



**Need to reduce
your heating and
energy costs?**

**You shouldn't
have to hold your
breath!**

**Using Fuelstretcher saved 7
Cornish Leisure Centres up to **£60,000**
on energy consumption per annum.**

Read on to see how Fuelstretcher could
save your Leisure Centre's energy consumption...

FUELSTRETCHER

Leisure centres reduce operating costs and energy consumption through Fuelstretcher

Fuelstretcher is a unique retro-fit technology which determines heating demand from buildings each day and calculates the optimum boiler temperature set point to meet the heating demand and customer comfort without wasting excessive heat energy. Energy savings through Fuelstretcher on average are 15% and savings are also seen when used with the latest building management systems and boilers, in particular with condensing boilers where lower set points enhance efficiency.

Following a trial installation of a Fuelstretcher controller at the Dragon Leisure Centre, Bodmin, in July 2010, a further 6 sites were fitted with the controller during August and September 2010.

Savings at each site range from 11% to 27% resulting in a projected annual energy spend reduction of almost £60,000 (19% of total spend) equivalent to a reduction in CO₂ emissions of over 400 tonnes per year.*

*The annual savings stated are projections based on 3-5 months of consumption monitoring extrapolated to 12 months.

Learn, predict & set - how does Fuelstretcher work?

Fuelstretcher's principle operation is to determine the heating demand from the building each day and to calculate the optimum boiler flow temperature set point to meet that demand without reducing comfort. This daily adjustment of flow temperature set points means that the water delivered to the secondary heating circuits is in the range 60°C to 70°C although both higher and lower temperatures are possible under certain circumstances (minimum is 55°C and maximum is 80°C). This adjustment occurs automatically throughout the year and adapts to seasonal variations in building heat demand.

“ The Fuelstretcher units have been installed at a number of leisure centres on an invest to save basis, the reductions in energy consumption / carbon emissions have yielded better than anticipated results, with an average saving of 19%.

**Martyn Perrow, Energy Manager,
Cornwall County Council**

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Fuelstretcher also has a remote GSM monitoring system fitted so we can monitor and react to any changes within the boiler system or malfunction.

When Hot Water Services (HWS) are provided from the heating boilers an additional sensor monitors the output temperature of the calorifiers and boosts the flow temperature set points to ensure that the HWS temperatures periodically exceed 60°C every day to reduce the risk of Legionella issues.

This principle of operation was proved in both simulation and field trials by the Building Research Establishment (BRE) to be effective even in systems with efficient boilers

and a well programmed BMS since neither boilers nor other control systems address the issue of primary circuit temperature compensation. In fact, well designed and well maintained heating systems contribute significantly to energy efficiency. The remote monitoring capability of Fuelstretcher is therefore a valuable tool in making sure that the heating system and controls continue to operate within their design range.

Demonstrating the benefits of Fuelstretcher

There is no other product like Fuelstretcher on the market. No other manufacturer or supplier can provide you with an energy saving controller which is monitored and set every day and which produces ongoing savings of both energy cost and consumption.

A Fuelstretcher controller will guarantee to pay itself back through energy savings within 2 years. Your leisure centre could not only be reducing its energy consumption by 15% now, but will continue to do so in the long term.

To demonstrate the benefits of Fuelstretcher, take a look at how a Fuelstretcher controller reduced energy in seven leisure centres in Cornwall.

Dragon Leisure Centre (Bodmin)

Annual energy savings using Fuelstretcher **£14,000**

Splash Leisure Centre (Bude)

Annual energy savings using Fuelstretcher **£4,500**

Lux Park Leisure Centre (Liskeard)

Annual energy savings using Fuelstretcher **£6,700**

Newquay Sports and Community Centre (Newquay)

Annual energy savings using Fuelstretcher **£2,900**

Waterworld Fun Pool and 25m Pool (Newquay)

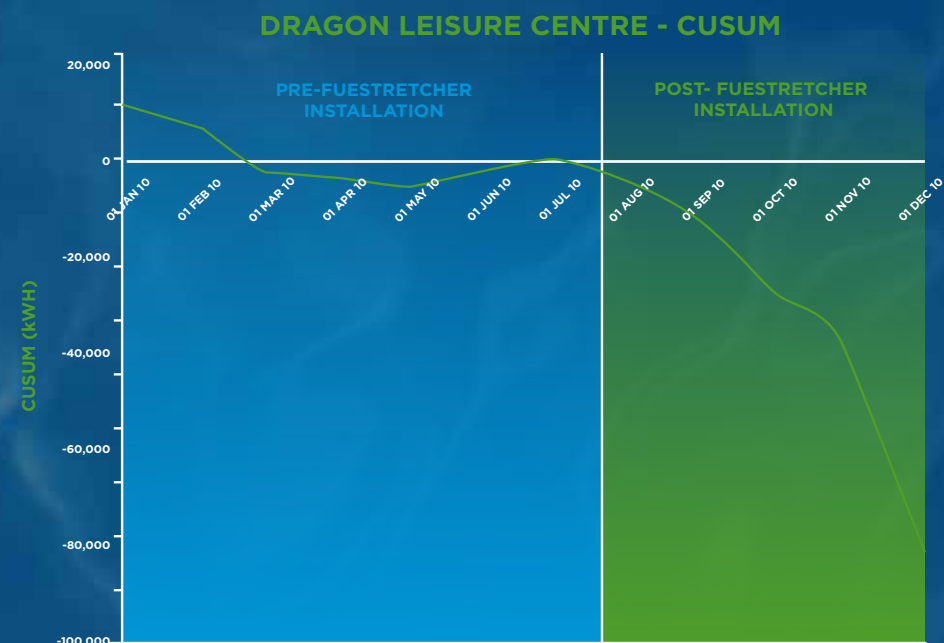
Annual energy savings using Fuelstretcher **£21,000**

