Workplace Footprint Tracker:
Energy Smart Metering, Display and Management

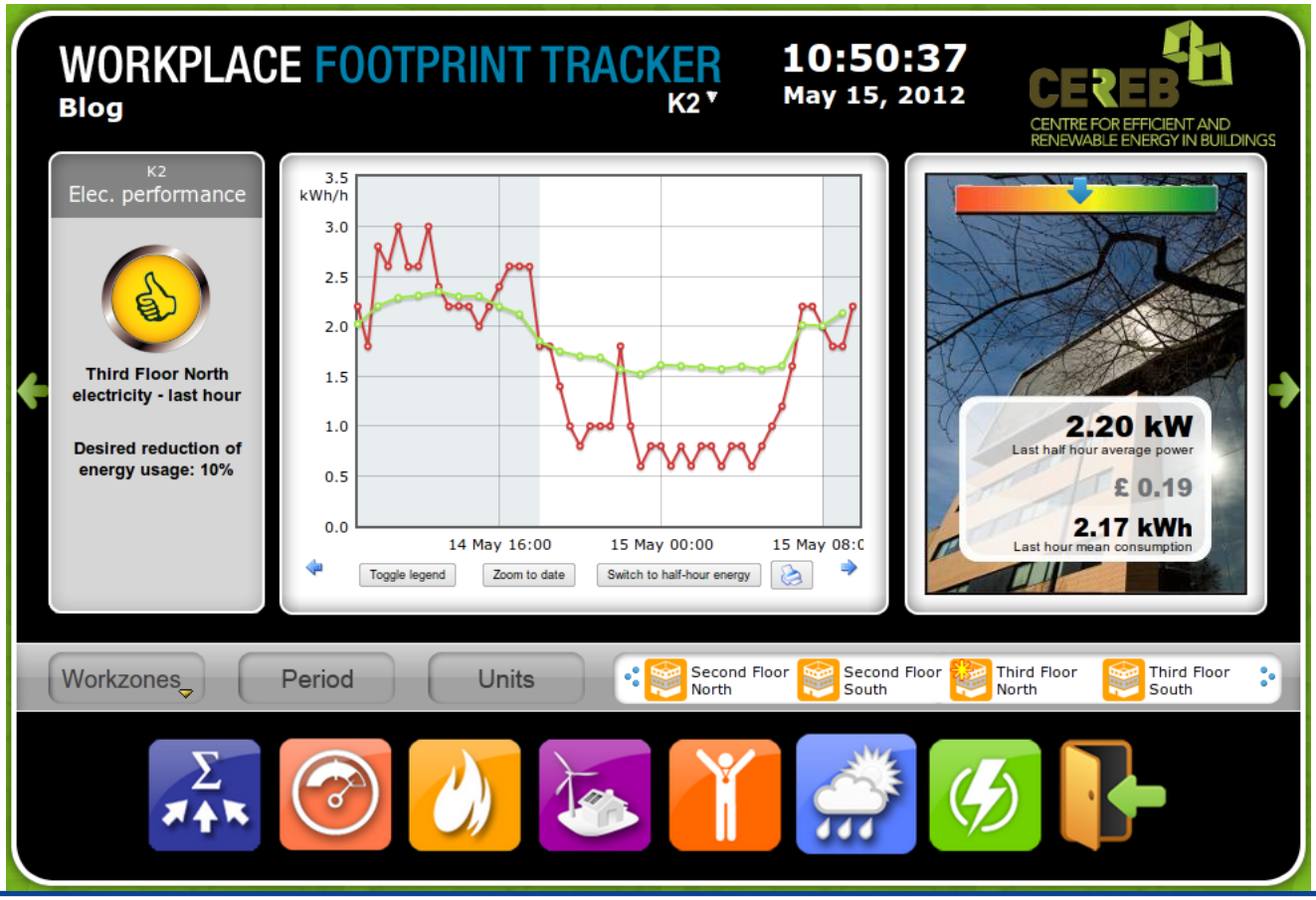
The most cost-effective and environmentally friendly energy is the energy which is never used.

With rising energy prices and growing awareness of the environmental cost of energy use, it is important to remember that the most cost effective and environmentally friendly energy is the energy which is never used. The full impact of climate change is still hard to predict but actions are required. From a business perspective it is important to act now since it will save money, resources and bring a competitive edge in a changing world.

The Workplace Footprint Tracker is a web application which assists organisations to save energy including electricity, gas and water in individual buildings and entire estate portfolios. It provides real time energy monitoring, visualisation and management to identify and eliminate energy wastage.

Building Sustainability can adapt the Workplace Footprint Tracker service for individual organisations. Energy use information is collected and presented on dashboards which are tailor-made for each organisation with a unique set of applications and modules.

