



Smart Impluse

SMART Impulse have developed an innovative device that identifies the power consumption of each type of equipment in a building from a single measurement point varying from lighting, air conditioning, heating to IT equipment.

The Challenge

At Bouygues E&S, an Equans company, we recognise the negative impact the built environment has on the world and therefore, the important role we play in reducing the sector's carbon footprint. Thus, we partnered with SMART Impulse to help tackle our own energy consumption as well as support our clients with their carbon reduction plans through the integration of technology-driven solutions.

Solution Overview

Thanks to a dedicated meter and patented algorithms, the technology developed by SMART Impulse allows you to identify a building's consumption by end-use. This crystal-clear view of the sources of consumption enables targeted energy savings and enhanced monitoring over the long-term.

The smart impulse team have also developed a tagging device which can connect to almost any piece of equipment and isolate it so that it will be identifiable on the software. This means there are virtually no limits to the services and equipment that this device can identify, monitor and measure.

The device can be installed non-intrusively in under one hour with no tools and no interruption to power either on the outside or inside of the main LV distribution panel.

We partnership with SMART Impulse was developed through our international innovation programme – Matching Up. Through the programme Bouygues Construction identifies start-ups that have innovative solutions that will shape the industry services of tomorrow. The successful partnership has meant that Bouygues Group have installed smart meter devices across a number of sites throughout the world.

Smart Impluse at The Body Shop

The Body Shop is owned by Natura which is a B Corp accredited organisation. In order for the Body Shop to meet these requirements and effectively understand their utility usage, we delivered the SMART Impulse System solution at various sites.

The first Smart Impulse system was installed at the Littlehampton site in February 2021. This initial installation helped us provide The Body Shop with detail of where their electrical supplies were being used, defined by specific categories of usage, and in turn were able to identify potential areas for savings to be made. After LED lighting was installed to replace old fluorescent lighting in the warehouse, SMART Impulse reports identified that this project achieved a 20% reduction. The reports also showed the automation systems used for product picking in the warehouse used large amounts of energy whilst in standby mode and savings could be made when the system was completely turned off. More recently, SMART Impulse has been installed within the new Body Shop London office on Tooley Street.

The Benefits

One significant benefit the technology provides is to the life-cycle of a building's services. If you can identify the services and/or other equipment that are operating when they don't have to, or you can identify where you can reduce their operating times, if managed correctly, their longevity should increase and maintenance costs decrease.

Benefits are also seen in an increased level of productivity from the our energy team by making aspects of their day to day role easier and more efficient.



- Average of 15% savings without works for ROI < 1 year.
- Compatible with all electrical configurations.
- Access to a visualisation platform for intuitive navigation and observation of your consumption data per end-use, from a big picture monthly view to a detailed consumption profile, every ten minutes.
- Automatic email reports and alerts provide snapshot summaries that demonstrate how your building consumes energy, identifies drift and monitors execution of your action plans.
- Guaranteed hardware, guaranteed data over time
- Possibility of one-click exporting in excel format directly from the platform.

Emmanuel Chautemps, Executive Director at Bouygues Energies and Services, an Equans company, said:

“SMART impulse provides a unique and detailed insight into a building’s energy consumption. At The Body Shop, we used it before undertaking a major LED lighting replacement in their main distribution centre, to demonstrate the energy saved. This now forms part of our strategic reviews to reduce the carbon footprint of the Body Shop. This is a great tool to generate measurable value through project works and energy interventions. Furthermore, SMART Impulse was funded through the savings we generated from the gain share mechanism in place with The Body Shop.”

Key Facts.

- **Installed at 26 uk sites to date**
- **Avg of 15% energy savings without works for roi < 1 year**
- **Installed at 12 sites this year**

Why we chose Smart Impluse

SMART Impulse can provide a huge volume of data about energy usage in buildings. The unique function the Smart Impulse Analyzer provides is analysis and tools that spot where improvements could be made, and money saved. Bouygues Energies & Services, an Equans company, combined with Smart Impulse offers building owners real time alarm reporting to help identify sudden spikes in demand and incidences of abnormal energy usage. Custom dashboards make it easy to compare consumption levels and access key metrics. A great deal of energy efficiency systems fail because building managers lack the time and technology to measure and monitor their energy consumption or use. Smart Impulse identifies inefficient energy use easily by identifying, measuring and monitoring lighting, heating, ventilation, air conditioning systems, etc. These benefit both the our energy team and our clients.

Our Engagements

- **Commitment Performance Energy :**

Bouygues Energies & Services, an Equans company, guarantees by contract a reduction in the electricity consumption of your lighting network.

- **Commitment Proximity :**

With more than 200 locations in France, we are committed to the availability of its supervision and intervention teams.

- **Commitment Transparency :**

We transparently display energy consumption measures for installations and equipment piloted.

