



# EFCTC NEWSLETTER

## An update on fluorocarbons and sulfur hexafluoride

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### **F-GASES EMISSIONS WELL BELOW 2 PER CENT OF ALL GHG IN 2007 CONFIRMED BY UNFCCC NATIONAL GHG INVENTORY DATA**

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Emissions of F-gases ([HFCs](#), [PFCs](#) and [SF<sub>6</sub>](#)) represented in 2007 1.7 per cent, that is less than 2 per cent of the total Greenhouse Gases (GHG) emissions in the EU as well as in the total of the [Annex I](#) signatories of the [Kyoto Protocol](#).

These figures were released by the Secretariat of the UN Framework Convention on Climate Change ([UNFCCC](#)) in a [note](#) on National Greenhouse Gas (GHG) Inventory Data for the Period 1990-2007.

Between 1990 and 2007, emissions of F-gases together increased by 14.8 per cent, essentially through the replacement of [ODS](#) (CFCs and HCFCs) by HFCs.

Between 2006 and 2007, emissions of all GHGs increased: CO<sub>2</sub> emissions by 0.9 per cent, CH<sub>4</sub> emissions by 0.3 per cent, N<sub>2</sub>O emissions by 0.5 per cent and emissions of F-gases by 3.9 per cent.

Between 1990 and 2007, all Annex I Parties decreased their total aggregate GHG emissions by 3.9 per cent, but developed countries increased their emissions by 1 per cent from 2006 to 2007, with an overall 3 per cent growth during 2000-2007.

Detailed 2007 GHG emissions by region or country have also been released by [UNFCCC](#).

### **POLISH SUPERMAKET CHAIN CONFIRMS ENERGY EFFICIENCY PENALTY FROM ALTERNATIVE REFRIGERANTS**

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At an [EPEE event](#) organized in Poznan (Poland) with Polish associations, a major supermarket chain revealed that, after a serious investigation on the potential of alternative (so-called "natural") refrigerants, they had come to the conclusion that those would entail a 10-20 per cent [energy efficiency](#) penalty.

There were also voices throughout the conference raising additional concerns about the [safety aspects](#) of alternative refrigerants.

Participants also repeatedly stressed the need to find a balance between the environmental footprint of a technology and its cost-aspects as Poland is currently going through a serious economic recession. Given that Polish energy use in household is mostly coal-based, increasing [energy efficiency](#) is perceived as the only credible method to achieve CO<sub>2</sub> reductions quickly and efficiently.



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### **HFC-BLOWN POLYSTYRENE FOAM FOR A BRITISH COLD STORAGE CENTRE**

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HFC-blown extruded polystyrene [foam](#) (XPS) has been used as insulation material in the large storage and distribution facility built for a leading British food retailer.



The HFC blowing agent gives the foam an [optimal low thermal conductivity](#), together with exceptional moisture resistance and high compressive strength; characteristics that it retains over the long term, even in extreme conditions.

Food retailers realize the critical need for energy efficient storage and distribution facilities. A typical distribution centre covers a ground area of 30,000 m<sup>2</sup> and handles some 50 million units a year, working around the clock, twenty-four hours a day. Frozen foods in particular make special demands on the distribution process.

The cold storage recently built for a British food retailer comprises a 210,000m<sup>3</sup> high bay facility. At the heart of any cold-store performance is the insulation material: XPS foam panels are used to insulate the roof and the floor area of both around 22,000 m<sup>2</sup>.

Source: Product manufacturer

### **HFC AIR CONDITIONERS FOR TWO 2010 WORLD CUP FOOTBALL STADIONS**

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Water-cooled HFC [air conditioners](#) have been delivered to Green Point Stadium (Cape Town), currently under construction and to the Nelson Mandela Bay Stadium (Port Elizabeth). Both stadiums will play host to the 2010 FIFA World Cup™ in South Africa in June 2010.

The Green Point Stadium is the first intelligent stadium in South Africa and, as the name suggests, was built to be environmentally conscious. All electrical equipment



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such as facility lighting, air conditioners and elevators are controlled from a central control room for maximum [energy efficiency](#).

Usually, a stadium's air conditioning is achieved by large-sized air conditioners installed in a machine room. However, because the stadium is a multi-purpose facility where the layout can change from event to event, the choice that was made, from the viewpoint of energy conservation was to control the air conditioning of each area individually.

Water-cooled HFC air conditioners are energy efficient and can substantially save the amount of power consumption at stadiums.

The Green Point Stadium in Cape Town, Western Cape, South Africa has a seating capacity of 68,000 people. 63 outdoor and 113 indoor air conditioners are installed.



The Nelson Mandela Bay Stadium in Port Elizabeth, Eastern Cape, South Africa, has a seating capacity of 48,000 people. 107 outdoor and 238 indoor air conditioners are installed.



Source: Manufacturer Information

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**[Analysis of Reported European Emissions Shows Improvement in Containment of Hydrofluorocarbons](#)**