

# BT's Sustainability Report 2007

Climate change



let's make a  
**better**  
world

# Climate change

Climate change is one of the biggest challenges of our age. Governments, businesses and citizens all need to play their part in tackling it.

We set our first carbon reduction target in 1992 and have already reduced our own UK carbon dioxide (CO<sub>2</sub>) emissions by 60% on 1996 levels. This year we developed a new strategy to further reduce our carbon footprint and involve our stakeholders in our efforts.

There is a strong business case behind our strategy. Our energy costs are going up due to rising fuel prices, taxation and market mechanisms in Europe and increased energy demand from our new network equipment.

Our technology will be part of the solution to climate change because it can help economies grow while emitting less carbon. For example, by enabling easier remote working and video-conferencing that reduce the need to travel.

We expect our operations to be affected by the changing climate. For example, increases in extreme weather conditions could potentially damage our network infrastructure. That is why climate change is one of our key [CSR risks](#).

## Climate change strategy

We plan to help tackle climate change through the innovative use of communications products. We aim to lower the carbon intensity of our networks and to help our customers reduce their footprint.

We launched our new climate change strategy in December 2006 which has four elements:

- Reducing our own footprint
- Influencing our customers
- Influencing our suppliers
- Engaging our employees

We use over 0.7% of the UK's entire electricity consumption so we can make a significant contribution to reducing carbon emissions. Our target is to reduce our footprint by 80% on 1996 levels by 2016. This will require concerted action across our business.

We seek to influence global efforts on climate change. In 2005 Ben Verwaayen, our CEO, and CEO's from 23 other multinational companies signed a statement calling for action by world leaders on climate change. In October 2005 our Chairman, Sir Christopher Bland, spoke at the launch of the 3rd Climate Disclosure Report. In January 2007 the Confederation of British Industry (CBI) launched a climate change task force which is chaired by Ben Verwaayen.

For more detailed information go to our climate change [website](#).

## Action on climate change

This section summarises the action we have taken on the four areas of our climate change strategy. Up to now most of our efforts have been focused on reducing our own footprint but we expect this to change as we implement our new strategy.

### Reducing our own footprint

Our carbon emissions come from two sources: directly from the fuel we burn to heat our buildings, run our vehicles and power standby generators; and indirectly from the electricity we buy and from business travel. Our efforts to improve energy efficiency include:

- Monitoring electricity use through online reports updated every half-hour.
- Surveys carried out by specialist consultants which identify opportunities to save energy in our network buildings.
- Selecting energy efficient equipment and installing building management systems that integrate heating and cooling, reducing waste
- Since 2004 we have sourced nearly all our UK electricity from low-carbon sources, including renewable energy and combined heat and power.
- Encouraging teleconferencing, home- and flexi-working that reduce employee business travel. See [Environmental benefits](#).

In financial year 2007, BT extended its UK Green Energy contract until 2010. By purchasing green energy we are preventing annual CO<sub>2</sub> emissions equivalent to those resulting from the electricity consumption of over 300,000 households - roughly the number of those in Liverpool and Cardiff combined.

In financial year 2007, we conducted a complete review of our energy sourcing and explored the potential for increasing our use of wind-generated electricity.

We now provide data management services for many of our large customers. Data centres are high-energy consumers. This year we audited energy consumption at 10 of our data centres to assess opportunities to increase energy efficiency. Additionally, we identified unused and underused equipment at our data centres in the UK and have decommissioned or consolidated around 3,000 servers, equating to approximately 800 2kW equivalent racks of equipment. We expect this to save 23GWhrs of electricity per year resulting in significant cost savings and reducing CO<sub>2</sub> emissions by 3,300 tonnes.

### **Influencing our customers**

We have started to identify ways that our products and services can help customers reduce their impact on climate change. For example, we are developing a Carbon Audit service to help business customers understand the carbon footprint of their ICT systems and use technology to reduce their overall emissions.

We are reviewing the energy consumption of the hardware products that we sell and investigating new carbon saving ICT applications.

