

Energy audits

THE SMART WAY TO SAVE MONEY AND ENERGY



Optimizing energy usage
boosts profitability

Rising energy prices and stricter environmental regulations are the driving forces for improved energy performance. By managing energy-use more efficiently at your plant, you can improve profitability and reduce your company's carbon footprint.

What it is

An Energy Audit is an energy assessment service from Xylem TotalCare that helps municipal and industrial users to review the energy demands of their plants and identify ways to reduce energy costs and increase reliability.

This knowledge-based service is ideal for the 'energy-intensive' processes in municipal and industrial sectors, for example: pumping, aeration, UV and ozone systems.

How it works

Based on Xylem's extensive knowledge of wastewater transport and treatment, our highly-qualified specialists conduct a comprehensive evaluation of your plant, from visual inspection, data collection and analysis to the energy audit report with its detailed conclusions and recommendations for improvement. Early in the evaluation, we'll identify if we think significant savings are possible. If we think there is little potential, we'll tell you up front.

Why it makes sense

An Energy Audit will identify not only if your equipment will meet 'design conditions' (i.e. worst case) but also if it operates at peak efficiency under normal, day-to-day conditions. We'll identify ways to reduce energy consumption without compromising plant efficiency and reliability.



Why Xylem TotalCare

When you work with Xylem TotalCare services, you get secure, optimal operations that come only with broad engineering expertise in water and wastewater.

- Lower your energy costs
- Reduce your environmental impact
- Improve plant performance
- Prolong equipment service life
- Boost profitability

Case study 1

CHALLENGE: Reduce energy costs at a European Pumping Station equipped with four, 100kW Flygt pumps with variable frequency drives delivering 0.8 m³ per second (12,700 USgpm) and using one million kilowatt-hours of energy per year.

SOLUTION: An energy audit measured flow, head and power and analysed the control philosophy. By adjusting the settings on the VFD, energy consumption was reduced by an average of 10% and, at times, up to 15%.

Case study 2

CHALLENGE: Reducing energy costs at the world's largest UV TAK installation in New Zealand by introducing the latest UV lamp and ballast technology. The installation has been running for 10+ years, with 7,776 lamps in 12 channels and a maximum treated wastewater capacity of 16,000 liters/second.

SOLUTION: Condition audit plus programming and control/philosophy optimisation, as well as a test phase with data logging and overall analysis. The introduction of the latest technology has led to improved system robustness, more stable operating conditions and energy savings of up to 15%.

Price

The price of an energy audit depends on a variety of factors, including the size of your facility. Please contact your local Xylem service manager for more information.

How to realize significant energy savings



What are the benchmarks for energy use at your plant?
Where can you find energy savings? Which energy efficiency measures give you the best return on investment?

Energy audits give you solid answers to these questions so that you can optimize energy use and improve profitability.



- Condition audit
- Discuss issues with the customer
- Identify ideal candidates for energy audit based on customer input
- Quickly assess the improvement potential

- Assess available data onsite
- Check compatibility of measurement tools
- Develop data collection plan and test plan
- Discuss the way forward with the customer

- Gather data onsite
- Conduct intermediate assessment of collected data

- Analyze data and generate report (Back office activity)

- Present comprehensive energy audit report
- Recommend improvement options
- Provide cost-benefit analysis
- Support project management based on customer preferences
- Follow up improvement projects



Preliminary assessment

We evaluate the information available from the customer regarding the plant running costs and analyze the potential for energy optimization.

Audit planning

This includes discussing the placement and compatibility of measurement tools for data collection and secures the test plan. This step ensures optimal onsite activity with minimal disruption to daily operation.

Measurement

Establishing a baseline for energy usage is the first step. This phase involves tracking energy consumption and collecting of all necessary data from the plant.

Data analysis and report

Here we analyze the data, identify areas for improvement, calculate potential energy savings and present detailed findings in a report. We make recommendations to optimize energy use and outline an action plan for implementing energy-saving measures.

Recommendations

After presenting the report, we meet with you again to discuss our recommendations in depth. We also provide a cost-benefit analysis, based on the different options, to help you set priorities.



What can Xylem do for you?

Call 704-409-9700

www.xylem.com/totalcare

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