ENERGY SMARTS FOR THE WATER AND WASTEWATER WORLD

Sustainability & Efficiency for Water, Waste Water, and Pumping Systems

BCI Technologies is proud of its decades of service to our power and water customers. Over time, we started to notice parallels between the different needs of those two groups. While Energy Management Software is widely used in other industries, its potential to be applied to water treatment and wastewater treatment has been completely overlooked. BCI Analyst applies our knowledge of sustainability and efficiency from the world of energy to the unique challenges of demand-driven water and wastewater customers.

We understand that it's not how much data you have, but what you do with it that matters. Although modern technology allows us to collect a wealth of information about how systems operate, most of that information is unused, and is never transformed into valuable data. In the world of pumping, turning collected information into usable data is almost unheard of. BCI Analyst turns your existing data into meaningful information that helps you make informed decisions that can transform your operations from reactive to proactive.

Our BCI Analyst Solutions provide reports, live status updates, and the full support of our team to help you cut the life cycle costs of your facility. We help you to identify metrics and set goals based on real-time process data.

Making smart decisions for your facility takes information and expertise.

BCI Analyst has three modules that come together to form a complete solution so you can make strategic sustainable performance improvements.

THREE MODULES, ONE SOLUTION





METRICS









KNOW YOUR ENERGY

Many people think of energy as a commodity that is out of their control, but it's actually a precious resource that needs to be managed. Industrial energy plans are complex, including seasonal on-peak times and demand charges that can be ratcheted.

KNOW YOUR ENERGY COSTS

With real-time visualizations of energy costs, operators are able to make adjustments proactively to lower energy bills.

Comparing costs from one day to the next allows operators to see the impact that setting new demand creates.





KNOW YOUR ENERGY COST DRIVERS

With real-time visualizations of energy costs, operators are able to make adjustments proactively to lower energy bills.

Comparing costs from one day to the next allows operators to see the impact that setting new demand creates.

UNDERSTAND PUMP HEALTH



Meeting demand is the first priority of every pumping system, but it doesn't have to be the only priority. With advanced analytics and monitoring software, BCI Analyst makes it possible for you to visualize, track, and improve the health of every pump in every facility.

Most pumps operate at only 40% efficiency, while one in every ten operates below 10% efficiency. These low efficiency levels translate to a host of problems: reduced life of parts on one hand, and dramatically increased pump downtime and failures on the other. Handling deteriorating pump health after the fact doesn't have to be the status quo anymore.

BCI Analyst makes use of live monitoring, tracking over time, and data analysis to make the health of your pumps transparent. By analyzing process data like speed, flow, pressure and energy BCI Analyst is able to create accurate pump performance curves for each pump in a pumping system. Unlike manufacturer specifications, which lose accuracy once pumps are used



in the real world, our curves are generated from live data to show you exactly how each and every pump is functioning, and how its operation levels compare to its ideal design conditions.

With these insights, your facility can meet demand while also maintaining healthier equipment that will last longer and work better, decreasing failures, and reducing energy costs in the process.

TRACK YOUR METRICS

Tracking and analyzing performance data is a must to understand the successes and failures of your facility over time. The BCI Analyst Metrics module integrates all of the information available through the Energy and Pumping modules to provide a complete solution to understanding the past and creating a comprehensive strategy to predict and prevent future problems.



BASELINE + BENCHMARK

The first step with Metrics is to establish a

Baseline of system and process specific operations before any changes are implemented. This gives you a starting point to compare how changes implemented are impacting the facility. Once the facility has established a Baseline, it can be used to compare past, present, and future operations to understand the impact of any changes made.

Benchmarking compares data between similar equipment and processes, setting a standard that can be used to evaluate the quality and efficiency of the individual parts and processes.

ANALYZE

BCI Analyst Metrics brings together all of your facility data into one, comprehensive overview.

66.47%
68.61%
63.40%
71.74%
76.63%
77.66%
68.08%
75.64%

0	BEP Efficiency
<u></u>	Average Efficiency
•	KWh per Million Gallons
	KWh per pound of BOD (Biological Oxygen Demand)
<u></u>	kWh per pound of TSS(Total Suspended solids)
÷	kWh per pound of Ammonia

IMPROVE

Advanced Key Point Indicators are powerful tools for making operational improvements. An example used in In Lift Station systems is to track average pump starts in a 24-hour period and compare it to the average starts over a 30-day period to identify pumps that are ragged up and fail at a higher frequency.

These types of indicators are ideal in large systems that

tend to have too much data to sort through manually. Getting the right information in the right format is important. BCI Analyst Metrics highlights the data you need to see, so you can spend your time where it counts.

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