




SIEMENS



Industry Services

Energetic machine and asset analysis



Technology-based services for a greater competitive edge

Minimum downtime and the optimum use of staff and resources are key to sustainable success in industry. Siemens provides the basis for greater productivity, flexibility, and efficiency with technology-based services throughout the lifecycle of an industrial plant – reliably, globally, and around the clock. In-depth technology and product knowledge as well as industry expertise within Siemens' global network of experts ensure a considerable competitive edge.

Siemens is the ideal partner for continuously improving the energy efficiency of individual drives or entire sections of plants.

The challenge

No matter what the industry, increasing competition and cost pressures makes achieving business objectives harder every year. Well-established workflows and processes must now be scrutinized in every detail to ensure they operate at maximum efficiency, especially regarding energy use. However the instruments and equipment required to perform this analysis can be prohibitively expensive and specialist knowledge is usually required. Is it time to explore new options?

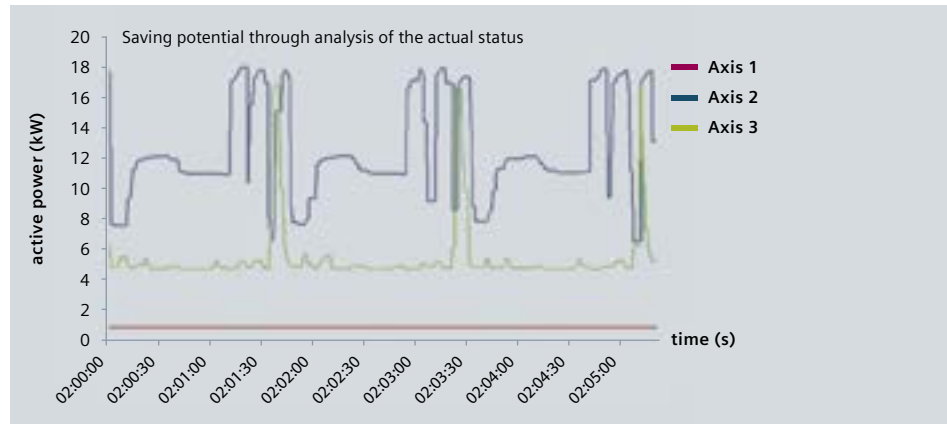
The solution

Specialized analysis packages for the energy efficiency assessment of plants and machinery are one successful approach. Based on the short-term measurement of plant and equipment, Siemens provides the relevant data and recommended actions that operators need in order to make sound decisions about upgrades or investments in new technologies.





Example of measurement setup



Load development of a hydraulic system: computed savings potential up to 60 percent by using a servo pump

This registered data is specifically aimed at improving the plant's energy performance in order to sustainably lower costs.

All-in-one package

To simplify handling, all of the required hardware and software components in the package are preconfigured. Siemens provides for a detailed identification, visualization, and analysis of the plant's energy flows.

Siemens combines consumption information and other parameters collected via its measurement equipment with operating data. This information is used to demonstrate the dependency of the machine's energy consumption on the respective operating state. This forms the basis for an initial evaluation of existing savings potentials and for improvements in energy management.

All data and analysis is then used to optimize processes and equipment in collaboration with the customer.

Wide-ranging measurement

The modular, easy-to-install measurement kits utilize SENTRON PAC multi-function measuring devices from Siemens to measure all relevant electrical variables. As required, the measurement kit can be augmented with analog measuring equipment to detect temperatures and flows – like that of cooling water, hydraulics, compressed air, and DC loads.

The benefits

Based on sound knowledge from Siemens analysis, operators can leverage saving potential and maximise the profitability of their plant. In Siemens experience, saving potential can be leveraged via the following areas (plant dependant):

- Designing shutdown concepts for downtimes due to applicative changes
- Developing more efficient drive concepts
- Modernization and retrofitting of drives and pumps
- Optimization of the activation behavior
- Performance improvements during nominal operation

Furthermore, all this is possible without needing to invest capital in expensive measuring equipment.

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