Self-learning chiller plant optimization through machine learning

How do you effectively optimize chiller plant operations? If you’re serious about making a real impact on energy consumption and operational efficiency, the OptiCx platform is a must-have solution. With a continuous, self-actuating optimization methodology, the OptiCx platform minimizes energy use across a cooling system. OptiCx customers have access to an entire team of plant optimization experts. And advanced relational control algorithms, which make continuous, automatic system adjustments, are at the core of the solution.

It’s an award-winning approach with a growing base of committed customers, and now the OptiCx platform is taking a big step forward. Introducing OptiCx Dynamic Sequencing: optimization software that learns and adapts over time. Available as an add-on for customers with a subscription to the OptiCx platform, Dynamic Sequencing learns how chillers perform in a variety of operating conditions. The software uses this data to improve overall plant efficiency by determining the most efficient chillers to run.

Dynamic Sequencing is configured to meet a plant’s chiller run-time requirements. The software analyzes a running total of recent chiller performance data, along with the plant load. It then predicts the next day’s load, develops optimal equipment combinations and sequences for maximizing system efficiency, and routes these recommendations to the Building Automation System (BAS).
Dynamic Sequencing works in conjunction with OptimumLOOP®, an operational module in the OptiCx platform. While OptimumLOOP determines operating setpoints and parameters to turn on or off an additional chiller, Dynamic Sequencing provides additional system instructions on which chiller(s) to use. The combined effect is the most powerful chiller optimization solution available, offering substantial reductions in energy and water use. When combined with Chiller Diagnostics — another OptiCx platform add-on product — Dynamic Sequencing assists in identifying maintenance issues.

If you’re serious about chiller plant optimization, the OptiCx platform is your starting point. And now, Dynamic Sequencing gives you an opportunity to boost efficiency even further.

Contact us at info@optimumenergyco.com to learn how you can use Dynamic Sequencing at your chiller plant.

**OptiCx® Dynamic Sequencing: Benefits**

- Extends the energy, water, and CO₂ savings that the standard OptiCx platform provides
- Improves operational efficiency
- Recommends optimal sequences for achieving maximum savings
- Ensures that the most efficient chillers are selected
- Prevents system performance drift

Dynamic Sequencing boosts the operational efficiency and energy savings that the standard OptiCx platform delivers. Light green areas show when Dynamic Sequencing was turned on at a customer’s plant.

**ABOUT OPTIMUM ENERGY**

Since 2005, Optimum Energy’s patented software and engineering expertise has helped customers reduce energy use in heating and cooling systems, the largest consumer of energy in buildings, by up to 50%. The OptiCx® platform combines technologically advanced HVAC optimization software with world-class expertise in system design and operations. It’s a proven, measurable approach that verifiably reduces resource usage—water, electricity, and natural gas—while providing detailed insights into how building systems are operating. The result is vastly improved operating efficiency, increased energy savings, and reduced carbon emissions.