



TRANE
Building Services

Trane Energy Manager™

Achieve a new level of efficiency every day



Efficiency matters

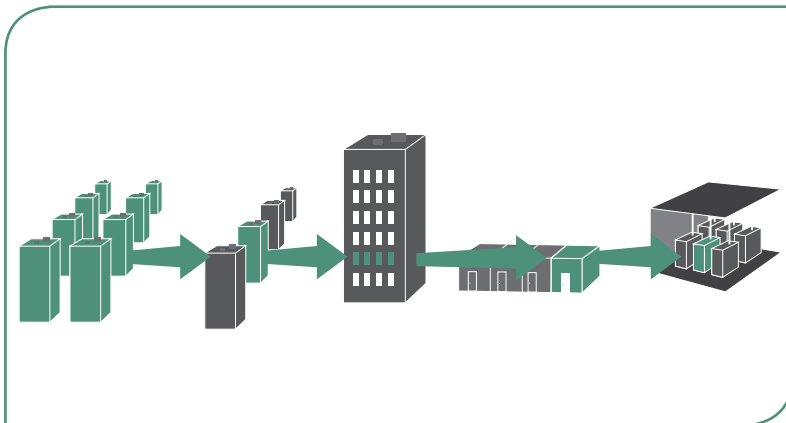


Energy costs can add up to over 30 percent of the overall operating costs for the average commercial building. Meanwhile, the instability of energy costs and global challenge of climate change are increasing the urgency to manage building efficiency more effectively. At Trane, we're addressing those concerns with efficient equipment, intelligent controls and technology-enabled services—including Trane Energy Manager™.

Smarter buildings. Better decisions.

Trane Energy Manager is a cloud-based building energy management service that helps you make smarter, more cost-effective decisions about the way you manage and maintain your buildings. It provides real-time insight to inform a wide range of building energy efficiency projects impacting both operating income and sustainability.

More than a one-time tune-up, Trane Energy Manager continuously drives building energy performance by finding energy waste in every corner of your business. It provides actionable recommendations that help you respond in time to save on utilities and maintenance activities.



From a campus of buildings all the way down to a single component, Trane Energy Manager gives you the insight and analytics you need to make better informed, more targeted decisions. You'll have the tools you need to continuously optimize energy use, establish and control budgets, and set performance targets at the building portfolio level, or across any subsystem.



Applications:

- Real-time monitoring aggregates all energy data—from utility meters, submeters, sensors and any building automation system—to continuously optimize and reduce energy consumption
- Advanced analytics reveal previously-hidden operational anomalies and guides our recommendations for Energy Conservation Measures
- Persistent commissioning pinpoints systems and subsystems that are running at incorrect times, operating simultaneously or running inefficiently
- Tracks the effectiveness of energy efficiency projects, retrofits or renewables

**Building Energy
Performance Assessments**

As part of your Trane solution, our team of energy professionals provides a quarterly review of your building's energy metrics and identifies improvement opportunities. You gain all the advantages of a fulltime energy analyst who is familiar with your building and energy goals, without incurring the costs of an on-staff position.

Improve Operations

Trane Energy Manager brings a level of clarity to operations that you've never had before. You'll find the benefits extend beyond energy efficiency.

Because you can see how systems are running in real time, you'll also be able to spot where service is needed to ensure occupant comfort, and to reduce the risk and of unplanned equipment downtime.

The Trane energy solution

Effective energy management requires a systematic approach to data and analysis. It also requires expertise to transform that data into real insight about how your building is truly operating—and how it can be improved—day in, day out. Trane has a unique approach that gets everyone engaged in progressing your energy goals: building staff, front-line employees, and business leaders alike. That's the Trane advantage.

Trane provides the complete solution:

- An advanced building energy management service
- 100 years of expertise in building systems
- Energy Advisory Services delivered by energy professionals



Find it. Fix it.

Featuring powerful visualizations and robust analytics, Trane Energy Manager delivers actionable insight by harnessing the wide array of data sources within your building. A web-based suite of applications provides always-on access to building performance information and management functionality via any web-enabled device. So you can spot inefficiencies and take steps to correct them—from anywhere, at any time.

Energy Baselineing

See how your energy improvement efforts are gaining results.

- Create and simultaneously track multiple baselines for buildings or assets
- Verify the impact of each new ECM or energy project

Savings Opportunity Reports

Detect system faults faster, and gain a better understanding of how they're impacting your operations: Optimize service calls, reduce energy costs, and gain greater peace of mind.

