

Case Study: Analytics-enabled Energy & Operational Transformation at The W New York, Times Square



WHO:

THE W, TIMES SQUARE

WHERE:

NEW YORK CITY

WHEN:

JAN 2015 - ONGOING

1. Challenges

- The hotel wanted to explore newer and innovative ways to optimize energy consumption, especially considering that they already had a Building Management & Guest Room Management system
- The property felt that existing systems weren't commissioned accurately; there was a need to validate existing systems to ensure their performance as per design and operational standards.
- Energy prices in New York have been steadily on the rise, with the prices being consistently above the national average; making energy management all the more topical and necessary.
- The property had to adhere with Starwood's environmental policy focus on reducing energy consumption by 30%¹ and water consumption by 20%.

2. Solution

- A unique and singular aspect of Wipro's solution was being able to integrate both the Building Management System and the Guest Room Energy Management System with our platform.
- Wipro's seamless and logical delivery model included both retro-commissioning (RCx) followed by monitoring-based-commissioning (MBCx). After one-time corrections to enhance overall building performance, MBCx emphasized permanent energy performance metering and trending – for diagnosis of energy waste, for savings accounting, and to enable sustenance of savings.
- Wipro's platform integration capabilities included not just BMS but also external data feeds such as weather, occupancy, data from Property Management System etc.
- Wipro's solution integrates with the property's CMMS to streamline work orders/tickets to the engineering team on the field.

3. Results

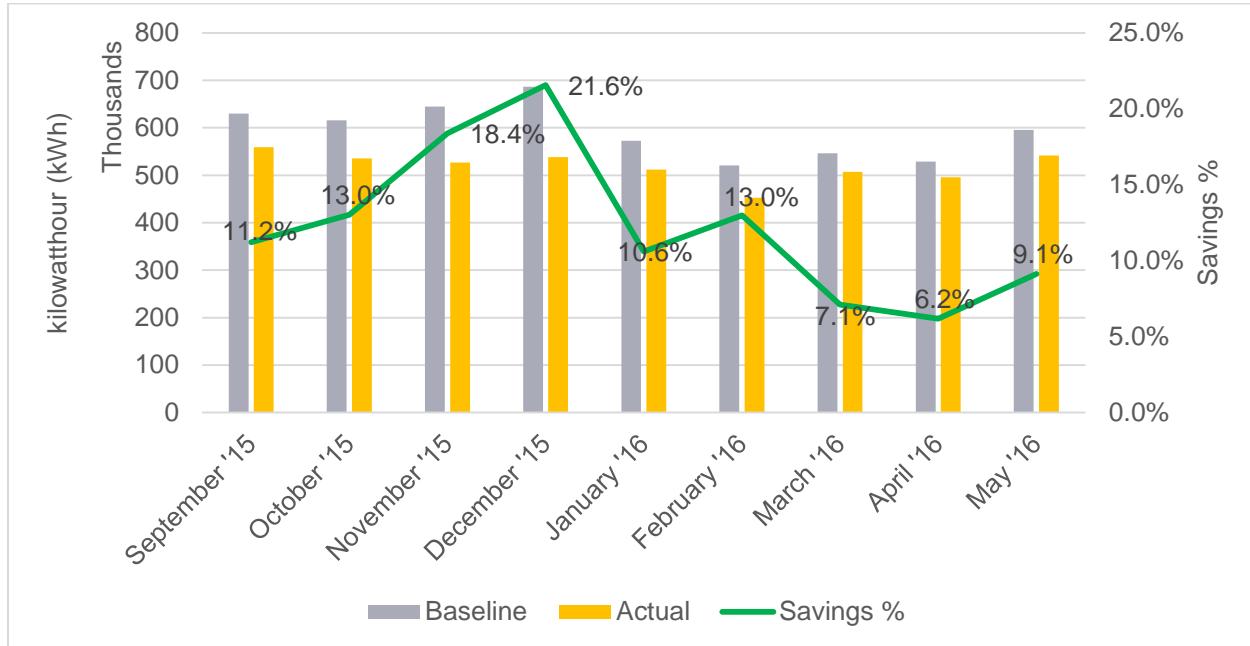
- Over 12% energy consumption savings achieved in less than 12 months. No additional CapEx investment
- Improved guest comfort levels; comfort-related guest complaints have reduced by over 20%.
- Return on Investment of less than 4 months for the property.
- Improved equipment life due to predictive maintenance.
- Through Wipro's program, the property has obtained greater value from CapEx investments.

4. Lessons

- A typical large luxury hotel contains a myriad of equipment and control systems of various ages, all exposed to fluctuating weather and occupancy schedules. Therefore, it is necessary to perform installation, start-up, and operational verification of such equipment appropriately.
- The property's controls tend to deviate over time and it is crucial that a regular check is performed to ensure that they stay within acceptable limits.
- A typical large luxury hotel environment tends to be dynamic due to weather, occupancy etc.; any good energy management program needs to match up to this fluid environment and be able to identify anomalies and correct them in near-real-time.

¹ Compared to a 2008 baseline.

Baseline vs Actual – Energy Savings



- The electric energy use difference is calculated after performing weather and occupancy normalization.
- Energy use in 2015 and 2016 from Sep'15 is reduced significantly compared to that of previous year (2014) which is the baseline year. Savings of 12.2% has been realized by the hotel.

Wipro's unique and singular solution has integrated multiple manufacturers of BMS, EMS, Guest Room Energy Management System and CMMS into a centralised platform bringing in visibility, benchmarking and consistence of policies

