Apple Facilities

Environmental Footprint Report

Fiscal 2012
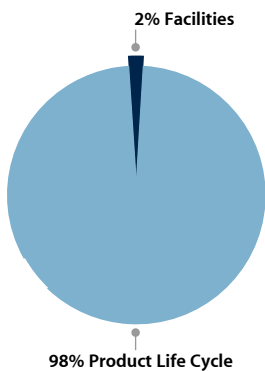
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Apple and the Environment

Apple Total Carbon Footprint—2012

2% Facilities

98% Product Life Cycle

The vast majority of our carbon emissions comes from the manufacturing, transportation, use, and recycling of our products. The rest—2 percent—comes from our data centers and other facilities.

GHG Emissions (Metric Tons CO₂e/Employee)
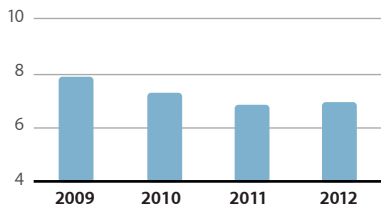
Emissions data includes natural gas and electricity consumed at Apple-owned and leased facilities worldwide, in addition to employee commute, fleet vehicles, and air travel.[1,2]

Since 2006, Apple has reported our environmental impact comprehensively by assessing the full life-cycle greenhouse gas (GHG) emissions associated with every product and service we offer. We do this because greenhouse gas emissions have an impact on the planet's balance of land, ocean, and air temperature.

We know the vast majority of GHG attributable to Apple comes from the product life cycle, which includes the design, manufacture, transportation, use, and recycling of our products. That's why we design our products to be both material and energy efficient, free of toxic substances, and made of highly recyclable materials.

While our facilities represent just 2 percent of our total carbon footprint, we apply the same rigor in managing this aspect of our carbon footprint as we do in reducing the environmental impact of our products. In fact, the carbon footprint associated with our data centers is counted as part of the facilities portion of our greenhouse gas reporting. Our data centers provide services such as the iTunes Store, App Store, iMessage, and many more, which we consider an integral part of our product experience.

This report documents the environmental impact of our facilities and our efforts to reduce their impact. In particular, this report documents:

• How we generate and use energy across our worldwide facilities including our corporate offices, data centers, and retail stores by highlighting our fiscal 2012 accomplishments

• Our initiatives across all our facilities, including water use, waste and recycling, transportation, and procurement

The Global Reporting Initiative (GRI) Sustainability Reporting Guidelines version 3.1 were considered during the preparation of this report. To learn more about our GRI reporting, review our GRI Index at www.apple.com/environment/reports/gri-index.html.

To learn more about other ways Apple reduces our greenhouse gas emissions or other environmental impact, refer to the following:

• To learn about the life-cycle impact on the environment of Apple products, review our Product Environmental Reports at www.apple.com/environment/reports.

• To learn about our product recycling program, review our Apple Recycling Program at www.apple.com/recycling.

• To learn about Apple's Supplier Responsibility—including our work to address labor and human rights, worker health and safety, and environmental impact—review our annual report at www.apple.com/supplierresponsibility.

Managing Energy at Apple Facilities

Apple Energy Policy

At Apple, managing the energy required to power our data centers, retail stores, and other facilities worldwide is another important part of how we are reducing the environmental impact we have on the world. That's why for more than 10 years, Apple has purchased low-carbon, 100 percent renewable energy for our facilities located in Austin, Texas; Elk Grove, California; Cork, Ireland; Munich, Germany; and most Apple facilities across Australia.[3] We also have applied for as much renewable energy as is allowed by the California Direct Access program, which powers our Cupertino Infinite Loop headquarters with 100 percent renewable energy. And at our data center in Maiden, North Carolina, we have built and have turned on the nation's largest end user–owned, onsite solar photovoltaic array, and completed construction on the largest non-utility fuel cell installation operating anywhere in the country.

To guide our effort in managing the energy that powers our facilities, we have created a three-tiered strategy. Our primary focus is to achieve a net zero energy policy. In other words, to use 100 percent renewable energy. The first tier of this strategy is to design and operate our facilities to be as energy efficient as possible. To this end, we have optimized energy use in existing facilities and designed new facilities from the ground up with energy efficiency as a fundamental principle. One example is our Maiden, North Carolina, data center, which is the only data center facility of its size and type to have earned LEED Platinum certification. Reducing the amount of energy we require to operate our facilities is the most basic and important thing we can do.

