

Concurrent Session F
Tuesday 13 September 2016
11:30am – 12:20pm



Session 1
Delivering Results in Utility Management
Iona Beaully, Dennis Frost
University of the Sunshine Coast

Iona Beaully has worked in University estates, facilities and asset management departments, in both Australia and the UK, since 2000. Her areas of professional interest include: strategic space and asset management; campus master planning; flexible workplace design; and new initiatives in teaching and learning space design. Iona holds the position of Director, Asset Management Services at the University of the Sunshine Coast and is a Co-opted Director of TEFMA.

The management of utilities (energy and water) has recently become extremely complex. This is especially true in relation to energy management, as the deregulated market is complex and subject to frequent change. It is also critical to manage the demand for electricity effectively. Inadequate management could prove to be very expensive.

Since 2012, the University of the Sunshine Coast has adopted a proactive and innovative approach to the management of utilities. Financial initiatives have been introduced to manage the University's electricity account within the context of the deregulated energy market. A range of engineering initiatives have also been introduced to reduce the use of electricity and water. These initiatives have collectively delivered a saving of \$1,300,000 since 2012 and have contributed to the sustainable management of resources.

The University's footprint has grown by 20.1% since 2012. The campus buildings have also been used more intensively as the hours of use have increased. Consequently, electricity usage has increased by 25.8% since 2012. However, the University's expenditure on electricity has reduced by 10.6% in the same period. This has been achieved through a combination of financial and engineering initiatives.

To manage electricity use and costs effectively, it is essential to have a thorough understanding of the electricity market, the University's demand profile and individual building performance - as well as an understanding of how technological developments can be harnessed to reduce electricity use. Through the implementation of innovative engineering initiatives, the electricity use for some buildings has decreased by 58%. However, whilst the engineering initiatives implemented have resulted in considerable savings, they have also increased complexity of the University's building systems (such as the air-conditioning and BMS systems).

Effective management of utilities requires comprehensive understanding of both the financial and engineering aspects of utilities management. This paper gives an overview of the significant issues in this area, outlining the cost-saving initiatives that have been implemented at USC in recent years and suggesting opportunities for future initiatives. It shows how the innovative and proactive management of utilities can lead to considerable savings in electricity and water use and substantial savings in expenditure – as well as making a significant contribution to the University's sustainability goals.

