



Carbon Disclosure Project (CDP4): Xerox Corporation

Xerox Corporation (NYSE:XRX) is a technology and services enterprise that helps businesses deploy Smarter Document ManagementSM strategies and find better ways to work. Its intent is to constantly lead with innovative technologies, products and services that customers can depend upon to improve business results.

Xerox provides the document industry's broadest portfolio of offerings. Digital systems include color and black-and-white printing and publishing systems, digital presses and "book factories," multifunction devices, laser and solid ink network printers, copiers and fax machines. Xerox's services expertise is unmatched and includes helping businesses develop online document archives, analyzing how employees can most efficiently share documents and knowledge in the office, operating in-house print shops or mailrooms, and building Web-based processes for personalizing direct mail, invoices, brochures and more. Xerox also offers associated software, support and supplies such as toner, paper and ink.

In May 2005, Xerox announced its pledge to cut greenhouse gas emissions from its worldwide operations by 10 percent from the baseline year 2002 to the end of 2012. The target complements the company's ongoing environmental programs, which include products designed for energy efficiency and innovative remanufacturing and recycling practices. For more details about Xerox's environmental programs, see www.xerox.com/environment

1. **General:** How does climate change represent commercial risks and/or opportunities for your company?

As a producer of energy-using products such as digital presses, printers and copiers, Xerox has long invested in product designs and technologies that conserve energy and reduce associated greenhouse gas emissions. Xerox is a charter partner of the US Environmental Protection Agency International ENERGY STAR[®] program. Over the last five years, greater than 95% of eligible Xerox products met the requirements of that program. These successes have served to meet our customer's needs to reduce energy use as part of their own environmental and climate change strategies. Consistent with Xerox's environmental strategy, the company is continuing to invest in energy efficient product designs to meet future customer demands.

2. **Regulation:** What are the financial and strategic impacts on your company of existing regulation of GHG emissions, and what do you estimate to be the impact of proposed future regulation?

Xerox is not directly subject to existing regulations of GHG emissions in countries where it operates. Indirect impacts may include increased energy costs. Another potential indirect impact is procurement regulations that subject Xerox products to increasingly stringent energy efficiency standards.

3. **Physical risks:** How are your operations affected by extreme weather events, changes in weather patterns, rising temperatures, sea level rise and other related phenomena both now and in the future? What actions are you taking to adapt to those risks, and what are the associated financial implications?

Xerox is not subject to unique risks due to changing weather patterns, rising temperatures and sea level rise. In the case that Xerox operations or customers' operations are impacted by unpredictable events such as extreme weather, the company's well-defined crisis management plan will be executed. It covers communication with employees and customers, management of employee health and safety issues, business continuity and resumption processes, and interaction with government organizations.

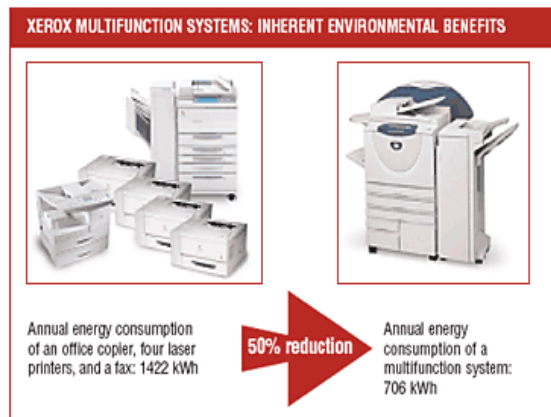
Xerox is experienced in working with customers to ensure continuity of critical applications by prioritizing business needs and developing customer-specific preparedness plans where appropriate. These processes were successfully executed most recently in response to impacts associated with Hurricane Katrina.

4. **Innovation:** What technologies, products, processes or services has your company developed, or is developing, in response to climate change?

Xerox has long invested in product designs and technologies that conserve energy and reduce associated greenhouse gas emissions. Some examples:

ENERGY STAR products: Xerox is a charter partner of the US EPA International ENERGY STAR program. Over the last five years, greater than 95% of eligible Xerox products met the requirements of that program with annual savings of nearly 600,000 metric tons of GHG emissions (CO₂e).

Multifunction systems: Xerox multifunction systems reduce the amount of energy required to provide customers with copy, print, fax and scan capabilities by combining the functions of multiple products into one machine. The annual energy consumption of a Xerox WorkCentre or WorkCentre Pro multifunction system is approximately 50 percent less than the combined annual energy consumption of the individual ENERGY STAR-qualified copier, fax, and printers it replaces.