Saltash Leisure Centre (Saltash)

Annual energy savings using Fuelstretcher **£2,700**

Wadebridge Leisure Centre (Wadebridge)

Annual energy savings using Fuelstretcher **£6,200**



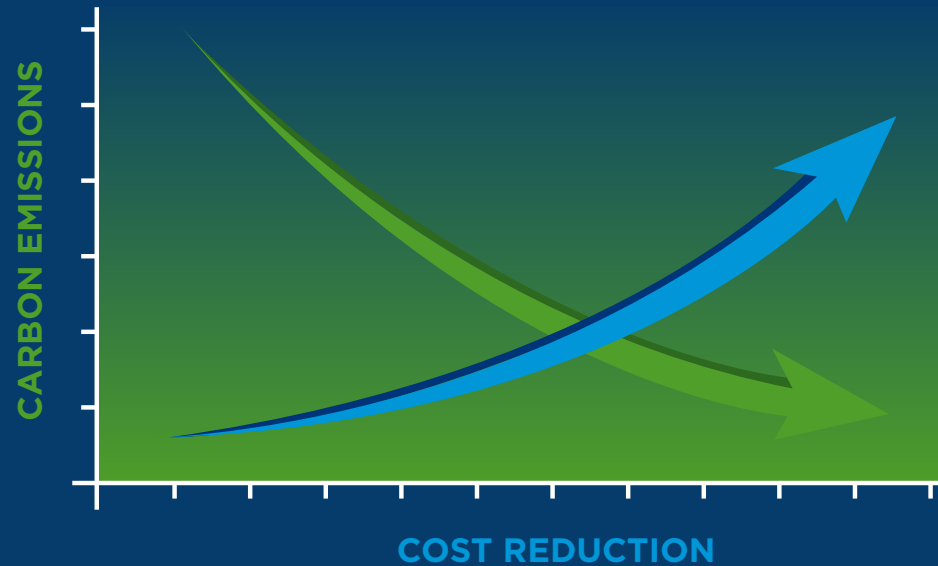
When assessing the savings achieved in any heating system it is essential to take into account both the outside air temperature and changes to the building or system over the periods being compared.

The accepted industry practice to take into account weather related changes is the use of Degree Days and the Carbon Trust recommend the CUSUM method for long-term monitoring as described in their pamphlet CTG004. In this method, the historical consumption data is used to develop a Building Performance Line which is then used to predict the consumption with no changes. The actual consumption after a change is then compared with the predicted consumption and the difference is either a saving or an increase. When plotted on the CUSUM graph, a downward trend of the graph represents a saving.

Reducing your carbon footprint

The Carbon Trust are a not-for-profit company set up by the Government to provide specialist support in helping businesses and the public sector boost business returns by cutting carbon emissions, saving energy and commercialising low carbon technologies.

The introduction of the 2008 Climate Change Act, has put carbon reduction high on everyone's agenda. In a first of its kind Britain has entered into a legally binding 'carbon budget', aiming by 2050 to have reduced the UK's emissions by 80%. However in today's economic climate organisations struggle to consider the possibility of pursuing new technology to achieve such reduction. The proven return on investment and guaranteed cost savings demonstrated by Fuelstretcher, offers a solution to those concerns. As a member of the Carbon Trust, Fuelstretcher are happy to work with and support organisations who wish to use any of the Carbon Trust loan schemes. To find out more about the financial support available through the Carbon Trust visit their website www.carbontrust.co.uk



To find out more

With cutting emissions and reducing costs going hand-in-hand, Fuelstretcher are able to provide the solution that will allow you to accomplish both.

This case study of our work with Cornish Leisure Centres is only a small taster of the great work we have been doing since completing the initial technology in 2006. If you would like to learn more about the work we have done for our other clients and what they have to say about us please visit our website www.fuelstretcher.co.uk or call a member of our sales team on **01752 764 423**.

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