### **Influencing our suppliers**

We have established procurement principles that support our climate change strategy. We will use these to encourage suppliers to offer products and services with a reduced environmental impact. Energy consumption will be one of the mandatory criteria used in all tender processes. See [Suppliers](#).

For example, in a recent tendering exercise for broadband products energy consumption was one of the tender criteria and suppliers were assessed against their compliance with 'The EU Code of Conduct on Efficiency of External Power Supplies'. This is a voluntary code designed to reduce the power consumption of electrical and electronic appliances when in stand-by mode.

### **Engaging our employees**

We have launched a series of employee road shows across the UK, Europe and the USA. These will update employees on our plans and tell them how they can get involved.

We are recruiting a network of employee volunteers, known as Carbon Busters, from across the business to champion our climate change efforts. We also have a taskforce of senior executives who meet on a monthly basis to drive progress.

We have launched a [climate change website](#) for employees and other stakeholders which includes a carbon calculator and ideas on how to reduce your carbon footprint.

## **Climate change pledges**

We have made the following pledges to help us achieve our climate change strategy:

To reduce our own footprint we will:

- Reduce our carbon emissions by 80% on 1996 levels by 2016
- Conduct a complete review of our energy supply and explore the further potential for wind powered generation
- Conduct a complete audit of energy consumption at our data centres

To influence our suppliers we will:

- Include energy consumption as a contract adjudication criterion in all tender processes
- On contract renewal, we will require a product's energy consumption to be lower than its predecessor

To influence our customers we will:

- Provide hardware that uses less energy
- Offer specific ICT applications that will help create a low carbon economy

We will engage our 106,000 employees by:

- Helping them reduce their personal carbon footprints
- Empowering them to influence their local communities

## **Performance on climate change**

We have reduced our total UK CO<sub>2</sub> emissions by 60% on 1996 levels. This is equivalent to an annual saving of 0.97 million tonnes of CO<sub>2</sub>. We are on track to meet our 80% reduction target by 2016.

Our emissions reductions already exceed the UK Government's target to reduce greenhouse gases emissions by 20%, by 2010 (from a 1990 baseline) and the UK's Kyoto Protocol target of a 12.5% reduction by 2010.

We report our emissions according to the inventory guidelines detailed in the Greenhouse Gas (GHG) Protocol. This initiative, hosted by the World Business Council for Sustainable Development, brings together leading experts on greenhouse gas emissions to develop internationally-accepted accounting and reporting standards.

Click on the icons below for more information on our CO<sub>2</sub> and CO<sub>2</sub> equivalent emissions.

## Climate change - Key Performance Indicators

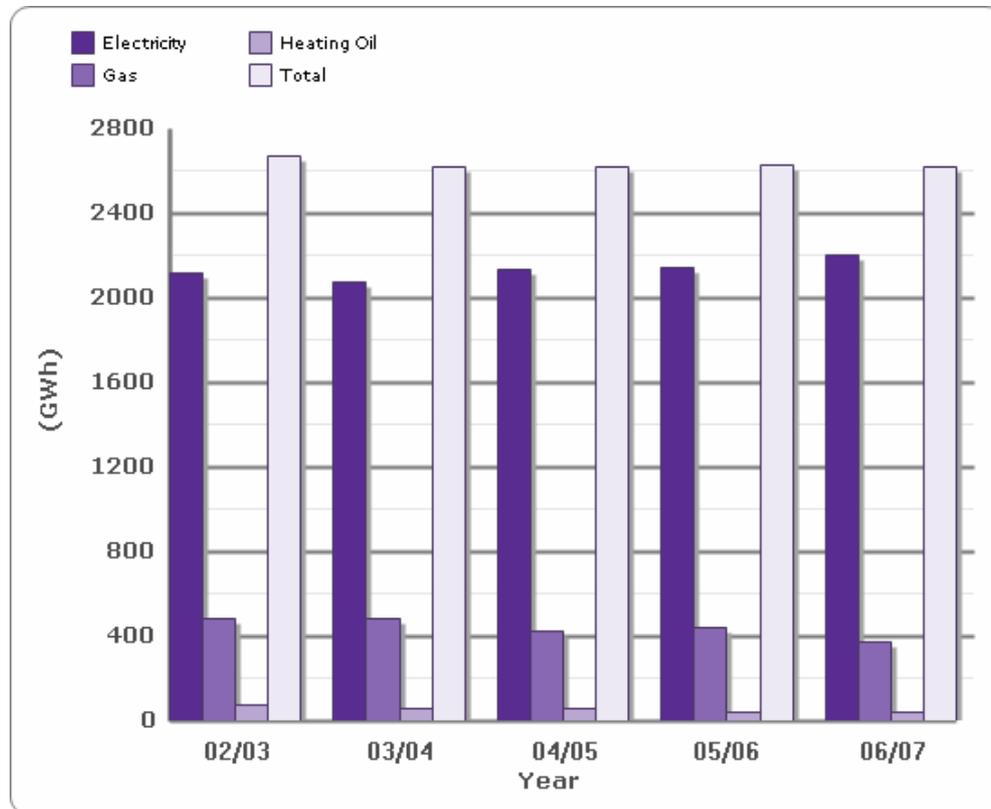
Indicator	Description	Measure	Target
<b>Global Warming CO2 emissions</b>	A measure of BT's climate change impact	2007 financial year UK CO2 emissions were 0.64 million tonnes, 60% below the 1996 level.	2016 CO2 emissions to be 80% below 1996 levels.

