

HSBC and carbon neutrality

Cover image: Solar panels on the roof of the First Direct office in Leeds, UK, demonstrate HSBC's commitment to generate our own renewable electricity.

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Responding to climate change means effective carbon management

“The scientific evidence is now overwhelming. Climate change presents very serious global risks, and it demands an urgent global response.”

The Stern Review on the Economics of Climate Change, HM Treasury, UK Government, 2007

“Over the next five years, HSBC will make responding to climate change central to our business operations and at the heart of the way we work with our clients across the world.”

Stephen Green, Group Chairman, HSBC Holdings plc, May 2007

Given the impact it will have on modern life, climate change is a major issue for HSBC’s customers, employees and shareholders, together with every other organisation on the planet. We believe that increasing levels of carbon dioxide caused by human activity contributes to climate change.

In 2005, HSBC was the first major bank – and FTSE 100 company – to become carbon neutral.

So, what does being carbon neutral really mean?

Carbon dioxide is the most significant greenhouse gas contributing to climate change, and being carbon neutral means our worldwide operations contribute zero net carbon dioxide into the atmosphere.

How does HSBC achieve carbon neutrality?

Being carbon neutral for HSBC is, first and foremost, about reducing our carbon footprint. There are four key steps we follow to be carbon neutral:

1. Measure our carbon footprint
2. Reduce energy consumption
3. Buy green electricity
4. Offset our remaining CO₂ emissions

We call these four steps our Carbon Management Plan.

Why bother?

HSBC believes that climate change is the single biggest environmental, social and economic challenge we face this century. Being carbon neutral reflects our desire to run a more sustainable business and to reduce our carbon footprint.

A key driver behind our decision to be carbon neutral was our desire to understand better the implications and impacts that an increasingly carbon-constrained economy will have both for us and our clients. We expect the cost of carbon to increase as a result of regulation and carbon taxes; and we believe that financial institutions should and will play an important role in the shift to a low-carbon economy.

A catalyst for change

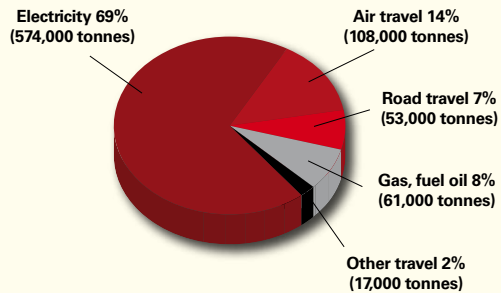
Carbon neutrality also acts as a catalyst for organisational efficiency. Since HSBC incurs the additional costs that arise from buying carbon offsets, if our carbon emissions increase, so does the cost to the business.

However, being carbon neutral is not only about cost; it should also be viewed as an investment. Through the procurement of green electricity and credible offsets, HSBC is helping to stimulate the global supply of, and investment in, low-carbon technologies. As the world’s first carbon neutral bank, we recognise the benefits of such investments to our clients, stakeholders and customers.

HSBC's Carbon Management Plan

HSBC's Carbon Management Plan has four steps:

Step 1



This chart shows the sources of HSBC's CO₂ emissions in 2006.

Measuring our carbon footprint

HSBC's operations produce carbon dioxide from the energy used to heat and cool our buildings and power our lighting and office equipment.

Almost all of HSBC's 315,000 employees work in branches, offices or data centres around the world where energy use and carbon dioxide production are measured and reported publicly through HSBC's environmental reporting system.

We also measure the distances travelled by employees for business purposes in order to estimate our carbon footprint from travel.

We have been recognised for our reporting practices through our ranking in the Carbon Disclosure Project's Climate Disclosure Leadership Index in 2006 and 2007.

Step 2

Reducing energy consumption

In 2005, we set three-year targets to reduce our energy consumption by 7% and our carbon dioxide emissions by 5%, and we have implemented a number of initiatives across the Group's operations to help achieve these targets.