The Workplace Footprint Tracker is not just a tool for energy managers. It is a tool for the modern workplace where all building users are seen as active managers of energy and resource usage.



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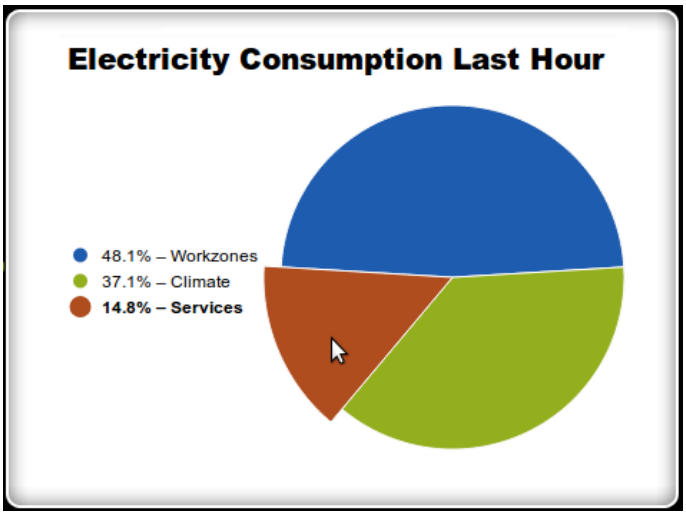
Building Sustainability

"The behaviour of occupants in a building can have as much impact on energy consumption as the efficiency of equipment". WBCSD

Participants in Change

The purpose of the Workplace Footprint Tracker is to make a change, to save energy. An efficient way to achieve a reduction of energy use is to engage everybody in a building to join the project: Financial directors as well as energy managers and sustainability managers. Not the least the building occupants can make a change since it is often they who use the building services. The Workplace Footprint Tracker is even able to control the energy usage automatically based on schedules, occupancy, and sensor data.



Interactive Pie Chart

Energy Managers

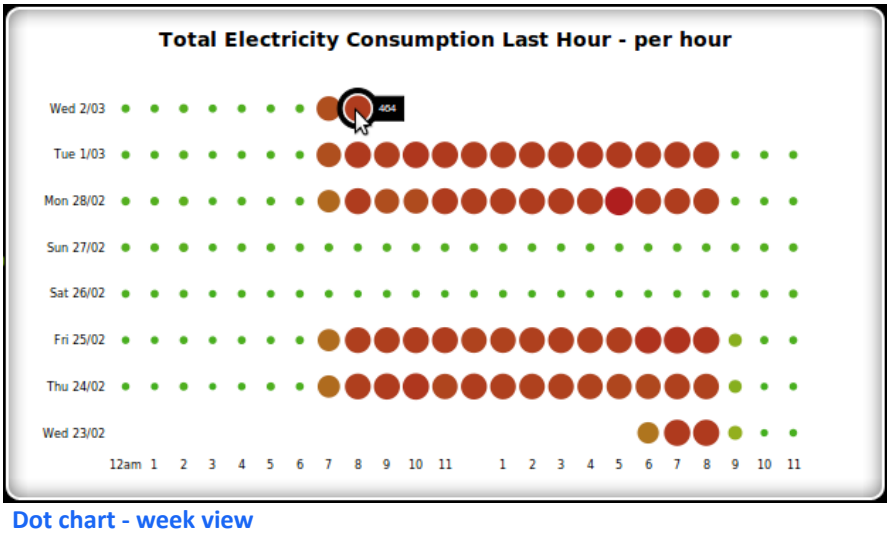
The web-based tool uses an array of different types of interactive charts for displaying the energy consumption in a separate building or in a estate portfolio. The visualisation is top-down showing the overall energy consumption down to individual building areas or even down to individual powerstrips.

Setting a target for reduction in energy consumption will make the Workplace Footprint Tracker display, historically as well as in real time, how well the organisation meets the target. Not only for the building as a whole, but even down to detailed level.

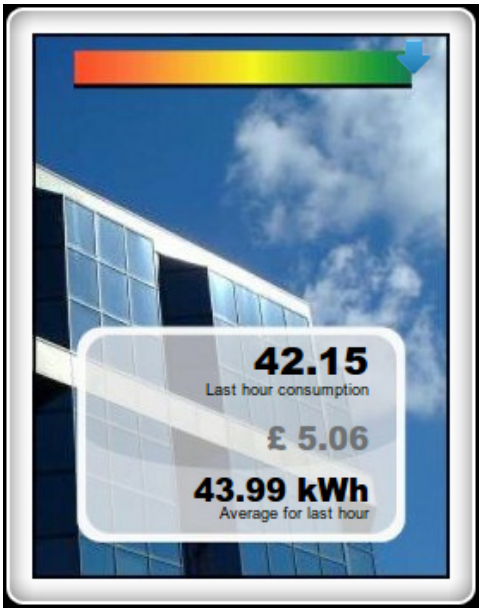
Locally generated energy from Renewables (Photovoltaic Panels, Wind Mills, Solar Thermal, and Heat Pumps) can also be metered and visualized by the Workplace Footprint Tracker as well as included in calculations and reports.