## Climate change Targets

Start Date	End Date	Description	Update	Target Status
April 2007	December 2016	BT will reduce its carbon dioxide emissions (measured in tonnes CO2 equivalent) to 80% below 1996 levels.		New
April 2007	December 2012	20% of BT's employees will be actively engaged in reducing carbon footprint at work and at home.		New
April 2007	March 2009	BT will complete the design for BT's Data Centre of the future and start rolling out to the estate.		New
April 2007	December 2008	BT will inform BT employees of the impacts of climate change and what they can do to help mitigate these impacts (this will form part of the engagement plan.)		New
April 2007	March 2008	BT will execute both internal and external Climate Change communications plans.		New
April 2007	March 2008	BT will produce a report on energy efficiency options, possible targets and labelling for key consumer products.		New
April 2007	March 2008	BT will produce a study of energy efficiency options, possible targets and labelling for key business products.		New
April 2007	March 2008	BT will implement energy savings measures to deliver energy reduction of 5GWh across the UK data centre estate.		New
April 2007	March 2008	BT will assess the fuel saving benefit from 50 commercial vehicles used by drivers trained on fuel-efficient driving techniques.		New
April 2007	March 2008	BT will order all new light commercial vehicles that will limit speed to a maximum speed set of 70mph.		New
April 2007	March 2008	BT will hold an event with its Suppliers to engage them on Procurement's CSR goals including Climate Change, the Procurement Principles and drive progress towards the Vision "harness communications to tackle climate change"		New
April 2007	March 2008	BT will implement the following Climate Change Procurement Principles to incorporate energy consumption and environmental factors into our procurement processes over the coming year: • We will harness the capability, diversity and innovation of our supply base to add value to our business and encourage suppliers to offer solutions which have a reduced environmental impact. • That the energy consumption and environmental impact of a product or service (from manufacture, through usage, to disposal) is a mandatory criterion in all tender adjudication. • That the energy consumption and environmental impact of any replacement product or service (from manufacture, through usage, to disposal) is less than its predecessor.		New
April	December	BT will begin a trial on hybrid vehicles in		New

2007	2007	collaboration with a manufacturer.		
April 2007	September 2007	BT will define a roadmap for establishing an EMS in all countries.		New
April 2007	August 2007	BT will roll out a Climate Change road-show.		New
April 2006	March 2007	As part of the roll out of BT's 21CN next generation network, BT will implement a sub metering strategy at 30 of its 'pathfinder' sites.	Sub metering is included in the scope of the Infrastructure design for Pathfinder sites. Metering has been installed at some sites in preparation for equipment installation.	Delayed
April 2003	March 2010	BT will reduce its carbon dioxide emissions (measured in tonnes CO2 equivalent) to 25% below 1996 levels.	We are currently on target to meet this objective. However, we have now superseded this with a more challenging target of an 80% reduction by 2016.	Superseded

