

# IBM's 2007 VOLUNTARY ENVIRONMENTAL KEY PERFORMANCE INDICATORS AND RESULTS

## Conservation:

- **Energy Conservation Goal:** Achieve annual energy conservation savings equal to 3.5% of IBM's total energy use.

**Results:** In 2007, IBM's energy conservation projects across the company delivered savings equal to 3.8% of its total energy use.

- **Water Conservation Goal:** Achieve average annual water conservation savings equal to 2% of IBM's annual water use at microelectronics manufacturing operations, based on the water usage of the previous year and measured over a rolling 5-year period.

**Results:** In 2007, water conservation and recycling initiatives in IBM's microelectronics manufacturing operations achieved a 4.1% savings rate (a savings of 1,601 thousand cubic meters (TCM) of water).

Over the past 5 years, IBM's microelectronics manufacturing operations achieved an average annual water savings of 6% versus the 2% goal established in 2000.

## Climate Protection:

- **CO<sub>2</sub> Emissions Reduction Goal:** Between 1990 and 2005, IBM reduced or avoided CO<sub>2</sub> emissions by an amount equivalent to 40% of its 1990 emissions through its global energy conservation program. IBM's new goal is to further extend this achievement by reducing CO<sub>2</sub> emissions associated with IBM's energy use 12% between 2005 and 2012 through:

- A. Energy conservation,
- B. Use of renewable energy; and/or
- C. Funding an equivalent CO<sub>2</sub> emissions reduction by the procurement of Renewable Energy Certificates (RECs) or comparable instruments

**Results:** In spite of its outstanding conservation efforts and use of renewable energy, IBM's net CO<sub>2</sub> emissions increased by 5% between 2006 and 2007 as a result of business growth. This is a 2% increase compared with the 2005 base year of IBM's goal.

*Between 1990 and 2007, IBM saved 4.6 billion kWh of electricity consumption, avoided nearly 3.1 million metric tons of CO<sub>2</sub> emissions (equal to 45% of the company's 1990 global CO<sub>2</sub> emissions) and saved over \$310 million through its annual energy conservation actions.*

These results include only those energy conservation projects which actually reduced or avoided energy use. Reductions from downsizings or the sale of operations are not included.

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- **PFC Emissions Reduction Goal:** Reduce perfluorocompound (PFC) emissions from semiconductor manufacturing 25% by 2010 against a base year of 1995.

**Results:** As of year-end 2007, IBM's emissions were 31.7% below the 1995 baseline amount of 381,000 metric tons of CO<sub>2</sub> equivalent.

In 1998, IBM became the first semiconductor manufacturer to publicly announce a specific PFC emissions reduction target.

### **Product Stewardship:**

- **Powder Coatings Goal:** Maintain a rate of powder coatings use at or above 90%

**Results:** In 2007, 99% of the decorative metal covers of IBM products were finished using powder coatings. This environmentally preferred material enabled IBM suppliers to avoid more than 122 metric tons of volatile organic compound (VOC) emissions that would have resulted had liquid paints been used for the same coverage.

*Since the inception of its Powder Coatings program in 1997, IBM has avoided the emission of 4.4 million pounds of VOCs.*

- **Recycled Plastics Goal:** Ensure recycled plastics represent 5% or more of the total plastics IBM procures annually under its corporate contracts for use in IBM products.

**Results:** In 2007, recycled plastic represented 10.6% of IBM's total plastic purchases (recycled and virgin plastics).

*Since the inception of its Recycled Plastics program in 1995, 11.8 million pounds of recycled resins have been procured under IBM's corporate contracts for use in IBM products.*

- **Product Recovery & Recycling Goal:** Reuse or recycle end-of-life products such that the amount of product waste sent by IBM to landfills or to incineration for treatment does not exceed a combined 3% of the total amount processed.

**Results:** In 2007, IBM's product end-of-life management operations worldwide processed 44,332 metric tons of end-of-life products and product waste, and sent only 0.8% of the total to landfills or for incineration, versus IBM's goal to minimize its combined product landfill use and incineration rate to no more than 3%.

**Since 1995, when IBM first began reporting this metric in the company's annual corporate environmental report, IBM has documented the collection and recovery of more than 1.5 billion pounds of product and product waste worldwide through year-end 2007.**

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- **Product Energy Efficiency Goals:** IBM's product energy efficiency goal is to continually improve the computing power delivered for each kilowatt-hour (kWh) of electricity used with each new generation or model of a product.

**Results:** In 2007, new products/models released for which there were previous generation products/models for comparison delivered 14.3 - 73.1% more computing capability for each kWh of electricity used.

### Pollution Prevention:

- **Hazardous Waste Reduction Goal:** Achieve year-to-year reduction in hazardous waste generation from IBM's manufacturing processes indexed to output.

**Results:** In 2007, IBM's hazardous waste generation indexed to output was reduced by 8.4%. This means that source reduction efforts avoided the generation of hazardous waste by 302 metric tons.

*Since 1987, the base year of this metric, IBM's total hazardous waste has decreased by 94.7%.*

- **Nonhazardous Waste Recycling Goal:** Send an average of 75% of the nonhazardous waste generated at locations managed by IBM to be recycled.

**Results:** In 2007, IBM sent 78% of its nonhazardous waste to be recycled, with 52% of the locations achieving or exceeding the 75% recycling goal.

### Chemical Use:

- **Chemical Use Goal:** Continual reduction in worldwide use of chemicals on the U.S. Toxic Release Inventory (TRI) list of chemical quantities.

**Results:** From 2006 to 2007, IBM's total chemical quantities worldwide decreased by 1,207 metric tons to 4,208 metric tons.

*Since 1993, the base year of this metric, IBM has reduced its total TRI chemical quantities worldwide by 86.3%.*