SIEMENS

Overcoming hidden operational shortcomings in HVAC

A smarter way to achieve your business goals.
siemens.com/energy-sustainability

Do you know what your chilled water systems are costing your business?
For many businesses chilled water and air distribution systems are one of the biggest contributors to energy wastage. In many facilities more than 50% of annual electricity use is attributed to building chillers alone, without factoring in other HVAC equipment. Annually, this amounts to thousands of euros wasted that could be used to drive businesses forward.

The underlying issues
The reasons for systems operating below peak efficiency include flawed system design and the adoption of poor operation and maintenance practices. It is common for chillers to be overdriven through increasing the rate of chilled water flow.

Facilities departments frequently ignore or defer equipment maintenance while also overlooking the importance of system sub-components and their affect on overall performance. In addition to decreasing the all-important efficiency, such poor practices also reduce a system's life expectancy, further contributing to increased costs. A poorly maintained chiller system is projected to use some 30% more energy than necessary a year to achieve the same comfort settings.

Global weather trends increase the challenge
Globally, we're faced with increasingly unpredictable weather patterns, which further complicate what is already a complex issue. A system which is overworked to meet the demands can fail unexpectedly, causing potentially significant business interruption and downtime.

The hidden costs of productivity and performance
Buildings which are not reliably comfortable or have poor indoor air quality can directly impact on employee productivity. Optimizing comfort systems can help improve occupants' productivity by as much as €1,000 per year, while still achieving energy saving objectives.

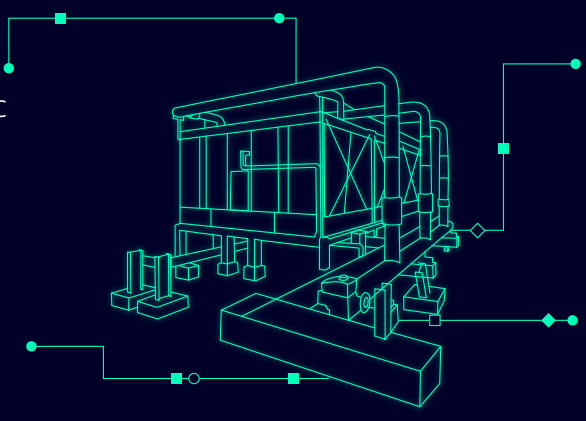
HVAC system optimization – a smart solution
Unexpected system failure can result in significant capital outlay, an outlay that can be avoided by addressing the optimization of chilled water and air distribution systems in the first place. An engineered approach allows your systems to respond to demand more effectively, delivering energy only where it is needed and thereby offering significant savings, as well as operational improvements.

Overcome operational shortcomings to achieve your business goals

HVAC systems run inefficiently

70%
The annual amount of energy HVAC systems typically consumer in a building.

50%
of many facilities annual electricity use, can be attributed to building chillers alone.



30%
more energy used on an annual basis by a poorly maintained chiller to achieve the same comfort settings.

€000's
of Euro's spent by businesses annually on energy that could be used to drive business forward.

Demand Flow® from Siemens: Intelligent. Powerful. Proven.