HSBC has designed and built a prototype 'zero carbon' branch, incorporating new technologies to minimise the building's carbon footprint. Located in Greece, New York, the branch utilises solar panels, a ground-source heat pump, 'intelligent' lighting systems and rainwater recycling. We have also installed solar panels to generate electricity and solar thermal technology to generate hot water at a number of our buildings in the UK and France.

We are installing state-of-the-art video-conferencing technology in a number of offices to reduce the need for employee business travel, and a range of energy efficiency initiatives is being rolled out, including the implementation of software that automatically turns off computers and lighting at night. Energy efficiency is a particular priority for new HSBC buildings. Our Global Technology Centre in Pune, India, installed technologies that reduce carbon dioxide emissions by 700 tonnes per year.

In July 2007, HSBC committed to spend US\$90 million over the next five years to continue to reduce our carbon footprint. This Global Environmental Efficiency Programme will help the Group achieve its environmental reduction targets by trialling environmental innovation and sharing best practice through the installation of renewable energy technologies and other initiatives.



This HSBC branch in Greece, New York, has solar panels on its roof – an example of renewable energy technology trialled by HSBC.

Step 3



Rothes wind farm in Scotland was financed by HSBC. It is an example of green power and the type of projects HSBC supports under its Carbon Finance Strategy.

Buying green electricity

The vast majority of electricity produced around the world is generated from carbon-rich fossil fuels, including coal, oil and gas. 'Green electricity' and 'green power' are terms commonly used for electricity produced from clean or renewable energy resources that do not produce carbon dioxide – such as wind, solar and hydro-power.

HSBC buys green energy in many regions around the world. For instance, in 2006, HSBC bought clean energy equivalent to a third of its electricity consumption in the US through the purchase of Renewable Energy Credits, or 'green-tags'. This approach supports the generation of electricity from clean energy projects – primarily wind energy – located throughout the US.

Step 4

CO₂ offsetting

The fourth and final step we take is to offset voluntarily the remaining carbon dioxide produced by running our business.

To achieve zero net carbon dioxide emissions worldwide, we purchase emission reductions from projects around the world, called carbon offset projects. These projects avoid the emissions that would have otherwise occurred.

We buy carbon offsets that cover a range of technologies, all of which have a role to play in the shift to a low-carbon future. These technologies include renewable energy and energy efficiency measures.

To maintain our carbon neutrality in 2006 and 2007, we purchased emission reductions sourced from several projects in China and Thailand.

We buy verified emission reductions that meet accepted market standards of best practice.



Te Apiti wind farm near Manawatu Gorge on New Zealand's North Island, which formed part of HSBC's portfolio of carbon offsets for the last quarter of 2005.

Our carbon offset projects

Hydroelectric projects

Location: Sichuan province, China

The development of renewable energy resources, such as hydropower, is a key element in the transition to a low-carbon economy. Hydropower uses the energy of flowing water to drive a turbine and generate electricity and, because the water is not consumed but returned to the river, it represents a renewable energy source.

The production of electricity from hydropower projects in China avoids burning coal and reduces the amount of carbon dioxide emitted. Over 400,000 tonnes of carbon dioxide emissions have been offset by eight small hydrostations located throughout Sichuan province. All of these projects are run-of-river, which means they do not divert the flow of the river. HSBC's purchase of these carbon offsets helps to support the continuing operation of these facilities.

These carbon emission reductions have been independently verified and assured to the Voluntary Carbon Standard, a standard that certifies project credibility.



Energy efficiency in steel making

Location: Shangdong province, China

Energy efficiency – the use of more efficient technology and processes that require less energy to do the same thing – will also play a very important part in the shift towards a low-carbon economy.

This project in Shangdong province, China, involves the innovative use of waste gases that are by-products of the steel-making process to reduce power consumption at this facility.



To achieve the carbon dioxide emission reductions, electricity-generating equipment – specifically designed to utilise the waste gases – was installed. These gases are then captured and used in the new equipment to produce electricity. This allows the facility to reduce its consumption of power that would otherwise be supplied by coal-fired power plants.