Real time display of energy certificates (DEC) will show how well a building performs in comparison to similar buildings.

A blog feature makes it easy to communicate on energy consumption and on actions affecting the consumption. The blog posts can be linked to the charts displaying the energy consumption and be shown as interactive events in the charts.



Dot chart - week view



Current status view

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"30% of the energy which office buildings consume is wasted." US Environmental Protection Agency

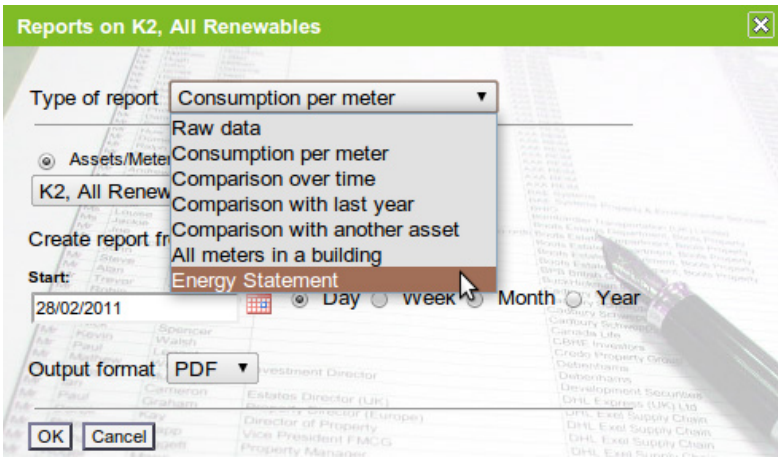
Financial Director

The Workplace Footprint Tracker automatically collects 24 hour detailed information about overall energy use as well as for different parts of a building. In order for a holistic view of energy and resource management in a building it is also possible to handle manual values as well as importing data files of different formats like CSV files.

Detailed data and a large array of different reports serve as a support for accounting and decision making. The precise and detailed information that is possible to get from the system can be used for internal billing. We also support a tenant feature, so each tenant can have its own view and its own billing data.

The system provides the tools for following up on set targets and on the outcome of changes, e.g. economic and environmental savings due to change of electricity supplier.

The system will provide significant savings for companies required to comply with regulations such as the CRC Energy Efficiency Scheme and certification such as ISO 14001 and 16001.



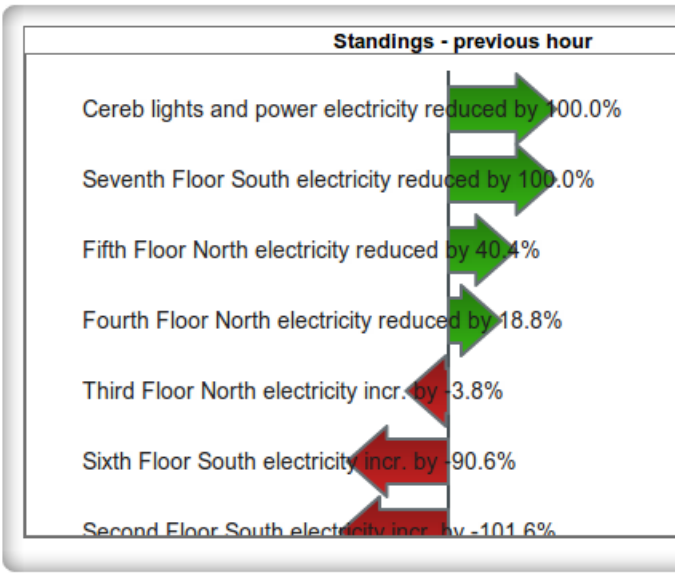
Reporting tool

Building Occupants

The Workplace Footprint Tracker respond to the increasing interest around energy consumption issues in the workplace from the modern workforce by equipping the building occupants with tools for reducing energy and resource consumption as well as visualising the work around these issues.

The system functions as a channel making it easy to submit suggestions for increasing the energy efficiency as well suggestions for improvements to the indoor climate and environment. It is also possible to do actual management of the indoor climate by using our extension product, the Energy Resource Scheduler.

Information on energy consumption and carbon emissions is generally hard to grasp. The Workplace Footprint tracker makes this information understandable for all and easily accessible by for instance using different comparisons and by presenting the data on digital signage. The part of the workforce that generally have an indifferent attitude towards energy and carbon emissions issues can be reached by the use of the league table inciting competition between departments or other organisational units.



