SIEMENS
Ingenuity for life

How can you overcome operational shortcomings to achieve your business goals?

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Chilled water systems don't have to run inefficiently.
According to industry research, many chilled water systems are working far below peak efficiency, often due to flawed system design or poor operations and maintenance practices. For instance, these systems may be affected by:

- Overdriving the chiller by increasing the rate of chilled water flow
- Deferred maintenance
- Overlooking the importance of system sub-components

Inefficient operations have wide ranging effects.
Businesses with inefficient chilled water systems suffer from wasted energy—which can be difficult to diagnose and contributes to a perceived need for more equipment.

Thus, the average U.S. commercial building leaves **thousands of dollars** on the table every year; these are funds that could be diverted to more strategic investments that drive the business forward.

Combined with other system problems, including chiller life, chilled water flow bypass, constant volume pumping, static pressure reset strategies, and the like lead to excessive energy consumption and decreased equipment life. Add aging equipment and deferred or even ignored maintenance, and many buildings' cooling systems:

- Run at design intent conditions just 5% of the time
- Sacrifice occupant comfort to obtain energy efficiency goals
- Overdrive operations to achieve temperature and humidity requirements
- Risk unexpected system failure that cause business interruption and downtime

Ultimately, **overworked building systems may put your business at risk** – *but they don't have to.*

More than 50% of annual electricity use ...

... can be attributed to chillers alone, not to mention your other HVAC equipment*.

And, a poorly maintained chiller may use **30%** more energy than necessary**

Sources:
* FacilitiesNet.net
** North Carolina Energy Office

Chilled water system optimization offers an elegant solution

In the event of unexpected system failure, you may believe that new equipment is necessary. But the truth is that optimizing your chilled water system operations offers an effective, long-term solution that may avoid significant capital outlay.

Introducing technology that improves daily operations reveals tremendous potential for energy savings and operational improvements. An engineered approach allows your systems to respond to demand more effectively, and to deliver energy where it's needed. Not only are you better able to achieve temperature and humidity requirements, but your organization is well-positioned to achieve overarching business goals and prevent unexpected downtime.

Siemens Demand Flow®: Intelligent. Powerful. Proven.

The Siemens Demand Flow® solution was developed to optimize your chilled water system without sacrificing savings or building comfort. It can reduce the risk of unexpected downtime, lower costs, and extend your equipment's expected life. And, it can be implemented on any BACnet-compatible building automation system without shutting down your HVAC operations or interrupting your day-to-day business. Because Siemens owns this technology, there are no hidden, additional licensing fees to worry about each year.

Based on our decades of experience with hundreds of optimization programs around the globe, Demand Flow often delivers sufficient savings to offset implementation costs in about three years, and annual energy savings of up to 40% can be achievable.

Maximize your system optimization with Advisory and Performance Services

The Siemens broad portfolio of Advisory and Performance services includes preventive services, documentation management, predictive services, training and operational support system migration/modernization, retrofits and extensions, and much more. They can be implemented individually or combined for greater effect. Backed by consistent tracking and robust reporting, these services take a value-based approach that helps your facility meet your organization's business goals.

For more information, visit **usa.siemens.com/demandflow**

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