



3.5%

overall energy saving (Year 1)

16.8

months ROI (3 Years)

Case study: Hilton Hotel, Canary Wharf

Background

The Hilton Hotel is in the heart of Canary Wharf, London where it predominately serves the business traveller. The hotel was built in 2006 and has 282 guest rooms. The hotel benefits from meeting spaces that can accommodate up to 400 people and over 15,000 sqft of flexible space for many types of events. In addition it also has a number of dining facilities, bars, fitness suite, sauna and steam room.

The hotel has an Automated Logic BeMS, 3 Chillers, 15 AHU's, 5 Boilers and intelligent room controls.

Challenge

The hotel has always been one of the best performers in the Hilton Group from an energy efficiency perspective, which has been down to a combination of the building infrastructure and the Chief Engineer that has been responsible for operating all technical services at the hotel since it opened. With the hotel already being energy efficient making further savings was going to be challenging. The Hilton Group considered if we could make savings at this hotel, we are likely to make savings at most of the Hilton Hotels.

See the solution overleaf

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Quick facts

Annual Savings of £12,498

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7.0% saving of HVAC energy spend

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Analysed base line data and energy profiles through Optimised Analytics

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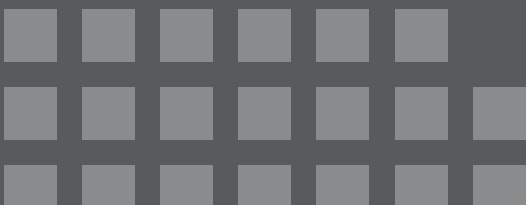
BeMS improvements & optimisation ensured constant comfort and efficiency

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Modified control strategies to improve energy efficiency while improving guest comfort

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Optimised Bureau provides continuous monitoring to identify anomalies



Solution

The objective was to make energy savings through optimisation of the existing assets and systems already in place. The BeMS was reviewed, a list of energy conservation measures was developed and agreed with the hotel. An action plan was put in place to implement changes over a number of weeks/months, working with the technical services team.

A controller was installed to collect the historical data from the Automated Logic BeMS systems that could be pushed to the Optimised Analytics platform. The Analytics and aM&T platforms were configured and our Optimised Bureau team utilised the insights to make informed decisions about further optimisation strategies, whilst maintaining the energy conservation measures.

Analytics and Optimisation

The combination of technology (Optimised Analytics / aM&T) and expertise (Optimised Bureau) provides the winning combination to ensure energy saving measures are not only identified, but acted upon. The Optimised Analytics import around 500 points from the BeMS every 15 mins and it is this data that feeds the analytical rules that help us ensure that the hotel remains optimised.

The Optimised aM&T platform focuses on the metering, analysing data that allows continuous performance monitoring of energy consumption. As issues are identified our skilled BeMS engineers remotely connect to the hotel and make changes accordingly, while keeping the technical services team aware at all times.

Results

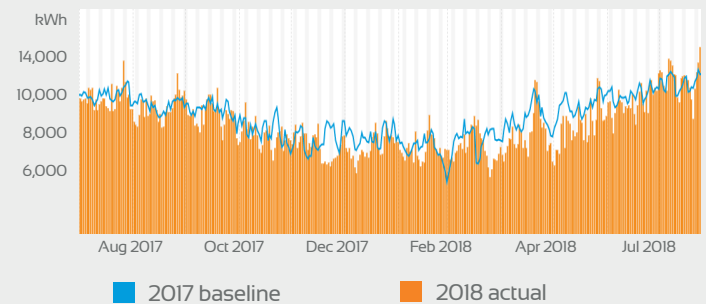
Working closely with the technical services team has enabled us to achieve 3.5% kWh reduction in the first year that was inline with originally projected forecast. Over the next 2 years the goal is to increase the savings by a further 1% per annum with additional energy conservation measures generated from the Analytical data.

Year 1 Results*

£ Savings	£12,498
CO ₂ Reduction	13,699 kg
kWh Saving	180,467 kWh
% of Total Energy Spend	3.5%
% of HVAC Energy Spend	7.0%

* Figures based on actual data from Aug 2017-July 2018

Annual Comparison



“Optimised Buildings has provided further insights and energy saving measures that with new analytical tools, skills and resources that were not previously available to us. Through our working partnership we are now squeezing further energy savings from what was already a very efficient hotel.”

Paul Wallace, Chief Engineer
Hilton Hotel (Canary Wharf)

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