

Project Description: University of Technology Sydney (UTS), Sydney Australia



TES designed and then implemented the upgrade of the facilities with the latest technologies, including the implementation of over 12,000 energy efficiency lighting fixtures, and upgrading the HVAC system. This included the installation of two new, high efficiency chillers into space constrained plantroom locations, as well as 20 high efficiency pumps and 30 Variable Speed Drives.

Solar Window Tinting was also installed to reduce heat transfer into lecture theatres, tutorial spaces and offices.

Due to the age of this facility, a significant amount of detail regarding electricity consumption and equipment details was not readily available. This required TES to build up its own asset management records of UTS equipment so we could develop an accurate Energy Efficiency solution. As a result we created an accurate asset register for UTS of over 2,400 items of equipment.

In addition, as part of the campus wide re-tuning of the HVAC system, TES upgraded the BMS at both the “front” end with new digital visual representations of how the system is performing, and at the “back” end, where over 1,000 set points were physically checked, replaced and re-calibrated.

This total system re-tuning process has ensured that the upgraded HVAC Systems are now optimised to achieve both significant energy savings as well as providing the required comfort levels for the staff and students of the university.

The AUD 5.6 Million project has now been fully commissioned, and forecast energy savings are being achieved.

The UTS Project is an energy efficiency upgrade of the two main campuses (consisting of numerous buildings and existing various technologies) of the University of Technology Sydney (UTS), the Ultimo high rise tower building in the CBD, and the metropolitan Kuring-gai campus.

TES was selected via a competitive tendering process to undertake a campus wide energy efficiency upgrade and an integrated building re-tuning process of major mechanical plant.

TES developed a holistic engineering approach, to address the multiple building services technologies of Lighting, Heating Ventilation & Air Conditioning (HVAC) and the Building Management System (BMS).