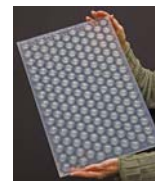
Reducing energy demands of conventional toner:

E-Agent - or embrittling agent - is a special chemical ingredient that is reducing the amount of energy needed to make certain Xerox printer toner by up to 22 percent. Xerox is the inventor and world's largest manufacturer of toner, producing it in eight locations worldwide. Toner is the "dry ink" powder fused on paper to make laser prints and copies. In the conventional toner manufacturing process, large particles of plastics, colorants and other additives are mechanically pulverized into small, relatively uniform toner particles. It takes about 50 of these toner particles to print a period on this page. The grinding process is the most energy-intensive step, consuming up to 40 percent of the total energy used for making toner. The "grinding" happens when toner particles are blown against each other at high speeds inside a chamber, and the collisions cause the particles to split apart. Xerox engineers knew that if the toner particles become easier to grind, the whole process becomes more energy efficient. They discovered that by adding the embrittling agent to the toner "recipe," particles would be more likely to shatter upon contact and reach the desired particle size more quickly. By 2008, the energy savings associated with Xerox's use of E-Agent is expected to avoid over 18,000 metric tons of carbon dioxide emissions - the equivalent of saving the annual emissions from over 2,500 midsize American cars.



Emulsion Aggregation Toner. Xerox introduced emulsion aggregation (EA) toner in 2002. EA toner is produced using a breakthrough process that builds toner particles to any desired shape or size using a chemical method. By contrast, traditional toner manufacturing involves energy-intensive mechanical grinding of large particles of solid colored plastic into smaller ones, followed by a classification process to sort out the desired size. The extremely small size, round shape and low fusing temperature requirements of emulsion aggregation toner particles means that the system uses about 50 percent less toner per printed page and significantly reduces the energy required per print. More than 15 Xerox products use emulsion aggregation toners including the Xerox CopyCentre C123/128 copiers, the WorkCentre M123/M128 and the WorkCentre Pro 123/128 multifunction systems.

PARC's CleanTech Initiative: A Xerox subsidiary - the Palo Alto Research Center in Palo Alto, Calif. - is looking at how its research expertise can lead to new alternative-energy solutions. Called the "clean technologies" initiative, PARC's research program is designed to focus on key areas of renewable energy. It employs PARC's unique multidisciplinary approach to develop fresh ways to solve energy challenges, including solar energy generation; energy distribution, reduction and conservation; and contamination monitoring. As the first part of this initiative, announced in February 2006, PARC is working with SolFocus Inc., a manufacturer of low-cost solar energy systems, to cut the cost of solar power by as much as half.





5. **Responsibility:** Who at the board level has specific responsibility for climate change related issues and who manages your company's climate change strategies? How do you communicate the risks and opportunities from GHG emissions and climate change in your annual report and other communications channels?

Ursula Burns, President, Xerox Business Group Operations is the senior officer charged with responsibility for the company's climate change strategies. Patricia Calkins, Vice-president, Environment, Health and Safety has operational responsibility for climate change related issues.

Communication of climate change strategies is included in the company's annual report (Corporate Social Responsibility section) with more detail available in the company's Environment, Health and Safety report. Both reports are available at www.xerox.com. Xerox publicly announced its reduction target in May 2005. Xerox is a member of the U.S. EPA Climate Leaders and Business Roundtable Climate Resolve program, so we report our emissions reductions progress through them as well.

6. **Emissions:** What is the quantity in tons CO₂e of annual emissions of the six main GHG's produced by your owned and controlled facilities in the following areas, listing data by country?

Xerox has adopted the GHG Protocol methodology. As a U.S. EPA Climate Leader, Xerox also followed additional guidance provided by this program.

Xerox's GHG inventory includes direct emissions from combustion of fossil fuels -- primarily natural gas -- and indirect emissions from purchased electricity and steam at our manufacturing sites, offices and warehouses. The inventory also includes combustion of gasoline and diesel fuels in our service and sales vehicle fleet, corporate jet, and from local travel at major sites. At this time, Xerox's inventory does not include scope 3, optional sources such as employee business travel, contract manufacturing and outsourced product distribution.

