Environmental responsibility

Our response to climate change

Climate change is one of the most critical issues facing our world. At Birmingham we are contributing to the battle against climate change in a number of ways. Through collaboration with the Carbon Trust, we plan to reduce the University's carbon dioxide emissions by 10% over the next five years. An increasing amount of our research focuses on the impact of climate change, solutions, and how we might adapt to it. Our teaching is focused on training the next generation of climate change scientists. Through this – together with campus initiatives such as our student 'switch off' campaign – we are changing our individual and institutional behaviour to become a more climate-conscious community.

Green fuel cell cars, boats and houses

A zero-emission, environmentally friendly car, powered by hydrogen, arrived on campus in November 2007 as part of a project to investigate how hydrogen-powered cars might replace diesel and petrol vehicles. Today, the hydrogen car is part of a fleet of five cars, supported by an associated filling station, the first to be opened in the UK.

Additionally, engineers at the University have developed the world's first hydrogen-hybrid canal barge. The zero-emission boat is fully operational along the canal that runs through our Edgbaston campus, and is driven by a combination of magnet and fuel-cell technologies. The longer-term aim of the project is to develop a viable alternative energy source for inland waterways craft that is clean and ecologically friendly.

Our research team has also unveiled a hydrogen fuel cell powered house. The £2-million project is exploring how the fuel cell unit powers the house's electricity, water and central heating, and whether it is a viable alternative to fossil fuels.

Changing behaviours - Student Switch-off Campaign

University of Birmingham students have been switching-off to play their part too. The 'Student Switch-off Campaign' in student villages encourages students to think about their energy consumption. Our students enrol to become 'Eco-Power Rangers' and are awarded prizes that include eco gadgets. The results speak for themselves: the efforts of 671 Eco-Power Rangers have saved around 120 tonnes of carbon dioxide in the last year, alone.

Green machines

Since April 2007, we have transported recyclables around the campus using our Green Machine. The electric vehicle is charged overnight by plugging into a standard 13 amp power socket and takes advantage of our combined heat and power station, which produces both electricity and heat from natural gas. The vehicle has a range of over 40 miles and there are no emissions during its use.

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