



# Facilities Report

## 2011 Environmental Update



Apple carefully manages the environmental impact of its facilities, though they represent only 2 percent of its assessed GHG emissions. The remainder of the GHG emissions come from the production, transport, use, and recycling of products.

### Apple and the Environment

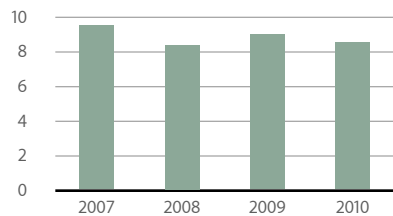
Since 2006, Apple has assessed the full life-cycle greenhouse gas (GHG) emissions associated with every product shipped and has been working continuously to reduce those emissions. We know that as much as 98 percent of our total emissions comes from the greenhouse gas emitted from the production, transport, use, and recycling of products. To find out more about the impact of our products, review Apple's Product Environmental Reports at [www.apple.com/environment/reports](http://www.apple.com/environment/reports).

Our corporate facilities represent 2 percent of our total GHG emissions. Consistent with our industry leadership role, Apple carefully manages the environmental impact of everyday operations around the globe and we make significant investments in energy efficiency and clean-technology solutions. Our environmental, health, and safety (EHS) management system helps ensure ongoing compliance with regulations and company standards across all Apple facilities.

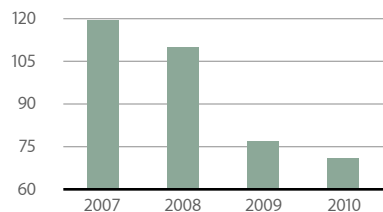
This report documents the environmental impact of Apple's worldwide facilities, including Apple Retail Stores, corporate R&D facilities, and operations and data centers; and it highlights the activities under way to reduce energy and water consumption and waste production.

The Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G3) were considered during the preparation of this report.

Electricity Usage (MWh/Employee)

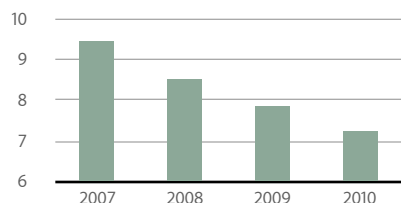


Natural Gas Usage (Therms/Employee)



Electricity and natural gas data is compiled from utility consumption data for sites owned and leased by Apple.<sup>1</sup>

GHG Emissions (Metric Tons CO<sub>2</sub>e/Employee)



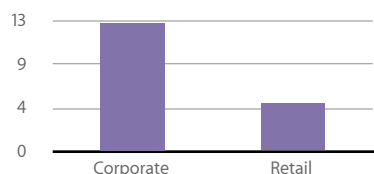
Emissions data is based on natural gas and electricity consumed at Apple-owned and leased facilities worldwide.<sup>2</sup>

### Energy Use

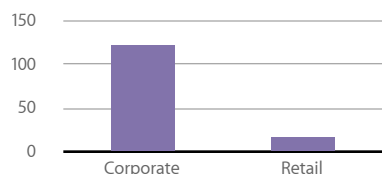
Managing electricity and natural gas consumption at Apple facilities is an integral part of our plan to reduce our carbon emissions footprint. Reducing electricity consumption also relieves strain on local power grids and helps protect Apple's business operations against rising utility costs. The goal of energy excellence at Apple includes a comprehensive set of programs and technologies that benefit not only our individual facilities around the globe but also the broader communities with whom we share power from the grid. These programs and technologies include:

- Working with the world's leading power utility companies to create and supply grid-level technologies that improve energy efficiency and increase the mix of renewable energy.
- Improving energy efficiency at the site level by continuously commissioning and modernizing heating, ventilation, and air-conditioning (HVAC) systems to state-of-the-art high-efficiency units, and retrofitting lighting to high-efficiency and LED lighting systems with motion sensors for automatic dim control and shutoff.
- Installing intelligent control systems to optimize the performance of ventilation and cooling systems against ambient weather conditions.
- Retrofitting buildings with special reflective window and roof coatings to protect internal spaces from the warming effects of the sun, thereby reducing the demand for additional cooling.
- Using energy-efficient Apple computers, all of which far exceed the strict requirements of ENERGY STAR.

