

Case Study - The Mille – Focus on Visibility



Background:

Our client manages The Mille, a substantial commercial office complex in West London, built in the 1950's. It comprises 100,000 sq. ft over 12 floors with full air conditioning and four passenger lifts. The total annual spend on electricity and gas in 2009 was £215,021 with a combined annual use of over four million kWh. This produced CO₂ emissions of 2,226 tonnes. The challenge was to reduce the energy consumption of the building without negatively impacting on tenant comfort levels.

Service Provided:

An energy survey was completed in July 2009 to assess the building's energy consumption and determine the viability for our monitoring package. A monitoring solution that incorporated sub-metering on plant and lighting was designed and installed to bring visibility to the building's energy consumption. This depth of visibility had not been previously available.

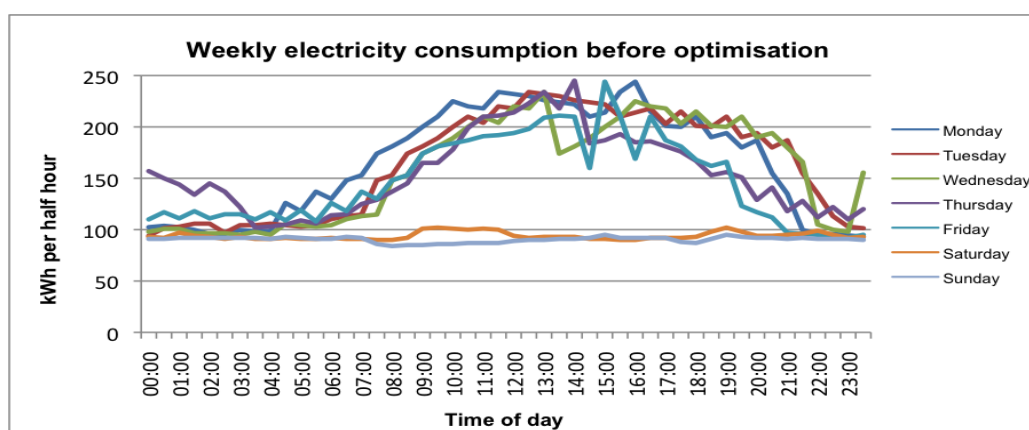
Using the half hourly data acquired, our team of technicians and analysts were able to quickly profile trends and target areas for reduction, as well as identify areas of missed opportunity and initiate remedial action on key areas of concern. Working with the building manager and the mechanical and electrical maintenance company, these recommendations were implemented and results were quickly delivered.

The Results:

- ✓ *By employing the services of Eco-monitor for monitoring, analysis and insight, an immediate reduction in energy consumption of 10% was achieved. This reduction quickly increased to 20% as consumption profiles and trends were identified and acted upon.*
- ✓ *Electricity consumption will be 300,000kWh lower than last year.*
- ✓ *CO₂ emissions will be reduced by 161.1 tonnes.*
- ✓ *A saving of £23,750 will be achieved in year one due to lower consumption.*
- ✓ *Commercial payback will be achieved within 18 months.*

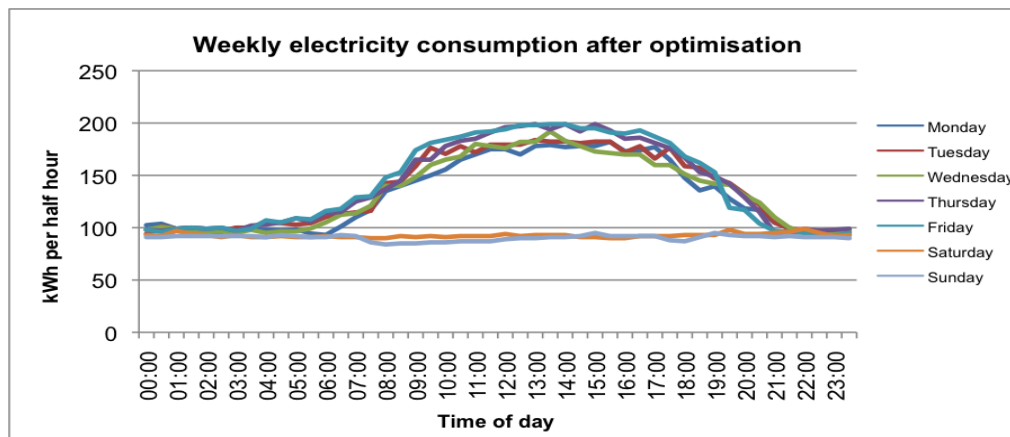
Focus on Visibility - If you can measure it, you can manage it.

The two graphs below illustrate the electricity consumption profile before the Eco-monitor recommendations were implemented, and the improved profile that came as a result. Stability and consistency are very evident after optimisation has been completed.



In the graph above, the out of office hours consumption was identified as an area of wasted energy, and work on the control settings for individual plant, for example chillers and ventilation, has resulted in significant savings.

The graph below illustrates how consumption has moved in-line with tenant occupancy and runs at a minimal level during weekends. The consumption is lower and less erratic.



With consistent focus and engagement from the Eco-monitor analytical and technical teams, these savings are sustainable, and the next stage energy efficiency plans are already in progress. Additionally, with energy costs set to increase, exposure to this volatile energy market has been minimised for our client and their tenants, as well as improving the building's environmental performance.

Going forward, the key is to continually monitor consumption, with the objective of reducing and managing carbon emissions and costs. Eco-monitor work proactively to deliver the most relevant cost effective energy efficiency solutions that will deliver sustainable results. This is the feedback from our client about our proactive reports and interactions with the building manager:

“These reports are really doing their job at The Mille. Ken [the Building Manager] looks forward to receiving his weekly updates and we are learning so much about what is working and what we are told is happening. Keep the info coming and THANKS James and the Eco-monitor team.”
Yvonne Smith, Property Manager, Cheval Properties.