

CASESTUDY

# University of Salford | UK

## Campus Energy Monitoring and Energy Awareness Campaign



The University of Salford is a British public research university located in Salford, Greater Manchester, with approximately 20,000 registered students. The main campus is about 1.5 miles (2.4 km) west of Manchester city centre, and is situated in 60 acres (240,000 m<sup>2</sup>) of parkland on the banks of the River Irwell.

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01 University of Salford

The University of Salford's Carbon Management Plan has set a target of a 43% reduction on CO<sup>2</sup> emissions by September 2020 from its 2005/06 baseline, with an interim target of a 30% reduction by September 2015.

A reduction in energy consumption levels will see a reduction in the £1.9 million energy bills. It is estimated that lighting accounts for around 25% of electricity use and 30% of the university's Carbon Footprint.

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“By displaying the Green Screens across the campus we have successfully driven awareness of our energy usage amongst the student body and faculty staff and have experienced a 5% energy reduction.”

Matteo Littera, Energy Manager,  
University Of Salford

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### Sustainability

Salford have an active Sustainability team who are implementing a Sustainability Strategy for 2020 which includes the reduction in total measured carbon emissions of 43% by September 2020. A reduction of 38% was achieved by end of 2014/15.

### Project Summary

- Applications: Active Energy Manager & Green Screen
- Type of Building: Campus | 12 Buildings
- Meters connected: 170 + meters
- Use: Energy Management  
Energy Awareness  
Project Tracking

### Active Energy Solution

As part of the University's commitment to reducing its carbon emission by 30% on its 2006 baseline, and in line with its projects highlighted in its Carbon Management Plan (CMP), the University of Salford has embarked on a program to give its staff and students the tools they require to help achieve this ambitious target.

To this effect, Active Energy Green Screen public energy displays have been installed in the campus' main buildings. These provide live energy consumption data, energy saving tips and energy consumption trends over time, resulting in an average of 5% energy reduction to date.

For a campus the size of the University of Salford, that would equate to annual savings of 1,000tCO<sub>2</sub> and £160,000.

### Cylon Integration:

The ABB Cylon® Building Management System is linked over a wide area network connecting the 46 buildings that are on the site which means that facilities can be centrally managed. The latest generation of ABB Cylon® Control products were installed on campus included the UnitronUC32 system which runs on a high performance Ethernet network.

Within the University of Salford energy management has taken a high priority. Energy management has been inextricably linked to providing a sustainable environmental policy and to compliance with environmental legislation.

Using the leading edge Active Energy solution the University has been able to monitor areas such as electricity and gas usage, removing environmental inefficiencies.

### Solution Benefits

#### Flexibility:

The Active Energy Manager solution provides flexibility to allow for additional meter connections as required and requires no additional hardware to be installed. As connectivity is conducted remotely, connections can be made faster and no site visits are required.

#### Central Monitoring:

The Active Energy Manager solution allows the onsite facilities team to centrally monitor the energy consumed by individual buildings throughout the campus via the user friendly and intuitive interface.

#### Project Tracking:

The Active Energy Manager solution can also be used to track the performance of energy saving measures across the university, ensuring that the return on investment can be accurately determined for the various energy reduction technologies deployed.

#### Energy Display:

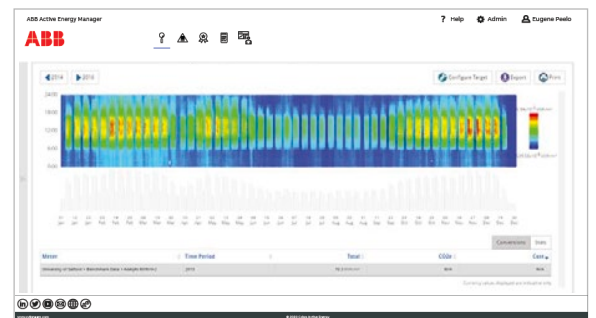
The Green Screen is displayed in public spaces to encourage positive behavioural change in energy management amongst occupants and visitors to a building and can produce additional savings in energy consumption of up to 10%.

### Time Period Comparison | June 2015 v June 2016



The time period comparison shows a drop in the electrical energy consumption of 1% from 2015 to 2016 which is due to more efficient operation of electrical usage across the Adelphi School.

### Spectral Analysis View | Annual 2015



This is the profile of the building for the whole year showing plant and equipment running 24/7 during some of the winter months and more efficient operation during the summer period as you would expect on a university campus.

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