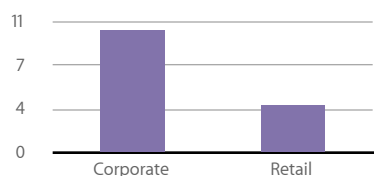
Electricity Usage (MWh/Employee)



Natural Gas Usage (Therms/Employee)

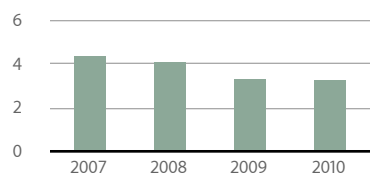


GHG Emissions (Metric Tons CO<sub>2</sub>e/Employee)



Corporate is defined as all non-retail store buildings, including offices. Retail is defined as all retail stores.

GHG Emissions—Employee Travel (Metric Tons CO<sub>2</sub>e/Employee)



Based on annual distances covered by Apple's U.S. auto fleet, worldwide air travel, and the commute miles traveled by Apple employees worldwide assuming a 2-liter gas engine auto for daily commutes.<sup>4</sup>

- Using extensive power monitoring and modeling capabilities to map our energy use throughout buildings. For example, in a data center environment, Apple is able to perform real-time trending and analytics to constantly regulate power and cooling operations for optimized efficiency. In addition, by regulating the energy consumption during peak hours, we help reduce the load and emissions from the utility companies.

These are some of the initiatives that have helped balance utility costs and our carbon footprint with the increased demand for energy associated with our expanding business. While total energy consumption grew approximately 14 percent in 2010, Apple emissions increased by only 9 percent year over year from 2009 to 2010. Total 2010 energy consumption included 371 million kWh of electricity and 3 million therms of natural gas.

Applicable GRI indices: EN3, EN5, EN7

## Renewable Energy

For over 10 years, Apple has participated in the purchase of renewable energy sources in locations around the globe. Today, facilities located in Austin, Texas; Elk Grove, California; and Cork, Ireland are powered by 100 percent renewable energy resources.<sup>3</sup> In addition, in November 2010, we added onsite biogas-powered fuel cells to offset the power requirements at our Cupertino, California, campus. The fuel cells will help Apple avoid more than 1.2 million kilograms of CO<sub>2</sub>e emissions per year. These programs have converted more than 48 million kWh's worth of consumption per annum to local renewable sources, which represents more than 13 percent of Apple's facility-related electricity consumption.

Approximately 27.5 million kilograms of CO<sub>2</sub>e emissions were avoided through the use of renewable energy programs in fiscal 2010. Apple will continue to look at adding renewable energy to our energy portfolio.

Applicable GRI index: EN16, EN17, EN18

## Transportation

Apple has established commuter transit programs for each facility to minimize the environmental impact of home-to-work travel. The Apple U.S. Commute Alternative program provides incentives for using public transportation and reducing the use of single-occupancy vehicles. For example, Apple provides a transit subsidy for all U.S. employees, up to US\$100 per month, and encourages carpooling between commute locations. For our largest facility, located in Cupertino, California, Apple has reduced single-occupancy car use by providing employees with numerous shuttle options, including free bus service from train stations as well as bus service from local cities.

Each day, over 900 employees take advantage of our free biodiesel commute buses. We estimate that our commute programs have eliminated the CO<sub>2</sub>e equivalent of 1,906 single-occupancy cars from the roads each day— 10,135 metric tons of CO<sub>2</sub>e avoided per year. In fiscal 2010, total emissions for air travel, U.S. automobile fleet, and employee commute were 135,040 metric tons of CO<sub>2</sub>e.

Applicable GRI index: EN29

Water Usage (m<sup>3</sup>/Employee)



Per-employee use is based on a representative sample of water use in primary U.S. facilities.

## Water Use

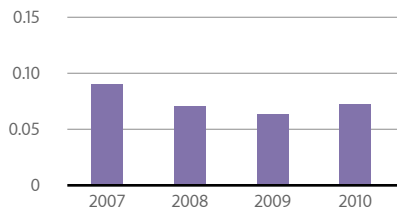
Apple operations are not water intensive. Our water use is typically for sanitary and landscape purposes in Apple facilities worldwide.

Apple Austin has installed a sophisticated irrigation system that monitors weather conditions and soil moisture to adjust the watering schedule for landscaping, based on a combination of programmed instructions and actual conditions onsite. This system upgrade is expected to save up to 50 percent of the water used for landscaping annually.

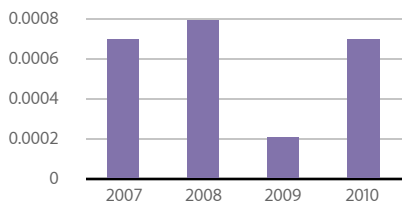
Apple's Sacramento and Cupertino sites have implemented xeriscaping (drought-tolerant landscaping) and drip irrigation to reduce water usage. Apple will continue to look at ways to reduce its consumption of water. In fiscal 2010, Apple used 800,651 cubic meters total.