League table

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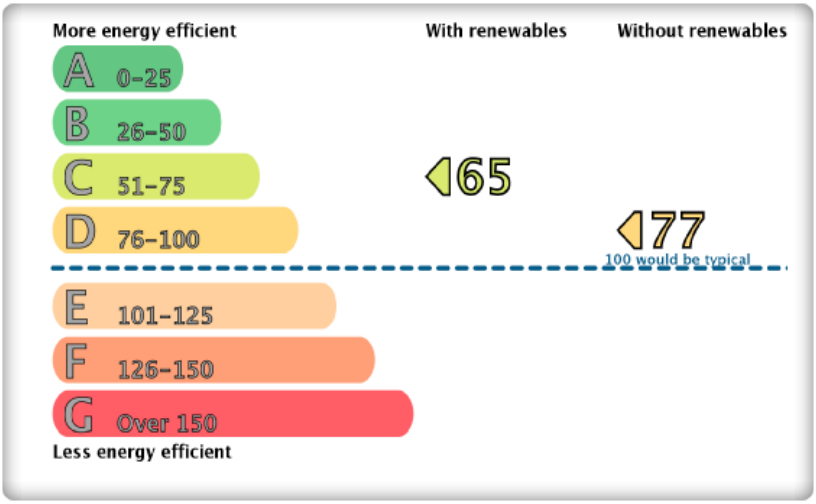
"Innovations in sub-metering and scheduling can reduce expenditure on energy by more than 30%"



Near Realtime Display Energy Certificate

Facility Manager

By using submetering techniques the Workplace Footprint Tracker collects 24 hour detailed information about energy use within different parts of the building e.g. work areas or items of equipment. This highlights potential energy savings.

Half hourly consumption data is collected for electricity, gas, heating/cooling, water and other environmental indicators. This data can be collected half-hourly or hourly from:

- Smart Meters
- Building Management Systems (BMS)
- Existing Pulse-Enabled Meters

By being specialised on energy consumption and carbon emissions The Workplace Footprint Tracker is a complement to traditional building management systems to fulfil your environmental plan and reduce your carbon budget.

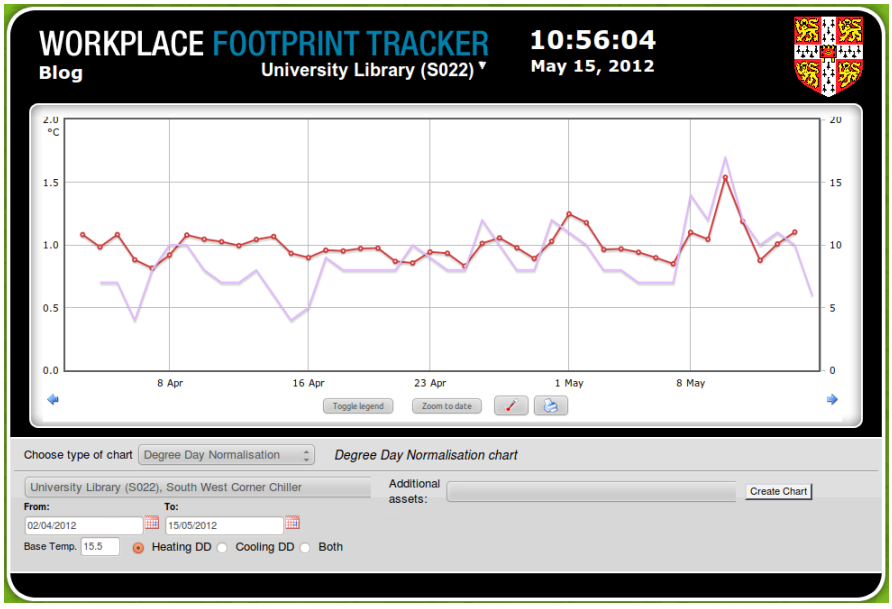
The Workbench is an additional tool for Energy Managers that will assist the data analysis work. It contains tools for CuSum-analysis, DegreeDay normalisation, regression analysis, and much more.

Corporate Responsibility Manager & Sustainability Manager

The Workplace Footprint Tracker can track and follow up on energy consumption as well as consumption of other types of resources; e.g. water, gas, paper, waste etc. It will serve as a channel for communicating to building occupants and the public on the consumption and management of resources.

Features like digital signage, green tips and challenges to commit to certain tasks will assist in engaging the building occupants. The league table feature is another efficient way to enforce behaviour change by inciting competition between departments or workzones.

Interactivity through sms, email or Twitter will make it possible to collect ideas, feedback and suggestions on energy efficiency from occupants or the public. It is even possible to let the building be able to respond to simple questions on resource usage, resource management, energy consumption initiatives or current status.



Energy Manager's Workbench

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