

Executive Summary

- **30%** energy saving validated in-house
- **Certified CarbonNeutral[®] company**
- **2 Floors of Offices with typical office operating hours**
- **Oil fired Grant Multipass Oil Boiler**
- **No changes to the building infrastructure or heating system**
- **8.2 tonnes CO₂ saved each year**
- **3 Year Return on Investment**



GROUP

Commercial Group is the largest independently owned business service group in the UK, comprising four divisions; Office Supplies, IT, Interiors and Print. Commercial Group was the first company in its sector to be CarbonNeutral[®], which they achieved in 2006.

Consequently, Commercial have become leaders in their field and continue to apply and influence best practice in industry, demonstrating that a business can be more successful and profitable when it is more socially responsible and takes sustainability and energy efficiency seriously. The company ethos is to be on a constant look out for innovations that help them retain and better their carbon neutral goal. To that end, Commercial is open to new technologies and techniques, whether it is industry specific or more general. This includes a warehouse roof covered by solar panels to power their data centre, early adoption of virtualisation technologies that reduces IT energy consumption, and deployment of a fleet of hydrogen fuelled vans to make their deliveries.

Simon Graham, Commercial's Environmental Strategist, heard about Hydromx from one of their partner customers, the green energy company Ecotricity, which was founded by Dale Vince in 1996. Dale also owns the Forest Green Rovers football club in Stroud, which is the most sustainable football club in the UK. Their New Lawn Stadium was the first commercial building in the UK to install Hydromx and has already enjoyed the benefits of 30% energy and carbon savings.



Commercial installed Hydromx at its head quarter offices in Cheltenham in July 2014. The building was not originally designed to have a large amount of office space and is now a complex hybrid of warehousing and offices. Following continued annual business growth, the single Grant

Multipass Oil Boiler that heats the offices has started to struggle to meet demand. Heat is distributed through typical dual panel steel radiators each with a thermostatic radiator valve.

Commercial Group – Space Heating

As with most Hydromx installations, the system was flushed, drained and filled with the Hydromx solution within a day.

As experts in energy efficiency and carbon reduction, Commercial used their own internal Sustainability Executive to calculate the savings using Hydromx. Oil consumption for the previous 2 heating seasons, before Hydromx was installed, was used as a baseline to compare with the consumption when using Hydromx in the heating system. Degree Days analysis was used to normalise consumption and adjust for external temperatures using publically available degree day data for the local area.



Oil consumption dropped significantly after Hydromx was installed. In 2013/14 Commercial consumed 4.72 Litres of Oil for each Degree Centigrade of Heating (HDD). Using the same normalisation technique, the rate of oil consumption with Hydromx in the heating system, was just 3.26 litres for each HDD.

Commercial Group measured a staggering reduction of **30%** in oil consumption using Hydromx.



Simon Graham, Environmental Strategist, says:

"We have 10 Commitments that are the foundation upon which our sustainability programme is built. One of these is to "Reduce Carbon Significantly". We were confident that we would save carbon with Hydromx because of the results that Ecotricity have seen at Forest Green Rovers. We are delighted that we too are saving 30%. That is over 8 tonnes of carbon every year, or as Forest Green put it, the carbon absorbed by over 130 trees, enough to cover almost 2 football pitches. This will deepen our ability to stay CarbonNeutral and we will be spreading the word through our annual CSR Day, seminars, reviews, consultancy, special projects and other activities where help to our customers reduce their environmental footprints to help create a successful low carbon economy."