The project has been approved and registered by the United Nations' Clean Development Mechanism Executive Board.

Waste water treatment in a starch manufacturing facility

Location: Nakhon Ratchasima, Thailand

As a result of the starch manufacturing process, methane – a greenhouse gas with a global warming potential 23 times higher than carbon dioxide – is produced. This project, at a starch manufacturing facility in Thailand, forcibly extracts methane from the organic waste water generated in the production of starch. The methane is then used to produce electricity, dispensing with the fossil fuels previously used during the manufacturing process.



The sustainable development benefits achieved by this project include reducing the amount of fossil fuels required to manufacture starch and improving the quality of the discharged water.

These emission reductions have been independently verified and assured to the Voluntary Carbon Standard.



Your questions answered

“It is our conclusion [that] HSBC’s reported carbon emissions have been balanced by VERs [verified emission reductions] contracted, meeting the needs of HSBC’s carbon neutral project.”

DNV Assurance Statement, HSBC Holdings plc Corporate Responsibility Report 2006

What are the challenges of being carbon neutral?

The decision to become carbon neutral was not a decision HSBC took lightly and the process has involved a steep learning curve. With no ‘how-to’ guide to follow at the time, we could have outsourced the entire operation to a third party, but we preferred to build the expertise in-house instead.

As a result, we are now in a position to share our experience on the important challenges associated with carbon management. We can also provide advice and potentially source offsets that are credible and genuinely additional for our corporate clients.

Is carbon offsetting the right thing to do?

Offsetting is the final step of HSBC’s four-step approach to tackling climate change. Whilst the credibility of offsetting has been questioned, we view it as an important tool to help tackle climate change and accelerate the deployment of clean technologies. HSBC prefers to reduce emissions and ensure permanent energy savings before offsetting emissions.

So how do we know that the carbon offsets we buy are doing any good?

To ensure the carbon offsets we buy are credible, they must:

- Genuinely reduce the amount of carbon dioxide emitted
- Be cost-effective
- Establish long-term sustainable development benefits

At HSBC, we only buy from credible carbon offset projects, which we evaluate and select on a strict set of criteria. We do not consider tree-planting or giving out energy-saving light bulbs a credible or permanent way to offset emissions.

What standards do HSBC adhere to and who makes sure that HSBC is carbon neutral?

As yet, we are not required to purchase certified emission reductions and so we offset our emissions voluntarily. We purchase verified emission reductions that meet accepted market standards of best practice.

We can all play our part. To find out more please visit:
www.hsbc.com/committochange

In 2006, we employed a third party, DNV (Det Norske Veritas), to verify our carbon neutral status and provide assurance statements to validate our approach.

What next?

HSBC has in place a long-term Carbon Management Plan, which incorporates our targets and the Global Environmental Efficiency Programme. We remain committed to ensuring HSBC’s net carbon dioxide emissions for its worldwide operations are zero and that we reduce the energy consumption of our employees over time.

Engaging HSBC’s global workforce of 315,000 employees is essential if we are to reduce significantly the Group’s carbon footprint. HSBC’s flagship project is the ‘HSBC Climate Partnership’, a five-year, US\$100 million programme that aims to inspire action by individuals, businesses and governments. Launched by HSBC in 2007, the partnership brings together The Climate Group, Earthwatch Institute, Smithsonian Tropical Research Institute and WWF and aims to:

- Create a 25,000-strong ‘green taskforce’ of employees to undertake field research and bring back valuable knowledge and experience to the HSBC workplace
- Help employees use their business skills and knowledge of climate change to build a more sustainable business

We are also helping clients respond to the challenges of a low-carbon economy. As part of our Carbon Finance Strategy, launched in 2006, we support clients who are developing clean technology and non-fossil fuel energy solutions that are technically and commercially viable.

We see an opportunity to serve new and existing clients better, advising them on the economic, financial and environmental benefits of better carbon management and translating this into business opportunities for HSBC and its clients.

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