



Energy Savings Audits- Understanding your Savings Potential



Many pump users focus on efficiency ratings when purchasing new equipment, but a much greater source of wasted energy is found when looking at the overall system instead of limiting optimization to the pump design itself. It is rare that a system is operating with equipment that is optimized to deliver flow while operating close to its best efficiency point. More often, pumps are oversized for their systems and achieve the desired flow rate by throttling a valve. The friction added by this valve changes the system curve to achieve the design operating flow; this action is one of the greatest sources of wasted energy in a pump system.

Understanding how the pump is performing within its system and where there is potential for energy savings requires real field performance data. Most equipment does not have the full array of instrumentation necessary to collect all the data needed to make this assessment. Hydro can provide detailed data on pump performance through its field engineering division, Hydro Reliability Services, who routinely perform field testing to assess the health and field performance characteristics of pumps operating within their systems.



This field testing is the first step of the *energy savings audit* provided by Hydro Reliability Services. Once a walkdown of the system is completed and the field data is collected, they can use this information to identify areas where improvements can be made to reduce parasitic energy losses of the system. This process uses engineering experience in pump design and optimization as well as analytical tools, such as fluid dynamic simulation software. The end result is a collection of specific actions with associated estimated energy savings, which provide the end user with actionable information to improve the performance of their system.

Improving the energy usage of pumping systems not only reduces the cost of operating these systems and supports end users' sustainability goals, it results in safer, more reliable operation. Protecting employees, assets, the bottom line, and the planet... we call that a winning scenario.

[Learn more](#) about Hydro Reliability Services' full suite of field testing and troubleshooting capabilities.

[Contact us](#) to schedule your energy savings audit.