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|  | **Environmental Sustainability**  |

**Key Points:**

At Microsoft®, we are committed to software and technology innovations that help people and organizations around the world improve the environment. Our goal is to reduce the impact of our operations and products, and to be a leader in environmental responsibility. Environmental sustainability is a long-term business strategy with progress focused on:

* **Corporate environmental practices:** Microsoft is committed to ongoing evaluation and improvement of our business practices to minimize our direct and indirect impact on the environment.
* **Technology leadership and innovation**: Microsoft continually works to evolve its products and services to enable businesses and consumers to address pressing environmental issues.
* **Global** **partnerships**: Microsoft actively partners with governmental, non-governmental, academic and industry organizations to drive global action on environmental sustainability.

**Background**

At Microsoft, we believe in the potential of software and technology innovation to help people and businesses around the world improve the environment. *Our goal is to reduce the impact of our operations and products, and to be a leader in environmental responsibility.* We are committed to developing software, hardware, solutions, and services that can help customers and partners address increasingly complex environmental challenges. Microsoft is working with leading organizations around the globe to help increase the value that our technologies can bring to environmental challenges.

**Corporate Environmental Practices**

Microsoft is committed to ongoing evaluation and improvement of our business practices to minimize our direct and indirect impact on the environment. A few examples include:

* **Data Center Operations**: We are working to create energy efficient data centers. We use sustainable building practices and renewable resources whenever possible and future data centers are being designed under the LEED Green Building Rating System. Our site opening in Dublin, Ireland in 2009will be cooled with outside air for a 30%-50% greater efficiency than similar facilities of comparable scale. We have also published best practices to share its expertise with industry.
* **Transportation and Commuting**: Microsoft has created and funds its own transport system called the Microsoft Connector Service – a series of busses which eliminate approximately 30,000 miles of travel/day. Our intra-campus shuttle service contains approximately 50 hybrid vehicles. Finally, Microsoft offers free public transportation passes to its employees, subsidizes vanpools, assists in carpool formation, and promotes bike/walk commuting.
* **Using Renewable Power**: Microsoft’s Mountain View, CA campus generates 480 kilowatts from 2,288 solar panels covering more than 31,000 square feet of rooftop, and offsets 6 % of that campus’s annual total energy consumption. Microsoft UK purchases 100 percent renewable electricity at the main office in Thames Valley Park. Our data center facility in Quincy, WA uses 100% renewable hydropower from the Columbia River Basin. In San Antonio, TX our data center facility will leverage the city’s environmental recycled water program and uses wind power as its primary energy source.
* **Efficient Building Design:** Newer Microsoft-owned buildings are designed to LEED standards and consume over 20 percent less energy than traditional buildings. At Microsoft’s new campus in Hyderabad, India, double-glazed windows and sunshades reduce reliance on air conditioning, lights turn off automatically, and a reservoir recycles rainwater to irrigate the 48-acre campus and run energy-efficient, water-cooled AC units.
* **Reducing Waste**: Microsoft began composting food waste from cafés, kitchenettes and conference rooms at its Redmond campus in July. Changes included: switching tableware, food containers and flatware to more eco-friendly compostable products, converting all cafés' fryer oil to biodiesel and implementing new waste management with more recycling options. It is estimated that 285,000 pounds of food per year will be composted at the Redmond campus.
* **Driving Increased Transparency:** Microsoft provides annual reports on our greenhouse gas emissions to the Carbon Disclosure Project, and was included in the CDP’s 2007 Climate Disclosure Leadership Index.
* **Beyond Compliance**: Microsoft is committed to adopting leadership practices in pollution prevention and eco-efficiency and sharing best practices with others.

**Technology Leadership and Innovation**:

Microsoft’s products help business, government and individuals conserve resources and address environmental challenges.

**Reducing the energy required to run software:**

* **Windows Vista®**: Vista features significant innovations to reduce computer energy consumption, including the ability to automatically scale the performance of the platform processor up or down, according to demand. It’s estimated that simply by placing PCs in sleep mode rather than leaving them on constantly, an organization could:
	+ Reduce greenhouse gasses by half a ton annually for each computer;
	+ Reduce greenhouse emissions by the equivalent of one car for each 10 computers;
	+ Reduce costs by $70,770 for every 1,000 computers.[[1]](#footnote-2)
* **Windows Server® 2008**: offers virtualization and power management settings that optimize energy efficiency.
	+ Tests reveal that Windows Server 2008 achieved power savings of up to 10 percent over Windows Server 2003 at comparable levels of throughput. In addition,
	+ Hyper-V makes it possible to consolidate servers onto a much smaller number of physical machines, significantly reducing power consumption without sacrificing performance.
* **Setting bold goals for the industry:** Microsoft, along with World Wildlife Fund, Intel, HP and others, is committed to a goal of reducing the IT industry’s carbon footprint by over 50 million tons within the next three years. We have collectively made this statement through the Climate Savers Computing Initiative, an organization for which, Microsoft serves on the board.