The following conditions were applied when setting boundaries for Xerox's GHG Inventory:

- All manufacturing facilities worldwide
- Xerox-owned and leased facilities greater than 50,000 square feet and for which Xerox has greater than 50% control
- Significant mobile sources: Xerox Corporate Trucking, Corporate Jet, Xerox-owned or leased service/sales fleets, and Monroe County, NY facility maintenance fleet

Xerox's inventory management plan and base year inventory have been accepted by the US EPA Climate Leaders program. The company plans to register its emissions with the California Climate Action Registry and obtain third-party certification by year end 2006.

In 2004, Xerox GHG emissions totaled 458,000 metric tons of CO₂e. Fifty-nine percent were indirect emissions from purchased electricity and steam. The remaining 41 percent were direct emissions from combustion of natural gas, gasoline and diesel fuel. Seventy-nine percent of company emissions were associated with



Xerox owned or leased facilities while the balance – 21 percent -- was associated with our service and sales vehicle fleet and other mobile sources.

Emissions

Globally			
Year: 2004	Scope 1: Direct Metric Tons of CO₂e	Scope 2: Indirect Metric Tons of CO₂e	Total Metric Tons of CO₂e
US	126,471	202,980	329,451
Canada	12,517	6,757	19,274
Holland	4,320	19,235	23,555
UK	2,783	8,122	10,905
Egypt	1	174	175
Spain	4,612	3,645	8,257
Ireland	2,465	18,682	21,147
Brazil	2,511	2,658	5,169
Mexico	2,201	1,904	4,105
India	1,621	4,382	6,003
France	224	395	619
Germany	114	65	179
Italy	59	530	589
Portugal	102	769	871
Argentina	46	355	401
Venezuela	56	535	591
Columbia	158	595	753
Europe Mobile Fleet	25,327	-	25,327
Misc. Non-US CO ₂ e from Methane	147	-	147
Misc. Non-US CO ₂ e from Nitrogen Oxide	313	-	313
Total	186,048	271,783	457,831

Annex B Countries of the Kyoto Protocol

Year: 2004	Scope 1: Direct Metric Tons of CO₂e	Scope 2: Indirect Metric Tons of CO₂e	Total Metric Tons of CO₂e
US	126,471	202,980	329,451
Canada	12,517	6,757	19,274
France	224	395	619
Germany	114	65	179
Ireland	2,465	18,682	21,147
Italy	59	530	589
Holland	4,320	19,235	23,555
Portugal	102	769	871



Spain	4,612	3,645	8,257
UK	2,783	8,122	10,905
Total	153,667	261,180	414,847

Countries participating in EU Emissions Trading Scheme (values from above)*

France	224	395	619
Germany	114	65	179
Ireland	2,465	18,682	21,147
Italy	59	530	589
Holland	4,320	19,235	23,555
Portugal	102	769	871
Spain	4,612	3,645	8,257
UK	2,783	8,122	10,905
Total	14,679	51,443	66,122

*Xerox is not eligible to participate in EU ETS.

7. Products and services: What are your estimated emissions in tones CO₂e associated with the following areas and please explain the calculation methodology employed.

- **Use and disposal of your products and services**
- **Supply chain**

Xerox estimates GHG emissions savings and reductions associated with use and disposal of our products in the following areas:

Customer use:

Xerox calculates the amount of GHGs saved at customer sites through energy efficient product designs. The company estimated that energy-efficient features in Xerox copiers and printers in 2004 enabled customers to avoid emitting 595,000 metric tons of greenhouse gases (CO₂e). From the years 2000-2004, the total energy savings is estimated to be 2.7 million metric tons of CO₂e.

Methodology: Annual energy savings from ENERGY STAR features are calculated by comparing the annual energy consumption of Xerox ENERGY STAR qualified product types to non-ENERGY STAR counterparts. Savings are aggregated across the estimated number of Xerox ENERGY STAR-qualified machines in customer locations worldwide. Energy reductions are translated into avoided carbon dioxide emissions using conversion factors from the U.S. EPA, the U.S. Department of Energy and the International Energy Agency.

Disposal of products: Parts reuse

Xerox estimates the annual savings associated with parts reuse associated with our product remanufacturing program. Nearly all Xerox-designed products are developed with remanufacturing and reuse in mind. As a result, equipment returned to Xerox at end of life can be remanufactured - rebuilt - to as-new performance specifications. Reusing parts requires less energy and fewer raw materials than manufacturing brand-new parts. The company estimates that in 2004, this practice prevented emission of 62,000 metric tons of greenhouse gases (CO₂e). From the years 2000-2004, the total avoided emissions is estimated to be 400,000 metric tons CO₂e.

