



DB Climate Change Advisors Know The Number

CARBON COUNTER FACT SHEET



Q. WHAT IS THE CARBON COUNTER?

A. We believe the Carbon Counter is the world's first and only scientifically valid, real-time display of the estimated running total amount of long-lived greenhouse gases in the atmosphere. The counter displays the estimated current atmospheric quantities of greenhouse gases and shows how quickly these quantities are increasing.

Deutsche Asset Management—one of the world's leading climate-change investors—worked with a team of scientists at MIT (Massachusetts Institute of Technology) to develop the algorithm behind the real-time display.

Q. WHAT EXACTLY IS THE CARBON COUNTER COUNTING?

A. All major, long-lived greenhouse gases regulated under the Kyoto and Montreal Protocols (24 gases) are included in the measurement. Ozone and aerosols are not included in the measurement.

Q. WHERE ARE THEY GETTING THEIR DATA?

A. Carbon-dioxide data comes from the National Oceanic and Atmospheric Administration (NOAA). Non-CO₂ data are from NASA's Advanced Global Atmospheric Gases Experiment (AGAGE).

Q. WHAT PRODUCES THE GASES BEING MEASURED BY THE CARBON COUNTER?

A. Human activity since the beginning of the Industrial Revolution has produced most of the increases in the gases being measured by the Carbon Counter. Natural sources of the gases include forest fires, volcanic activity, wetlands, and soils. Fossil fuel use in the power, transport, industrial, commercial sectors and land use, agriculture, and waste management are major human activities that contribute to greenhouse gas emissions.

Q. HOW OFTEN ARE THE DATA UPDATED?

A. The display shows the real-time change between the starting and ending values received from MIT every month. The sign updates its display every tenth of a second.

Q. WHOSE IDEA WAS THE CARBON COUNTER?

A. Global Head of Deutsche Asset Management (DeAM) Kevin Parker conceptualized the Carbon Counter initiative more than a year ago.

Q. WHAT WAS DEAM'S INTEREST IN LAUNCHING THE CARBON COUNTER?

A. Deutsche Asset Management is seeking to raise public awareness of climate change. As investors, we know the importance of measurement so that we can track progress. Our approach is to start by understanding the quantity of long-lived greenhouse gases that are building up in the world's atmosphere and are leading to global warming.



**Q. IS THIS BILLBOARD JUST A BIG ADVERTISEMENT FOR DEUTSCHE BANK CLIMATE CHANGE ADVISORS (DBCCA)?**

A. Our goal is to enhance public awareness by creating a public carbon counter for display in New York City and on the Web globally. The Carbon Counter and “Know the Number” campaign are part of a groundbreaking climate-change awareness and education initiative.

The project underscores DeAM’s firm commitment to developing climate-change-focused investment strategies.

Q. WHAT EXACTLY DOES DEAM PROPOSE THE PUBLIC DO ABOUT “THE NUMBER”?

A. We believe that a greater awareness of the climate change problem will help to change people’s attitudes. We also accept that the science is conclusive, and that a low-carbon economy is essential.

The carbon counter website also has a variety of suggestions on how individuals can help measure and decrease their carbon footprint at home, at work, or while traveling. See www.know-the-number.com for the section labeled “What you can do” for more information, including a carbon-footprint calculator.

Q. HOW MUCH MONEY DOES DEAM CURRENTLY HAVE INVESTED IN CLIMATE CHANGE BUSINESSES? WHAT IS DEAM’S GLOBAL AUM?

A. Deutsche Asset Management is one of the leading climate change investors in the world, with approximately \$5.25 billion under management as of June 2009. As of June 2009, total AuM for DeAM is more than \$460 billion.

Q. WHERE IS THE CARBON COUNTER LOCATED? WHY DID YOU CHOOSE THAT LOCATION?

A. The sign is located adjacent to Madison Square Garden and Penn Station at the intersection of Seventh Avenue and 33rd Street in New York City. This location is a high-visibility property with over 500,000 commuters per day passing through this central hub, which is also home to major business, sports events, transportation and retail. It is also well illuminated.

Q. IS THE SIGN CARBON NEUTRAL?

A. The Carbon Counter is carbon neutral, using guaranteed CERs (low risk carbon credits) to offset its energy use. These are the same robust, UN-approved carbon offsets that Deutsche Bank is using as part of its carbon-neutrality initiative. Guaranteed secondary CERs are low-risk carbon credits, where other parties take on non-delivery risk. Further, the digital numbers are generated by low-energy LEDs (light emitting diodes).

Q. HOW LONG WILL THE SIGN REMAIN IN PLACE?

A. The current contract allows the sign to remain in place for the next three years.

Q. HOW BIG IS THE SIGN?

A. The sign is nearly 70 feet tall by 37 feet wide.

Q. WHY DID YOU PUT IT HERE WHEN YOU ARE A GERMAN COMPANY? WHY NOT FRANKFURT OR LONDON? DO YOU PLAN TO ERECT MORE COUNTERS IN OTHER GLOBAL LOCATIONS?

A. DeAM is headquartered in New York, and we believed that a sign located in the heart of Manhattan would receive massive global attention.