**Potential of software to monitor and address global environmental issues:**

* **Using technology to reduce travel:** Microsoft® unified communications (UC) solutions streamline communications and collaboration, reducing the need for business travel and commuting. Enterprise telephony (VoIP) and the integration of telephony and e-mail infrastructures with unified messaging, enables customers to collaborate across an integrated platform of e-mail, voicemail, calendaring, instant messaging, and conferencing. MS Research done in conjunction with Forrester Research shows UC can reduce travel by 10%, and as much as 30% when widely deployed across an organization.
* **Driving changes in transportation:** Microsoft has recently released Clearflow to 70 cities in the US. Based on sophisticated algorithms developed by MSR, Clearflow enables drivers to find routes based on least traffic, thereby significantly reducing time on roads and pollution.
* **Using software to drive scientific knowledge:** Microsoft Research scientists are working on ways to leverage technology innovation for environmental applications. Efforts include:
	+ Working to cut energy use in data centers and deploying sensors that can find “leaks” in the energy use of homes and offices.
	+ Developing novel computational tools and methods to predict and mitigate the rapid changes occurring in the earth’s life support systems
	+ Providing financial grants to external researchers and collaborating on specific environmental projects.
* **Visualizing the impact of climate change:**  Microsoft® Virtual Earth™ allows organizations to visualize data to gain better insight into global trends and patterns. Geomatics, Infusion, the Environmental Protection Agency (EPA), and other ISVs have developed innovative environmental solutions on the Virtual Earth Platform.
* **Helping customers manage their carbon footprint:**  Microsoft Dynamics’® Environmental Sustainability Dashboard for Microsoft Dynamics AX will allow small to medium sized businesses to better measure and manage their carbon footprint from greenhouse gas emissions.
* **Educating customers:**  Through MSN® Green, Microsoft provides consumers with a one-stop resource for the latest environmental news and tools that enable consumers to take action on the environment.
* **Removing the use of harmful substances:** In accordance with the precautionary principle, Microsoft prohibits the use of many harmful substances in its hardware manufacture, plans to phase out PVC and BFR where possible with safe and feasible alternatives by December 31st, 2010, has removed PVC from product packaging and has reduced the use of plastic clamshells by 70 percent.

**Global Partnerships**

Microsoft actively partners with leading organizations to drive global action on environmental sustainability. Some examples include:

* **Clinton Foundation**: Microsoft and the [Clinton Foundation](http://www.microsoft.com/presspass/press/2007/may07/05-17ClintonFoundationPR.mspx) are working to create a software plus services application to enable cities around the globe to measure, track and improve their greenhouse gas (GHG) emissions. The tool will enable cities to collaborate and share best practices on the most effective ways to reduce GHGs.
* **Climate Savers Computing Initiative**: Microsoft is a board member of this initiative, which is seeking to reduce global CO2 emissions from the operation of computers by 54 million tons a year (the equivalent of taking 11 million cars off the road).
* **European Environmental Agency**: Microsoft is helping the EEA to inform Europeans on changes to environmental conditions in real time - and empowering citizens to play their part in data gathering
* **Green Grid**: Microsoft is a board member of this global consortium of ICT companies dedicated to advancing energy efficiency in data centers and business computing ecosystems.
* **Equipment Refurbishers**: Through our Microsoft Authorized Refurbisher (MAR) programs and others such as Digital Pipeline (DP), Microsoft provides low-cost licenses for Microsoft software to help equipment refurbishers extend the useful life of over 500,000 computers per year.

*Microsoft believes in the potential of software and technology innovation to help people and businesses around the world to improve the environment.*

1. “[Windows Vista Energy Conservation](http://www.microsoft.com/whdc/system/pnppwr/powermgmt/VistaEnergyConserv.mspx),” Microsoft Corporation, October 2006. [↑](#footnote-ref-2)