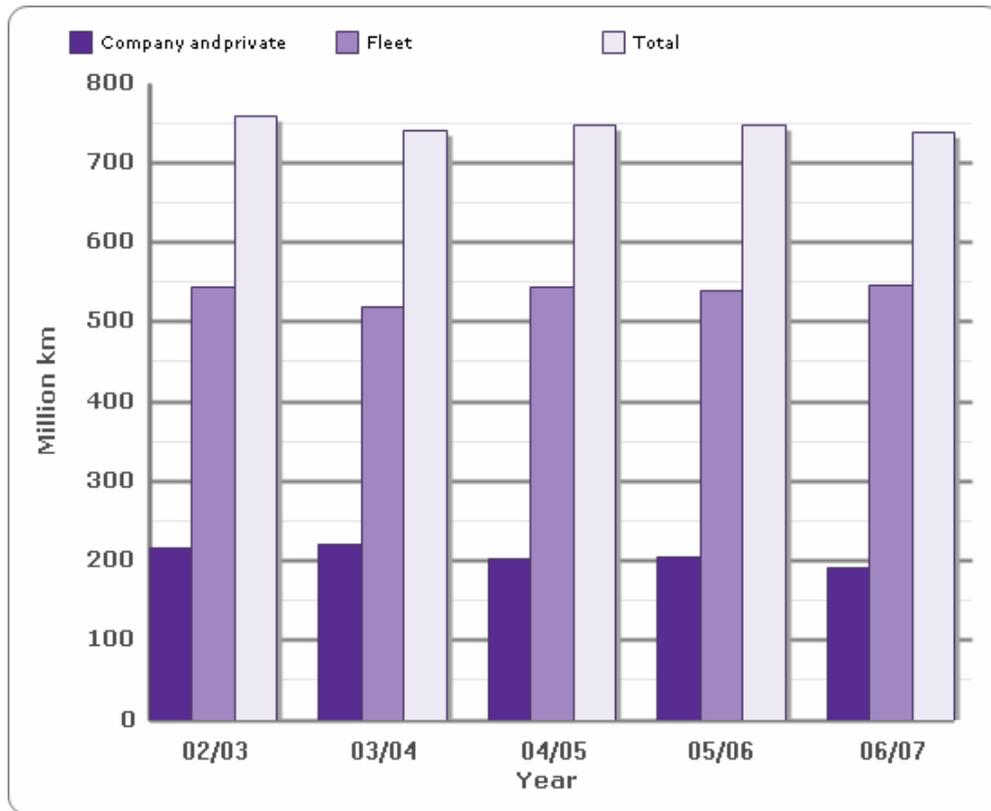
## Energy consumption



Excludes BT Global Services outside the UK.

Source: Invoices (not weather corrected). Figures include BT plc, BT Northern Ireland & Manx Telecom. Figures exclude Subsidiary companies and BT Tenants