Second, to meet our reduced energy needs, we generate clean, renewable energy from projects we develop on our own. Not only have we built the largest non-utility solar array and largest non-utility fuel cell installation in the country, but we've also installed solar arrays and fuel cells for our Cupertino, California, facilities.

Third, where it's not feasible to create all of our own energy, we fulfill the remaining needs with grid-purchased renewable energy, preferably delivered to our facilities or onto the same electric grid in which our facilities are located. Here we have been exceptionally rigorous on two fronts: First, in ensuring that grid-purchased renewable energy be from newer projects, with the objective of providing investment incentives to local providers. Second, to secure renewable energy from the grid in the region in which we require it. In cases where we aren't able to purchase renewable energy in this way—due to local regulations—Apple will purchase Renewable Energy Credits (RECs) from market sources, which we then register and are careful to retire.

The implementation of our energy strategy results in an energy supply mix unique to each location. In all cases, though, Apple's goal is to meet our energy needs with 100 percent clean, renewable energy that reduces GHG emissions and other environmental impacts.

Apple sites powered by 100% renewable energy

100% Renewable Energy
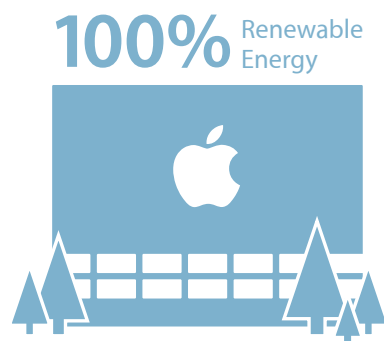
Apple corporate
• Austin, TX
• Cupertino, CA (HQ)
• Elk Grove, CA
• Cork, Ireland
• Munich, Germany
• Australia (most Apple facilities)

Data centers
• Maiden, NC
• Newark, CA
• Prineville, OR

Renewable Energy Principles

As Apple seeks renewable energy for our facilities around the globe, we work within the context of the local geographic region and its resources, and through the local regulatory requirements. Because these differ at every site, we have developed three principles to guide our effort: displacement, additionality, and accountability.

The principles of displacement and additionality guide our renewable energy generation. We want to make sure not only that we displace dirtier forms of energy in the same grid region in which we operate, but also that any clean renewable energy we create is beyond (i.e., in addition to) that which is already mandated by local legislation. The goal is to ensure that our clean energy generation makes a difference in communities where we do business, thus reducing the carbon footprint of grid electricity from region to region. Of course, Apple always retires the renewable energy credits created by our onsite renewable energy generation, so they cannot be used by other energy suppliers or consumers.

The principle of accountability refers to the rigor we apply in measuring and reporting our energy use to ensure that our reporting is accurate and that there is no double counting. In other words, that only Apple has consumed these renewable resources. Therefore, wherever possible, we use the same renewable energy tracking systems that utilities use to demonstrate their compliance with renewable energy mandates. These systems also enforce measurement and reporting accuracy standards for renewable generators. For instance, when we purchase energy, we hand-pick the generation facilities, biasing our selections toward newer projects to help stimulate market growth, and we use long-term contracts to sustain the resource over time.

The result of our renewable energy policies has yielded significant progress. Over the last three years, we have increased our use of renewable energy at our global corporate facilities from 35 percent to 75 percent.

Below, we detail the progress we've made in each of our major facilities around the globe to reduce the carbon footprint associated with their use.

Cupertino-Area Corporate Facilities, California

We are applying our three-tiered energy strategy to our corporate headquarters located in Cupertino, California.

Energy Efficiency

In 2012, Apple completed a two-year energy overhaul of our primary Infinite Loop Campus in Cupertino. The results were substantial, with a combined electrical and natural gas energy savings of over 30 percent at a time when occupancy increased by more than 12 percent.

This was achieved through a combination of equipment upgrades and control system improvements.

Renewable energy use at Apple corporate facilities worldwide
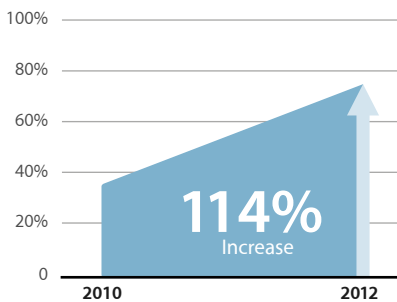
In our pursuit of a net zero energy policy, Apple has increased our use of clean, renewable energy by 114% since 2010 at major Apple corporate facilities.