Q. WHAT SORTS OF TECHNOLOGIES DOES DEAM THINK REPRESENT THE MOST PROMISING SOLUTIONS TO THE CLIMATE-CHANGE PROBLEM?

A. Our climate-change universe covers the following sectors, per our Investing in Climate Change 2009 paper, which is available on the website, www.know-the-number.com :

Clean Energy	Environmental Resource Management	Energy & Material Efficiency	Environmental Services
Power Generation <ul style="list-style-type: none"> ▶ Solar ▶ Wind ▶ Clean coal (sequestration, infrastructure) ▶ Other clean power generation (Geothermal, hydro, biomass, wave / tidal, methane capture, nuclear) 	Water <ul style="list-style-type: none"> ▶ Desalination / purification ▶ Wastewater treatment ▶ Distribution and management 	Advanced Materials <ul style="list-style-type: none"> ▶ Advanced coatings ▶ Lightweight substitutes ▶ Solvents and biodegradables 	Environmental Protection <ul style="list-style-type: none"> ▶ Land conservation ▶ Environmental restoration ▶ Timberland ▶ Forestry ▶ Sea defenses ▶ Carbon
Cleantech Infrastructure <ul style="list-style-type: none"> ▶ Infrastructure management ▶ Supply chain management 	Agriculture <ul style="list-style-type: none"> ▶ Irrigation innovation ▶ Clean pesticides ▶ Consumer food purity ▶ Seeds ▶ Timberland 	Building Efficiency <ul style="list-style-type: none"> ▶ Building management including green data center management ▶ Heating & cooling systems ▶ Lighting systems ▶ Insulation ▶ Micro generation / micro CHP 	Business Services <ul style="list-style-type: none"> ▶ Insurance ▶ Logistics ▶ Green focused banking ▶ Microfinance ▶ Consultancy/advisory ▶ Intellectual property ▶ Weather
Power Storage Technology <ul style="list-style-type: none"> ▶ Battery technology and fuel cells 	Waste Management <ul style="list-style-type: none"> ▶ Recycling ▶ Toxin management ▶ Energy from waste ▶ Land remediation 	Power Grid Efficiency <ul style="list-style-type: none"> ▶ Transmission (including smart grids) ▶ Smart metering ▶ Storage ▶ Infrastructure 	
Transport & Sustainable Biofuels <ul style="list-style-type: none"> ▶ Low carbon transportation ▶ Bio-diesel, ethanol 			

Source: DeAM analysis, October, 2008.

Q. HOW MUCH MONEY IS NEEDED TO SOLVE THE PROBLEM OF GLOBAL WARMING?

A. Based on surveys of market forecasts, Deutsche Bank Climate Change Advisors believes that to reduce greenhouse gases to required levels will require hundreds of billions of dollars of investments per annum over the next forty years.

Q. WHY CAN'T GOVERNMENTS FUND THE SOLUTIONS TO GLOBAL WARMING ON THEIR OWN?

A. The enormity of the challenge and the scale of investment required mean there must be a partnership between public and private sectors: Government will need to set the direction and provide incentives to the capital markets to get them engaged. Government action is essential to set the rules and regulatory structures necessary to limit emissions and foster alternative forms of energy and other climate-change industries. Decisive public-sector action will give investors in the private sector the price signals and confidence they need to invest.

Q. HOW MUCH MONEY IS CURRENTLY BEING INVESTED IN THE CLIMATE CHANGE SPACE?

A. According to New Energy Finance, a total of \$155 billion was invested worldwide in renewable energy in 2008, with wind attracting the highest investments at \$51.8 billion, followed by solar at \$33.5 billion, and biofuels at \$16.9 billion. The total for 2008 is four times the investments made in renewable energy in 2004, though there is a decline of 53% in the first quarter of 2009, with \$13.3 billion invested in renewable energy so far this year.





Q. What is Deutsche Bank doing to solve the problem of climate change?

Since June 2008 the Bank has also been raising environmental awareness among its nearly 80,000 employees around the world, providing them with regular information on energy, water and paper conservation and environmentally sound methods of waste disposal.

Procuring renewable energy is one element of our overall global sustainability initiative. Deutsche Bank believes sustainability means future viability—with the aim of ensuring that future generations enjoy a healthy environment, as well as stable economic and social conditions. We are committed to this guiding principle.

Under the leadership of Chairman of the Management Board and Group Executive Committee Dr. Josef Ackermann, Deutsche Bank has committed to reduce its global carbon footprint by 20 percent every year, compared to its 2007 base year, in order to neutralize CO₂ emissions of its worldwide operations by 2013. The Bank plans to reduce its carbon emissions through sustainable improvements in the energy efficiency of its buildings and technology infrastructure, greater use of renewable energy sources, as well as the purchase of emission certificates to offset any remaining CO₂ emissions.

Deutsche Bank is driven by the vision of becoming the world's leading company on the climate-protection front. It is committed to the principles of sustainability (harmonizing economy, ecology and society). By strategically linking and integrating sustainability management in the Group-wide "Environmental Steering Committee" and the "Group Reputational Risk Committee," Deutsche Bank has established benchmarks for securing sustainability requirements in all business activities.

For more information on the Deutsche Bank Group's efforts, please visit www.db.com

DB Climate Change Advisors
Deutsche Bank Group



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