

# Trane Chiller Plant Solutions for Decarbonizing Your Buildings



Embark on your Decarbonization Journey with Trane. You tell us the vision for your building, and we'll make it happen.

Every **building** is unique.  
Every **solution** is different.



## Our Approach (How can Trane help)

### ASSESS

- Project the future of the space
- Identify goals and key regulatory drivers

### MITIGATE

- Develop application-centric strategies
- Implement the solutions
- Improve energy efficiency and sustainability

### MANAGE

- Ongoing optimization and proactive maintenance
- Continuous managing and monitoring



## Efficiency

### High Efficiency Chillers Systems

Efficiency means using less energy to deliver the same dependable comfort. At Trane, we can help you leverage the vast improvements in modern chiller efficiency and building automation systems to design high performance systems that dramatically reduce energy use.

1. High efficiency chillers increase sustainability gains while improving the bottom line.
2. We offer different levels of efficiency to meet business goals with options for free cooling and heat recovery.
3. Our best practices in system design unlock the full capability and advantages of the chiller and its system components.
4. Our Tracer® SC+ building automation system comes with pre-engineered Chiller Plant Control. This application optimizes the rotation, staging and sequencing of multiple units to serve dynamic building loads. It delivers flexible, repeatable plant control to help maximize energy savings, minimize operating costs, and extend chiller life.



## Electrification of Heat

### Electric Chiller-Heaters and Heat Pumps

Historically, the burning of fossil fuels has been the primary source of heat for comfort, process, space-conditioning, water heating and similar uses. Due to changing policies to increase use of renewable energy, electricity is becoming an alternative heating source.

1. Trane provides design guidance on how to reliably apply electrified equipment for efficient heating and cooling systems.
2. Our Comprehensive Chiller-Heater Systems offer flexible design options enabled by Trane controls to meet a variety of application needs.
3. Trane provides an expansive portfolio of heat pump, heat recovery, and multipipe solutions.
4. Storage source heat pump systems leverage thermal energy storage to extend reliable operation in cold climates by storing heat and dispatching it when needed.



## Refrigerant Management

### Chillers with Low GWP Refrigerants

Trane stays ahead of the curve when it comes to refrigerant preferences and regulations. We continually research, test and select the best and safest refrigerants available for use in our chillers.

1. Rely on Trane to have the right refrigerants at the right time.
2. For heating and cooling systems, we can help customers evaluate the options and select a low GWP refrigerant that will deliver the best performance and value for the specific application.
3. Our Refrigerant Management services ensure proper handling and thorough documentation. Trane provides professional refrigerant handling for worry-free compliance with EPA CAA Section 608.



## Renewable Energy

### Thermal Energy Storage Systems

Trane is committed to a low carbon future, looking beyond how efficiently energy is consumed to capturing and storing the lowest carbon energy available. We offer innovative solutions to support renewable energy by making it more dispatchable.

1. Our all-electric storage source heat pump leverages thermal energy to increase heating or cooling with renewable energy and extend the system outdoor temperature operating range. It captures yesterday's waste energy for tomorrow's heating to eliminate traditional heating equipment that relies on fossil fuels.
2. Adding thermal energy storage to chiller plants allows buildings to be grid interactive by providing the operational agility to shift energy loads from one time to another, and respond in real time to variable resources and pricing signals
3. Trane Thermal Battery™ systems use thermal energy storage to store energy when there is a surplus of renewable energy and dispatches that energy when renewable energy is less available.
4. In use for over 30 years, thermal energy storage is a trusted technology. It is proven, reliable, cost-effective and environmentally friendly.



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](https://trane.com) or [tranetechnologies.com](https://tranetechnologies.com).

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