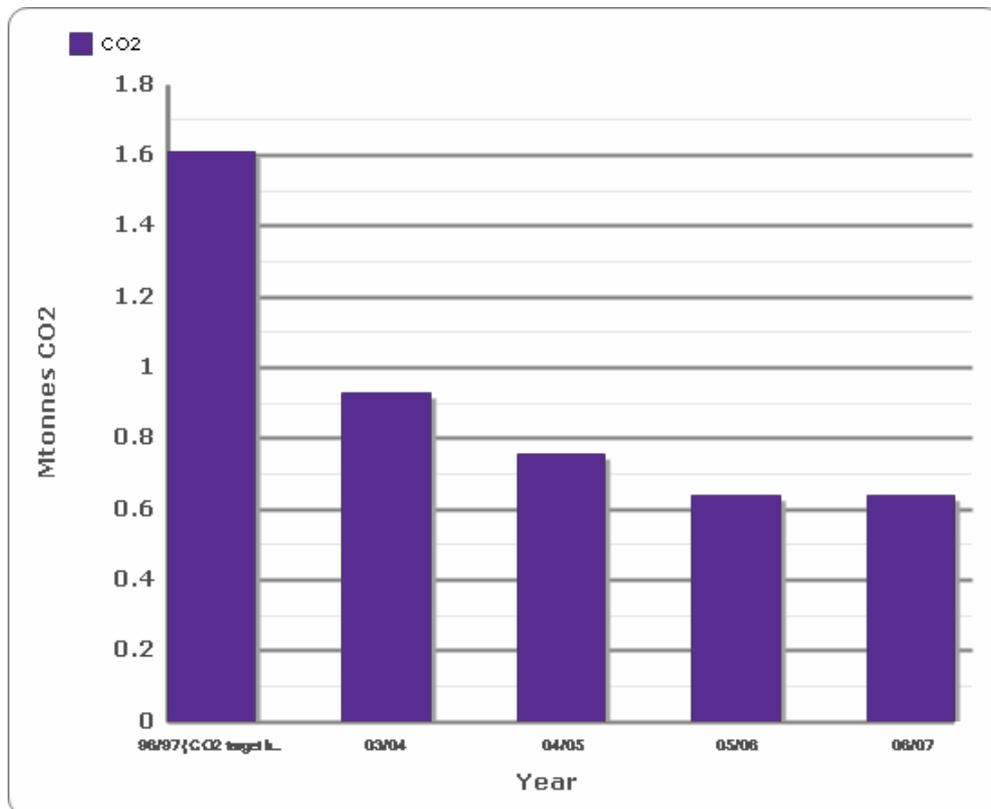
## Distance travelled by vehicles on BT Business



Excludes BT Global Services outside the UK.

Source: BT's Vehicle Database & Business Expense Claims

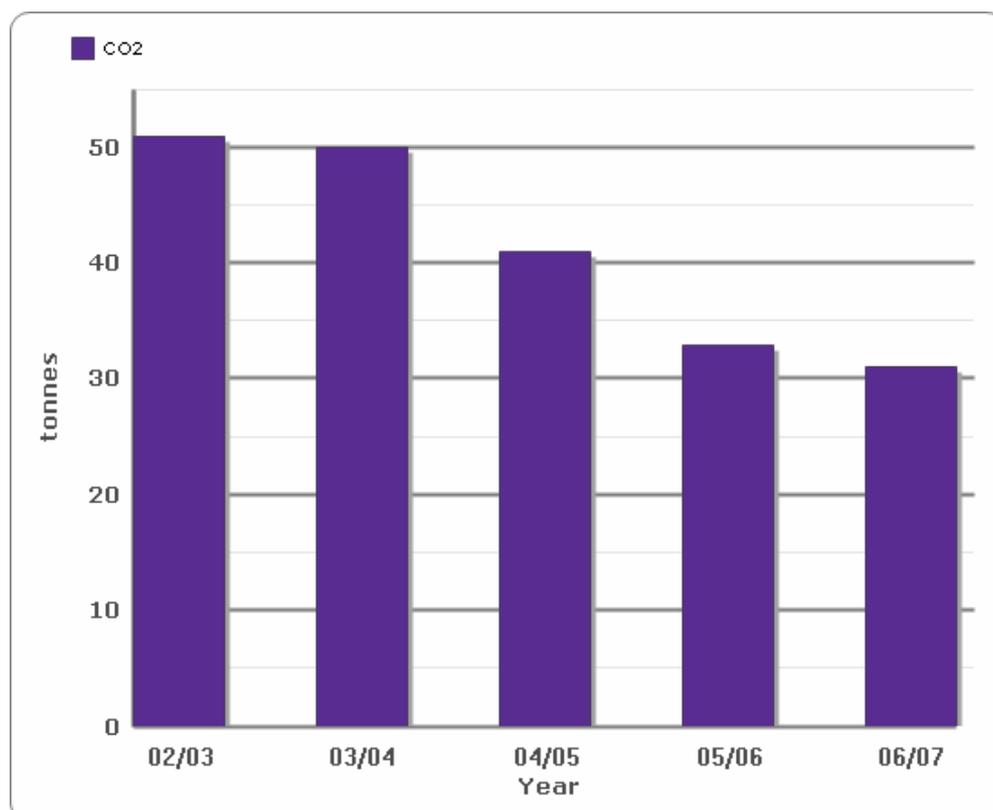
## CO2 equivalent emissions



Excludes BT Global Services outside the UK. (96/97 is the CO2 target base year)

