

Intelligent Chiller Plant Solution Powers a Major Transport Infrastructure Facility in Vietnam



Challenge

A leading transport infrastructure operator in Vietnam required a highly efficient chiller plant solution to support its large 16,000 RT chilled water system.

- High-efficiency chillers capable of significantly reducing total energy consumption
- A smart, advanced Chiller Plant Control system to ensure optimized, reliable operation while meeting strict redundancy and uptime requirements
- The ability to coordinate nearly 1,000 control points, including 8 chillers, 40 pumps, and 80 cooling towers

Solution

Trane collaborated closely with the project stakeholders—Owner, Consultant, and Contractor—to demonstrate the long-term value and reliability of Trane technologies for this critical infrastructure project.

Key highlights:

- Installed 8 × 2000 RT **CDHG2250 duplex chillers** using eco-friendly HFO R514A
- **Optimized chiller footprint** for easier installation and maintenance
- Implementation of advanced chiller plant control functions and optimization algorithms using **Tracer SC+ and Symbio** intelligent control technologies

Result

This integrated chiller and control solution delivers high efficiency, reliable operation, and full compliance with the project's stringent uptime requirements.

- **38,800 MT CO₂e emissions reduction** with ultra-low-GWP HFO R514A
- Chillers exceeded specifications, delivering a **COP of 6.65** vs. required 6.17
- Expected to deliver **5–7% overall energy savings**, with further optimization

Project Highlights

Market: Vietnam

Segment: Public Infrastructure (Transportation)

- Products & Services used:**
- 8 x CenTraVac™ CDHG chillers
 - Tracer® SC+ Building Automation System
 - Symbio® HVAC Equipment Controls

Featured Solutions



Product Name: Duplex CenTraVac® Water-Cooled Centrifugal Chiller

Model CDHG

At a glance:

- Capacity Range: 1500-2600 RT
- Refrigerant: R514A
- Direct drive, multi-stage compressor offers superior energy efficiency and high reliability
- Equipped with **Symbio™ 800** chiller controller that enable fast recovery after electrical shutdowns
- **Tracer** chiller plant control manage the rotation, staging and sequencing of multiple chillers



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