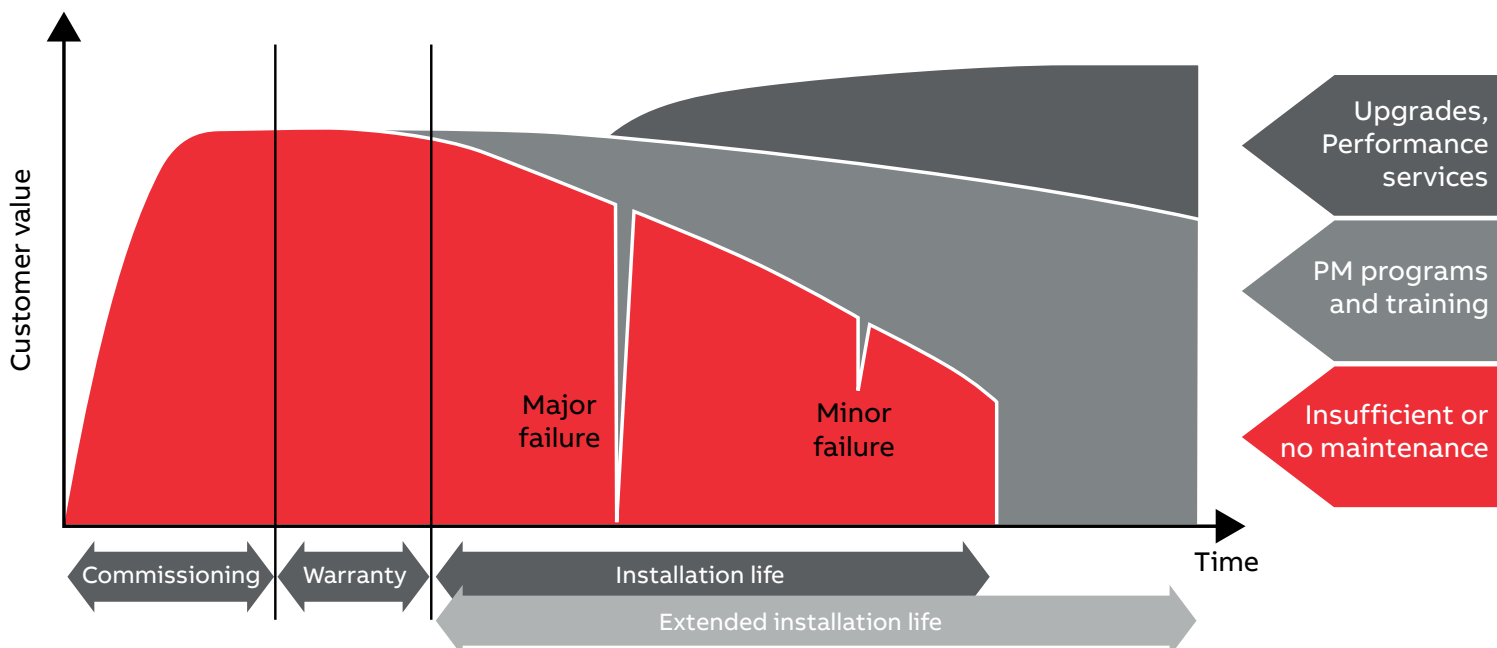


Figure. 2 Historical performance database aids decisions on future capital investments

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