

Digital Solutions Drive Smarter, More Efficient Chiller Plant Performance in Hangzhou, China



Challenge

A leading property developer in China, known for its award-winning residential and mixed-use developments, operated a chiller plant room at one of its sites without a control system and reliant on manual operation. This led to poor chiller plant performance and very low operational efficiency.

To improve energy use and advance their sustainability goals, the customer aimed to transition to a fully automated, unmanned chiller plant room.

Solution

Trane delivered a comprehensive automation and optimization upgrade for the chiller plant room.

The team presented a clear control strategy—covering scheduling, sequencing, and variable speed control—and demonstrated proven success from similar projects. Trane also reviewed the customer's historical issues and explained how the new control system would resolve them.

Key solutions included:

1. Tracer SC+ control system upgrade
2. Variable frequency control for water pumps to improve chiller plant efficiency
3. Cooling Tower Optimization (CTO) to reduce total power consumption
4. Automatic start/stop control for boilers..

Result

With Trane's automated control system in place, the Customer achieved significant operational and energy improvements.

20% improvement in overall chiller plant efficiency compared with the period before installation of automated control system.

Project Highlights

Market: Hangzhou, China

Segment: Commercial

Services used:

- Tracer® SC+ Building Automation System
- Chiller plant optimization

Featured Solutions



Offering name: Tracer® SC+

At a glance:

- **AI Optimization** – Designed to work seamlessly with AI Control.
- **Seamless Integration** – Designed to be compatible with a wide range of building systems.
- **Future Compatibility** – Supports equipment from previous and future generations, regardless of brand.
- **Secure & Robust** – Our security protocols stand up to the scrutiny IT teams and are regularly updated.



Trane – by Trane Technologies (NYSE: TT), a global climate innovator – creates comfortable, energy efficient indoor environments through a broad portfolio of heating, ventilating and air conditioning systems and controls, services, parts and supply. For more information, please visit trane.com or tranetechnologies.com.

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