Source: Invoices, BT vehicle database, BT refrigerants database, BT expenses unit, BT travel management, DETR, AEAT NETCEN

## CO2 emissions per £m Turnover



Excludes BT Global Services outside the UK.  
Source: Annual Report & Accounts, CO2 Model

### 2007 UK CO2 Model

BT Carbon Dioxide (CO2 equivalents) Model		Base Year					
Emission Source		96/97 (Base)	03/04	04/05	05/06	06/07	
		Amount (kg)	Amount (kg)	Amount (kg)	Amount (kg)	Amount (kg)	
SCOPE 1	Stationary Combustion						
	Electricity Production - Oil Combustion	Note 2	9,030,000	6,450,000	3,671,315	1,878,311	
	Gas Combustion	110,770,000	92,599,797	81,196,740	83,794,467	71,270,559	
	Oil Combustion	66,500,000	15,677,851	14,352,750	10,342,249	10,055,239	
	Refrigeration Gases (HFCs and SF6 only)	Note 2	886,004	2,406,894	1,433,998	3,240,410	
	Commercial Fleet Diesel	167,232,000	131,282,272	126,699,464	129,340,509	125,686,194	
	Commercial Fleet Petrol	18,480,000	9,951,175	9,603,799	5,933,994	5,162,533	
	Company Car Diesel	24,021,000	8,182,973	11,153,473	15,392,853	15,937,594	
	Company Car Petrol	16,296,000	25,513,068	17,303,091	12,072,696	9,273,486	
	<b>Total Scope 1 Emissions</b>		<b>403,299,000</b>	<b>293,123,140</b>	<b>269,166,211</b>	<b>261,982,081</b>	<b>242,504,326</b>
SCOPE 2	Purchased Electricity						
	Grid Electricity	1,202,340,000	182,898,288	132,827,077	18,006,138	12,694,005	
	CHP (low CO2) Electricity	0	411,252,000	307,424,890	310,791,276	328,835,505	
	<b>Total Scope 2 Emissions</b>		<b>1,202,340,000</b>	<b>594,150,288</b>	<b>440,251,967</b>	<b>328,797,414</b>	<b>341,529,510</b>
<b>Combined Scope 1 &amp; 2 Emissions</b>			<b>1,605,639,000</b>	<b>887,273,428</b>	<b>709,418,178</b>	<b>590,779,495</b>	<b>584,033,836</b>
SCOPE 3	Cars on BT Business (Diesel)	Note 1	600,521	600,826	1,805,450	1,642,309	

Cars/Motorcycles on BT Business (petrol)		3,584,361	3,785,867	1,420,477	1,033,503
Refrigeration Gases (CFCs and HCFCs only)	Note 2	6,727,767	7,763,662	4,375,817	6,388,124
Rail travel	Note 2	12,168,782	13,484,611	14,594,061	13,826,495
Air Travel (short haul)	Note 2	4,711,583	6,006,193	7,553,833	7,328,436
Air Travel (long haul)	Note 2	7,000,831	6,029,284	7,864,527	8,802,487
Hire Cars (Diesel)	Note 2	1,163,209	2,670,362	2,085,571	2,896,157
Hire Cars (Petrol)	Note 2	12,316,408	12,777,391	5,409,009	9,340,850
Total Scope 3 Emissions	0	48,273,461	53,118,196	45,108,745	51,258,362

**Total CO2 emissions (kgs)** 1,605,639,000 935,546,889 762,536,374 635,888,240 635,292,197

**Source: Invoices, BT vehicle database, BT refrigerants database, BT expenses unit, BT travel management, DETR,**

**AEAT NETCEN**

**Notes: 1. Included in company car data**

**2. Data not available**