

Case Study

October 2011



The Claridges New Delhi, India

The Claridges, New Delhi, declared India's leading luxury hotel at the 2009 World Travel Awards, recently completed energy efficiency upgrades that are expected to decrease average monthly utility costs by 10-15 percent.

Challenge

The owners of the 137-room hotel, which dates back to the 1950s, wanted to ensure sufficient cooling capacity and improved levels of guest comfort following planned renovation of guest rooms. An extensive energy audit identified a number of changes that would be required to deliver the desired guest comfort, reduction in energy costs and arrive at a system that was more environmentally responsible.

Upgrades to the plant would need to adhere to a rigorous project schedule to ensure that guest comfort was not compromised at any stage.

Solution

Based on a thorough understanding of the hotel's business goals, infrastructure needs and, health, safety and environmental requirements, the Trane team determined the best solution to maximize comfort, efficiency and savings.

New Comfort Systems Increase Guest Loyalty and Building Sustainability

Selected upgrades included the installation of high efficiency, CFC-free, chilled-water systems to accommodate the increased load and ensure run-time equalization. A secondary pumping system was added to



Front View of The Claridges, New Delhi

modulate water flow in the air-handling units, thereby increasing efficiency and reducing energy consumption and associated running costs. Electrical circuitry panels, cabling and other electrical accessories were also changed to reduce the energy consumption in the plant room.

In addition, improvements included upgrading air handling unit valves from three-way to two-way and introducing state-of-the-art, pressure-independent valves to achieve accurate modulation.

The hotel also entered in to an annual maintenance contract with Trane that included a zero downtime guarantee, to ensure that systems continued to operate at top efficiency. A Trane Scheduled Service Agreement extends the useful life of the systems, reducing costly repairs and improving performance. It assures that all periodic maintenance is performed by factory authorized technicians, as scheduled.

Result

Building on a long history of using the latest infrastructure systems and recently completed energy efficient upgrades, the management at The Claridges, New Delhi, is expected to decrease average monthly utility costs by 10-15 percent.

"The Claridges, New Delhi, demonstrates that not only new and modern buildings can be energy efficient, but historic landmark buildings can be, too," said Rubal Chaudhry, general manager, The Claridges, New Delhi. "We're pleased that with these upgrades, we will achieve all our goals while saving significant costs and creating a more environmentally responsible and sustainable property."

"Trane is dedicated to collaboration with The Claridges, New Delhi to ensure that all aspects of the system's economic life, from installation, operation and upgrades actually lead to higher energy efficiency, improved guest comfort and reduced environmental impact," said Rajesh Sikka, business leader for Trane India.



Trane Team at Work - Upgrade to Air-conditioning system delivers reduced utility costs and improved guest comfort.

Systems & Services at The Claridges

- Trane Select and Scheduled Service Agreement
- Trane 337 tons water cooled Series R Rotary Chiller
- Parallel-Decoupled hydraulic system
- Streamlining of plant room piping layout
- Replacement of corroded pipe headers
- Balancing of outstream water distribution
- Sectionalization of outstream distribution
- Integrated variable secondary water flow system with bypass arrangement, for secondary water flow modulation.
- Control of VFD frequency with installation of differential transmitter feedback loop.
- System balancing.



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