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‘A major step towards cutting their carbon footprint’

Solar Control Window Film: A Big Step Towards a Low-Carbon Environment
by Peter Reece,
managing director of
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The recently concluded Copenhagen Climate Change Summit has once again raised awareness of the need to reach a global agreement around climate change and to reduce its effect.

What is clear is that cleaner, greener technologies will be high on the agenda throughout 2010 as politicians look at new ways to reduce their greenhouse emissions while using their natural resources more efficiently in the future.

This will be a key incentive for all businesses looking to lower their energy costs and reduce their carbon footprint, but for many UK firms the need is even greater. Since March, the Carbon Reduction Commitment has involved around 20,000 public and private sector organisations in the UK, and for some this means paying for a revenue recycling scheme and even facing financial penalties for poor performance. As the first country to be implementing such laws, the need to explore alternative energy-saving technologies in the UK could not be greater.

Cover your windows, lower your costs

While the issues discussed at the Copenhagen summit might seem to be aimed at future generations, UK firms and households can take steps now to reduce their carbon footprint and, as a result, directly reduce their long-term energy bills. Obvious examples include energy-saving light bulbs and energy-efficient appliances which provide tangible benefits.

However, a less well-known technology that has been around for more than three decades could help the UK take a major step towards cutting their carbon footprint. This technology is solar control window film that, when applied to windows, severely limits the impact of solar heat gain on, and the likely associated costs of, cooling the office, building or house.

With proven heat-rejection properties, solar control window film helps buildings consume less energy by keeping interior temperatures more controllable and stable. By rejecting up to 79 per cent of solar energy, the room becomes cooler and more comfortable. This lowers the need for air conditioning, reducing extreme



Window without window film shows increased glare



Window film covering reduces glare



peaks in usage and allowing cooling systems to operate more efficiently and inexpensively.

Saving energy and going green remains high on every UK corporate agenda. However, with UK meteorologists predicting annual temperature increases over the next few decades, the issue of cooling office buildings without increasing air conditioning is becoming an even greater challenge.

For many UK firms the need to conserve energy, reduce a company's carbon footprint and conform to stricter environmental standards is of the highest importance. At the same time, the cost of energy continues to rise – and will continue to do so as supplies dwindle.

I believe that solar control window film could be one of the easiest, quickest and most cost-effective ways for the majority of UK firms to address this problem.

This position is supported by Lawrence Berkeley National Laboratory (LBNL), one of the world's top energy research centres, in Berkeley, California, which reported that, among others, "the most cost-effective options in terms of payback period are adding window films to existing windows."

With industry leading products recognised by organisations such as the Clinton Climate Initiative, solar control window film can cut air conditioning bills by up to 30 per cent. Aside from energy-related savings, the product also offers excellent value for money. LBNL recently found that window film tops the ROI list when compared to window replacements, blinds, awnings, shade trees and reflective roofs.

Lower your costs, or pay the penalty

To compound the green issues facing UK businesses, impending legislation will soon require companies to disclose full details on their firm's carbon footprint. Due to become law in March, The Carbon Reduction Commitment is a tool of the 2008 Climate Change Act, and will create the first legally binding long-term framework to cut carbon emissions, anywhere in the world.

Up to 5,000 organisations, including government departments, hotel chains, local authorities and office-based corporations, will have to comply with a carbon trading scheme, which involves buying CO₂ allowances to cover energy usage. Those companies who control emissions can then sell their remaining allowances on, while those who fail to stay within their limits will have to buy extra allowances or face a fine. With company league tables outlining the best and worst performers, and

penalties or bonuses given out according to league position, businesses should be looking for energy-saving technologies that can not only save them money, but improve their public image as well.

Peter Barnes, sales director of Durable Ltd, a window film dealer based in Reading, feels that many companies are as yet failing to take action to meet the demands that will soon be imposed upon them. "With the Carbon Reduction Commitment almost upon us we are concerned that there appears to be little recognition of the impending law and even less action to comply with its requirements", he said. "We can produce dramatic energy savings at a relatively low capital cost with normally little or no disruption to building occupiers. The purchase process could not be simpler through a pre tendered Government Contract (OGCbuying Solutions) and anyone serious about energy reduction can take decisive action today."

Window of opportunity for reduced energy bills

One primary area businesses should be targeting is their air conditioning spend, which presently accounts for 30 per cent of a company's annual cooling load. One of the biggest wastes of energy is letting solar gain cost you money, and for any business that uses extensive cooling, window film is a great way to tackle the problem. Some window film manufacturers offer energy-efficiency audit tools which measure the impact of solar heat gain on buildings, then predict the impact of retro-fitting solar control window film to provide an accurate assessment of the resulting reduction in the building's annual cooling costs. Clearly, assessing options such as these, and evaluating them in terms of ROI, could prove to be a very smart move.

Window film is not the only solution towards a greener home or office. Simple good housekeeping remains the best way to reduce emissions and subsequently reduce bills, and even if every single energy-saving strategy is employed, it is extremely difficult to be totally carbon neutral. But by pursuing simple and cost-effective technologies such as window film, homes and businesses can take big strides towards eradicating the majority of their energy excess. Window film can reduce your cooling load by 30 per cent which is equivalent to roughly 5 per cent of the energy bill, a number that could represent thousands of pounds in penalties or CO₂ allowances to many UK firms. With such significant savings on offer, it is an option that, into 2010, many would do well to investigate.

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