Applicable GRI indices: EN8, EN21

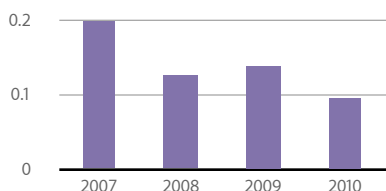
Solid Waste (Metric Tons/Employee)



Hazardous Waste (Metric Tons/Employee)



Recycled Material (Metric Tons/Employee)



Waste and recycling data is based on all Apple sites, including Apple Retail Stores.

## Waste and Recycling

Apple does not generate a significant amount of solid or hazardous waste from its business operations. To minimize the environmental impact of the small amount of waste we produce, we've created robust recycling and composting programs.

In 2007, Apple's Cupertino facilities established a composting program in the company cafeteria to divert food waste from landfills. As part of the composting program, a majority of our disposable tableware and containers were transitioned to biodegradable or compostable alternatives. This program, developed and promoted by employees, successfully diverts what would otherwise be solid waste toward a new environmentally beneficial use.

In 2010, the amount of solid waste created by Apple was 3,031 metric tons total. Hazardous waste generated was 28 metric tons total. The amount of material recycled as part of everyday operations was 3,826 metric tons total.

In addition to the recycling of solid waste created in everyday operations, Apple offers and participates in various product take-back and recycling programs in 95 percent of the regions in which Apple products are sold. For more information on how to take advantage of these recycling programs, visit [www.apple.com/environment/recycling](http://www.apple.com/environment/recycling).

Applicable GRI indices: EN2, EN24

## Environmental, Health, and Safety Policy Statement

Apple is committed to protecting the environment, health, and safety of our employees, customers, and the global communities in which the company operates.

We recognize that by integrating sound EHS management practices into all aspects of our business, we can offer technologically innovative products and services while conserving and enhancing resources for future generations.

Apple strives for continuous improvement in its EHS management systems and in the environmental quality of our products, processes, and services.

## Guiding Principles

Meet or exceed all applicable environmental, health, and safety requirements. We will evaluate our EHS performance by monitoring ongoing performance results and conducting periodic management reviews.

Adopt our own standards to protect human health and the environment when laws and regulations do not provide adequate controls.

Support and promote sound scientific principles and fiscally responsible public policies that enhance environmental quality, health, and safety.

Advocate the adoption of prudent environmental, health, and safety principles and practices by our contractors, vendors, and suppliers.

Communicate environmental, health, and safety policy and programs to Apple employees and stakeholders.

Design, manage, and operate our facilities to maximize safety, promote energy efficiency, and protect the environment.

Strive to create products that are safe in their intended use, conserve energy and materials, and prevent pollution throughout the product life cycle, including design, manufacture, use, and end-of-life management.

Make sure that all employees are aware of their roles and responsibilities in fulfilling and sustaining Apple's environmental, health, and safety management systems and policy.

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## References

1. The Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G3): [www.globalreporting.org/ReportingFramework/G3Online](http://www.globalreporting.org/ReportingFramework/G3Online)

2. More information on Austin green energy: [www.austinenergy.com/index.htm](http://www.austinenergy.com/index.htm)

3. Electricity consumption: [www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed\\_tables\\_2003/2003set15/2003excel/c20a.xls](http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set15/2003excel/c20a.xls)

4. Natural gas consumption: [www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed\\_tables\\_2003/2003set16/2003excel/c30a.xls](http://www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set16/2003excel/c30a.xls)

## For More Information

For more details about Apple's environmental practices, visit [www.apple.com/environment](http://www.apple.com/environment).

<sup>1</sup>Over 80 percent of the data for electricity and gas consumption is from actual use data. For leased sites where actual use is not tracked by Apple, consumption figures are estimated using the energy intensity calculation tool provided by the U.S. Department of Energy. Climate zone comparisons were used to model non-U.S. site consumption patterns against the DOE calculation tool.

<sup>2</sup>Differences in the carbon footprint of local power grids are accounted for in the assessment.

<sup>3</sup>Apple purchases renewable energy under contract and does not use or purchase biologically sequestered carbon.

<sup>4</sup>Emissions from employee air travel are calculated from flights taken by all employees worldwide. Aircraft emissions are assessed in accordance with distance conversion factors provided by the World Resources Institute and the U.S. Environmental Protection Agency Climate Leaders Guidance.

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