

MAKING ENERGY AUDITS WORK: ARE WE DOING ENOUGH TO PREVENT REPORTS BEING LEFT ON A SHELF?

This paper was put together following the CBx breakfast briefing in April 2014, to summarise the open discussion around the values of the current energy audit process, validation of data and industry best practice with a panel of experts.

Energy audits describe a broad range of investigations from a quick walk-through to a comprehensive analysis of the energy consumption of an occupied building or facility. When used to their full potential, they can be very powerful tools. 'A poor energy audit is one that costs more than 10% of identified energy savings' says Ed Horgan, Partner at Briar Associates.

"Energy audits are now an expectation from most of our clients"

- Ian Shaw, Energy Manager, Norland

Firstly, they establish a baseline for the building against which any deviations can be measured. Consumption profiles can be used for high-level diagnostics. A comparison to previous profiles will highlight any increases or decreases in end use loads, which can inform the areas for further investigation; this may lead to uncovering related issues around occupant comfort, air quality and day lighting levels. In some cases it is very

difficult to establish a baseline which can indicate other issues such as poor interfacing between systems, commissioning problems or maintenance issues.

"It's important to ensure that the format of the reports is user friendly. Keep the audience in mind"

- Mitch Layng, Energy Manager, M&G Real Estate

At design stage, they provide robust data which can contribute to making more accurate operational predictions. Lessons learned from a previous building can drive the design of the next; what worked and what didn't in terms of ventilation and thermal comfort, how the absence of a draft lobby contributed to high energy consumption, CO₂ set points against heating and



ventilation requirements, controls for systems and many other factors. In order to make full use of the information generated and promote change in the industry, all protagonists need to have access to the data so that they are able to influence the process at their respective stages.

KEY RECOMMENDATIONS:

- Energy Audits must be perceived not as 'snapshots in time' but as ongoing 'building fitness programmes'.
- Fostering good relationships between supplier and client is a crucial part of the solution.
- Client-side managers should compile a set of energy consumption KPIs to facilitate ongoing improvement.
- Maintenance contracts could be augmented to encompass regular re-commissioning of a building.
- Software could have an important role to play in the streamlining of the auditing process.

FULL REPORT:

<http://cbxchange.org/knowledge/whitepaper-making-energy-audits-work/>

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