Methodology: The energy savings used to calculate these avoided emissions represent the difference between energy required to build new parts and the energy required to process parts for reuse, assuming an average machine composition of 60 percent plastic and 40 percent steel. Energy savings calculations encompass “feedstock energy” (the energy content of the petroleum and coal raw materials converted to plastic and steel respectively) and energy required to process and transport materials throughout the life cycle. Life cycle energy data was obtained from Franklin Associates, Ltd. Energy savings were converted into avoided emissions of carbon dioxide using a U.S. energy profile and emissions factors calculated by the U.S. Environmental Protection Agency and Department of Energy. Feedstock energy was excluded from this conversion.

Disposal of products: Equipment recycling

Equipment and parts that cannot be reused are recycled, reducing GHG emissions by 182,000 metric tons of CO₂e in 2004 alone.

Methodology: Using the US EPA WASTE Reduction Model (WARM) Xerox calculated greenhouse gas emissions reduced by recycling the scrap metal and plastics from 49,000 tons of equipment and parts. This analysis assumed an average machine composition of 60 percent mixed plastic and 40 percent mixed metal.

8. Emission reduction: What is your firm’s current emission reduction strategy? How much investment have you committed to its implementation, what are the costs/profits, what are your emissions reduction targets and time-frames to achieve them?

For its company-wide operations, Xerox has adopted a goal of reducing its absolute GHG emissions by 10 percent by 2012 from a 2002 baseline. Reaching our target is expected to require a 30% or more improvement in average energy efficiency compared to 2002 levels. With rising energy and fuel costs, these efforts also present a significant opportunity to control energy related costs.

Xerox is on track to reach its goal. In 2004, energy consumption decreased by 3 percent, and greenhouse gas emissions were nearly 6 percent lower than in 2002.

Our strategies for meeting our reduction target include:

- *Engaging all Xerox employees and build support at all levels of the organization.* Xerox launched an internal program called Energy Challenge 2012 that encompasses the strategies and tactics Xerox is taking to ensure we meet our greenhouse gas reduction goals. Xerox's Environment, Health and Safety organization is leading this company-wide effort, along with the active involvement of many organizations across the company such as manufacturing, corporate real estate, technical services, global purchasing and others worldwide. Energy Challenge 2012 is relying on Lean Six Sigma methodologies to identify reduction opportunities, implement energy-saving projects, and track progress.
- *Shifts toward more energy efficient technologies.* One example is Xerox's commitment to emulsion aggregation (EA) technology which requires an estimated 25 percent less energy in the manufacture of this advanced EA toner when compared to conventional toner.





- *Process improvements that reduce energy demand.* For example, Xerox is implementing changes to its manufacturing of conventional toners yielding up to 22 percent reduction in energy demand per pound of toner.
- *Increased reliability of Xerox equipment and parts.* Xerox products are increasingly reliable and parts are longer lasting. This means that fewer service calls are necessary resulting in fewer miles driven by Xerox technicians and reduced gasoline consumption. Longer lasting parts also mean that less manufacturing energy is invested over the life of a Xerox product.
- *Equipment upgrades and energy management programs.* Annually, each facility identifies opportunities to reduce energy consumption through equipment upgrades and better energy management. For example, some Xerox facilities save energy through “free” cooling. In winter months, the facilities cool process water by running it through outdoor pipes instead of using energy-consuming chillers (industrial air conditioners).
- *Use of renewable energy sources.* Renewable sources of energy such as wind and solar are being investigated for green power purchases and potential for on-site generation. For example, starting in late 2004, several of Xerox’s large office buildings in the United Kingdom began purchasing “green power,” reducing annual GHG emissions by 6,000 metric tons.

9. Emissions trading: What is your firm’s strategy for, and expected cost/profit from trading in the EU Emissions Trading Scheme, CDM/JI projects and other trading systems, where relevant?

These instruments are not relevant to Xerox at this time.

10. Energy costs: What are the total costs of your energy consumption, e.g. fossil fuels and electric power? Please quantify the potential impact on profitability from changes in energy prices and consumption.

Xerox’s costs of fossil fuels and electric power is <1% of revenue.

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