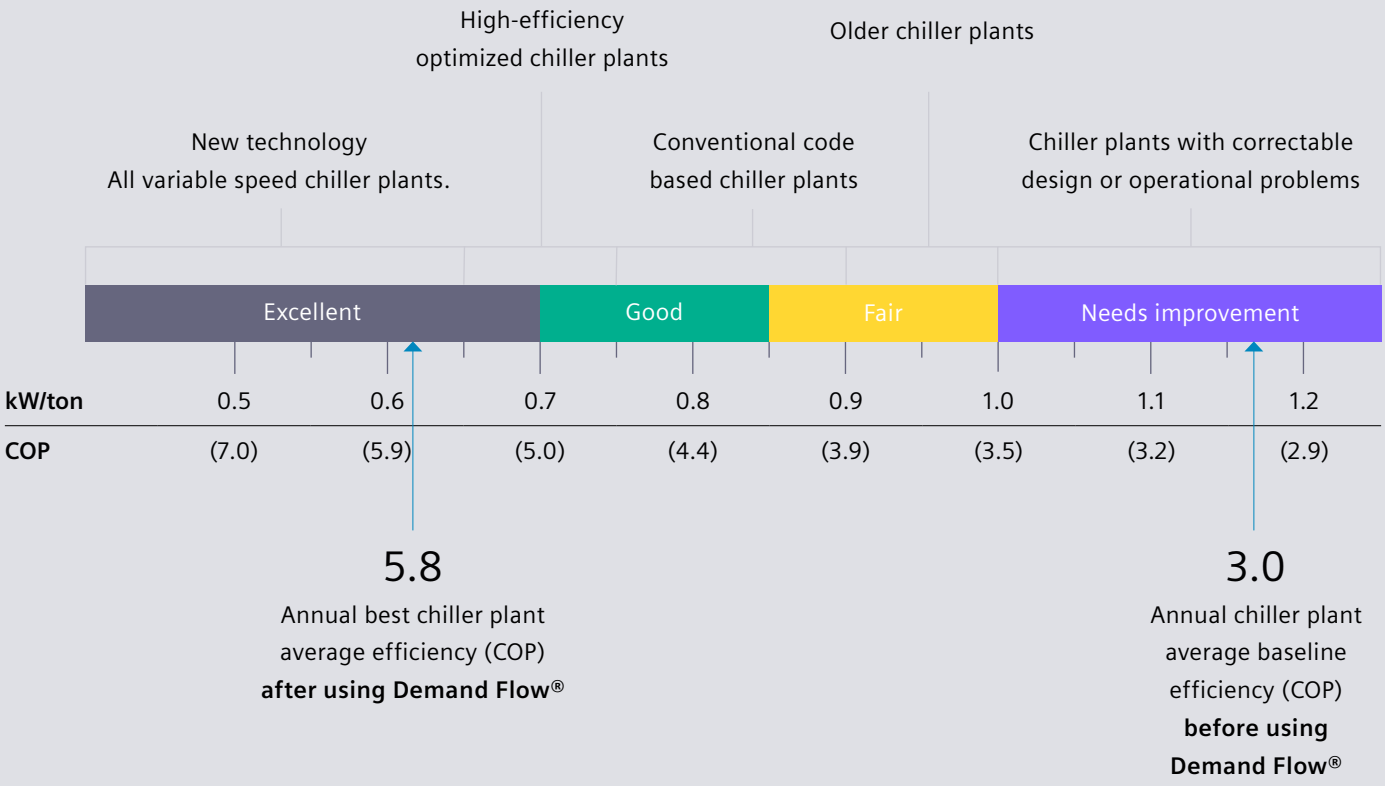
Demand Flow® from Siemens is a patented and proven chiller plant system optimization technology. It optimizes all energy consuming components controlled by system algorithms. Demand Flow® reduces the risk of unexpected downtime, lowers costs and extends your equipment's expected life.

It can be retro-fitted on any BACnet compatible building automation system with no interruption to dayto-day business. With Demand Flow® we can help you to ensure ongoing operational efficiency, with annual energy savings of up to 40% immediately achievable. This provides effective support of healthy financial returns and long-term value, offering a smarter way for you to achieve your business goals.

Demand Flow® from Siemens can be used across all vertical markets. Here's a snapshot of the vertical markets we currently have projects running in:

- **Airports**
- **Commercial offices**
- **District cooling**
- **Healthcare**
- **Hospitality**
- **Manufacturing**
- **Museums**
- **Pharmaceutical**
- **Retail**

ASHRAE COP classification. According to the ASHRAE coefficient of performance (COP), an excellent full load COP has a value over 5.0.



Publish by Siemens Switzerland Ltd

Smart Infrastructure
Global Headquarters
Theilerstrasse 1a
6300 Zug
Switzerland
Tel. +41 58 724 24 24

For the U.S. published by
Siemens Industry Inc.

100 Technology Drive
Alpharetta, GA 30005
United States

(Status 07/2020)