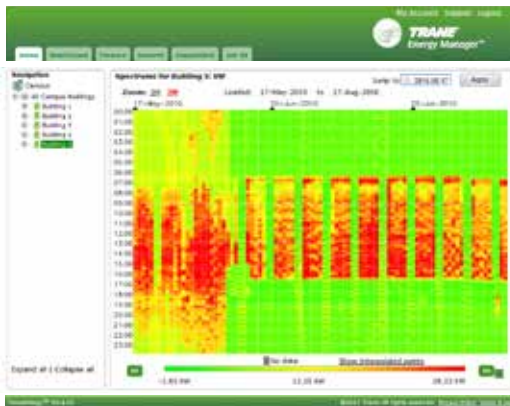
- Navigate Fault Detection & Diagnostics (FDD) using visual information that is easy to interpret and understand
- View each fault occurring anywhere, at any time, across a building portfolio as a prioritized list
- Reveal the impacts of energy waste by building asset and fault type, and see a detailed time-based analyses
- Track the status of energy conservation measures (ECMs) or faults

ID	Description	Energy Impact
\$ 7118	Heating Lockout Fault	711.82 MWh
\$ 5769	Economizer Operation Fault	45.20 MWh
\$ 5623	Economizer Operation Fault	45.03 MWh
\$ 3686	Heating Lockout Fault	368.56 MWh
\$ 13.70	Cooling Lockout Fault	0.06 MWh
\$ 13.57	Cooling Lockout Fault	0.06 MWh

Spectral Analysis

At a glance, sift through months of real-time meter data acquired over a 24/7 schedule.

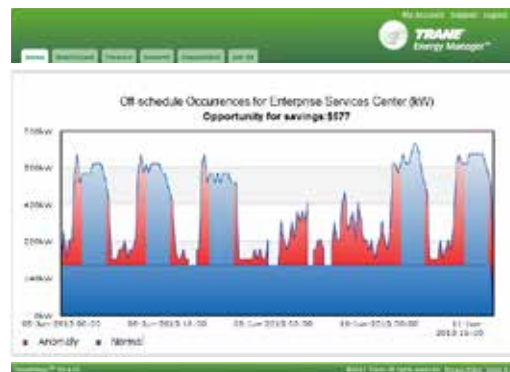
- Graphically visualize energy usage or demand over a select period
- Capture details about why and when your building is wasting energy



Off-Hour Analysis

Identify excessive off-hours energy consumption within a single building or across your entire building portfolio.

- Detect excess energy consumption during unoccupied hours
- Find instances of improperly-scheduled equipment



Flexible Reporting

Present data to various stakeholders with customizable reports based on the key performance indicators (KPIs) of your choice.

- Easily track portfolio totals for KPIs like electricity usage, peak demand and energy costs
- Budget and track energy costs



EPA Benchmarking

Automate EPA ENERGY STAR® benchmarking through the EPA Portfolio Manager, and keep your submitted energy profile accurate and up to date.

- Gain greater visibility, precision and granularity
- Constantly measure progress toward your target ENERGY STAR score

See the big picture—your way

Trane Energy Manager dashboards are an always-on resource that provides a personalized, real-time snapshot of energy use and costs. Energy efficiency and sustainability goals reach broadly throughout your organization. Customizable dashboards allow you to select various “widgets” to give each user their most relevant information, in an at-a-glance format.



For the Building Manager

Which of your buildings are the most efficient? Where should you be replicating those best practices? Dashboards can help property managers improve energy performance by calling out performance strengths, weaknesses and trends.

Top widgets for Building Managers

- Best Performing Assets
- Worst Performing Assets
- Today's kWh Performance



For the Director of Sustainability

Configure a dashboard that provides a real-time assessment of your organization's environmental footprint and insight into the resources your building is consuming.

Top widgets for Sustainability Directors:

- EPA Benchmark Tracking
- Today's Carbon Performance
- Month-to-Date (MTD) Water
- MTD Gas

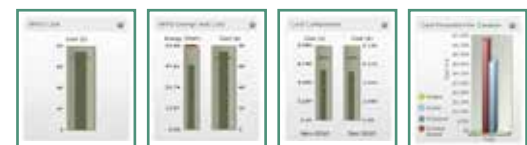


For the CFO

Provide immediate, real-time access to cost information that impacts the bottom-line. Dashboards can focus on information to help improve and control energy costs, budgets and NPV.

Top widgets for CFOs:

- Month-to-Date Energy Cost
- Month-to-Month Cost Comparison
- Cost Projection



**Trane energy-saving services:
Solutions for every situation**

Saving energy is a long-term commitment. Your needs will change and evolve as your building ages and technology advances. Trane offers solutions for every stage in your building's lifecycle.

From audits and retro-commissioning to managing energy retrofits or performance contracting, Trane offers full service solutions to help bring your building up to the higher performance standards that are possible today.

At Trane, we're engineering new ways to make buildings better. Ask today about our growing portfolio of innovative solutions for building efficiency.

Count on Trane experience

Trane people, systems, products and services work together to improve the energy efficiency of your building. Our extensive network of local support and energy experts includes:

- More than 200 Certified Energy Managers on staff
- Over 160 professional engineers providing technical solutions
- Over 700 Trane employees have been certified as LEED® accredited professionals by the U.S. Green Building Council





Ingersoll Rand (NYSE:IR) advances the quality of life by creating and sustaining safe, comfortable and efficient environments. Our people and our family of brands—including Club Car®, Ingersoll Rand®, Schlage®, Thermo King® and Trane® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; secure homes and commercial properties; and increase industrial productivity and efficiency. We are a \$14 billion global business committed to a world of sustainable progress and enduring results.



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LEED is a registered trademark of the U.S. Green Building Council.

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