



EFFICIENTAIR HIGH - PROBLEM SOLVING AT BRISTOL UNIVERSITY

With over 5000 staff, 12,000 students and 380 buildings, the University of Bristol accepts that its operations have a significant local, national and global environmental impact. One of the more recent actions taken by the University's Energy and Environmental Management Unit to reduce this impact has been to engage leading specialist consultancy Efficient Air to identify savings on 7 air handling units within 5 of the larger faculty buildings.

The University spends £4.2 million on energy and water per annum, which releases over 39,000 tonnes of carbon dioxide into the atmosphere. By taking remedial action it has been able to stem the annual rise in consumption from up to 16 per cent to only 2 per cent for electricity, despite an increase in buildings.

It has now replaced the 7 old style forward curved and backward curved centrifugal supply fans from the buildings. All of the existing fan arrangements were replaced with high efficiency double inlet aerofoil bladed fans. Savings of between 20 per cent and 50 per cent are being achieved.

The work gained an unanticipated spin-off in the Bio-Sciences building, when it was discovered during the survey that the existing AHU was attracting debris from grass strimming that had significantly reduced the airflow and impaired the performance. With the new equipment in place, this problem was overcome, resulting in higher performance and whilst still delivering a 51% energy saving.