

Case Study for Burner Management Units at U.S. Air Force 100th Civil Engineer Squadron RAF Mildenhall



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Due to the size and energy consumption at the U.S. Air Force Base at RAF Mildenhall, in Suffolk, England, the site energy manager needed to reduce energy consumption. Particularly with the usage of expensive fuel oil as a source of energy at the base.



This technology is designed to alter the firing pattern of the boiler to improve their energy efficiency, without impairing the performance of the boilers.

The BMU's used are the only BMU's in the UK which are certified by the Building Research Establishment (BRE).

The BRE conclusion after testing the units over a number of months, the BMU demonstrated savings on a test rig to in excess of 16% of natural gas consumption at low loads and high economy savings factors.

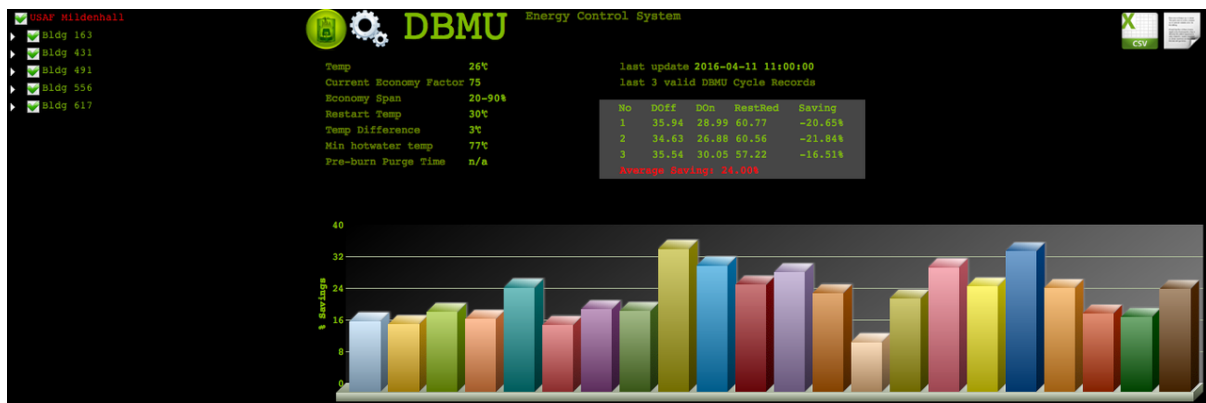
The actual savings are dependent on the nature of the load, the size of the system, heat emitters and boiler in relation to the load, the type of system that the boiler is serving and the type of boiler the BMU is fitted.

An impressive feature of the BMU's is its ability to monitor it's own performance. This information can then be accessed on line using a PC, laptop, tablet or smart phone.

RAF Mildenhall

Due to the location the majority of the boilers on site at RAF Mildenhall are off the natural gas network. This has meant that they are run on fuel oil.

The site has in excess of 50 commercial boilers. Burner Management Units were installed to these and the results were immediately evident.



As you can see, the average savings the units have made in the since their installation is an excellent 24%.

With savings as large as these the return on investment is well under 6 months.

It is estimated that the installation of Burner Management Units will save the base \$700,000 per annum with a saving of 25 Billion Btu.

Due to the large savings made by the units, the base subsequently won a prestigious FEMP (Federal Energy & Water Management) Award.