Equipment upgrades. HVAC and lighting equipment was replaced with modern, high-efficiency units, including:

- New high-efficiency air-conditioning chillers with frictionless magnetic bearings, for quieter, more efficient operations, and the ability to operate more efficiently at the "low load" conditions common to the mild Bay Area climate, resulting in the number of chillers being reduced by half

- New state-of-the-art hot-water boilers, able to operate efficiently down to 5 percent of their rated output

- "Smart" garage exhaust fans that change speed based on carbon monoxide levels in the garage. This project alone is expected to reduce energy consumption by 548,000 kWh/year

- Upgrading outdoor and garage lighting fixtures to high-performance induction and LED technology, increasing efficiency and equipment life

Control systems. Retro-commissioning studies identified efficiency savings in our existing HVAC systems, including:

- Installing variable-speed controls to maximize equipment efficiency as HVAC systems respond to changing conditions

- Controlling our variable-speed equipment most effectively to ensure cooling air is delivered at the most optimum temperature and pressure

- Increased use of outside air to cool equipment on the moderate days common to the Bay Area climate, up to 80 percent of the time

- Further refined scheduling to distinguish labs and critical 24/7 loads from other spaces

Results. The equipment upgrades and control system improvements at our Infinite Loop buildings resulted in annual electrical energy savings of 5.3 million kWh and annual gas energy savings of 261,000 therms. We expanded lessons learned from our Infinite Loop buildings across all of our Cupertino facilities and, over the last two years, we achieved:

- 12 million kWh in energy savings

- Over 500,000 therms in natural gas savings

- Taken together, the CO_2e emissions avoided by these savings equate to removing 2,200 passenger vehicles from the road or the electricity to power 1,600 homes.[4]

Included in these savings are results from our new "efficient growth" program where we perform detailed energy modeling and life-cycle cost analysis on newly acquired buildings. This effort resulted in expected annual energy savings of 3.7 million kWh and 28,000 therms, when compared to minimal compliance with California's energy code.

Apple-Owned Renewable Energy Projects

Our onsite, Apple-owned renewable energy projects in Cupertino include:

- A 500-kilowatt biogas-powered fuel cell project currently supplying approximately 4 million kWh annually of clean, renewable electricity that helps us avoid more than 1,200 metric tons[5] of CO_2 equivalent (CO_2e) emissions.

- A rooftop solar photovoltaic system for our Vallco Parkway facility that, in 2013, will produce a peak output of 550 kW and an annual production of approximately 840,000 kWh.

- A rooftop solar photovoltaic system for our Homestead facility that, in 2013, will produce a peak output of 180 kW and an annual production of approximately 270,000 kWh.

Infinite Loop Campus Energy Consumption

Employees   Annual Energy (MMBtu)
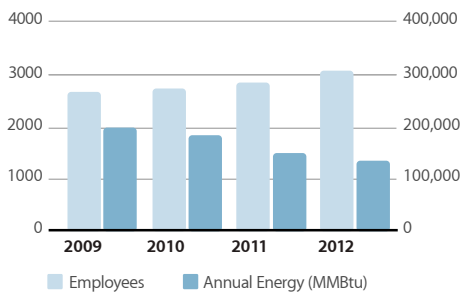
These two facilities are key examples of using the three-tiered approach of efficiency, onsite renewable energy, and grid-purchased renewable energy to achieve our net zero goal.

All together, CO_2e emissions avoided by these three projects equate to removing 750 passenger vehicles from the road or the electricity to power 540 homes for one year.[4]

Grid-Purchased Renewable Energy

California allows the direct wholesale purchase of renewable energy through a program called Direct Access. In 2011, we were granted regulatory approval to procure renewable energy for our Cupertino-area facilities through this program. The program is limited in capacity and Apple worked with the local utility to phase in our load over two years. Early in 2012, we began supplying about half the facilities, including our Cupertino headquarters, with 100 percent renewable energy. Early in 2013, we began supplying the remaining facilities with 100 percent renewable energy.

Our portfolio of renewable energy sources serving our Cupertino-area facilities includes a Monterey, California, landfill gas-to-power project, a California geothermal project, and a California wind project.

At our Cupertino-area facilities, we've focused first on reducing the load in the heart of our operations, then supplying what remains with clean energy.

Maiden, North Carolina, Data Center

To meet the energy needs of the Maiden data center with a renewable energy mix, we embarked on an industry-leading program combining energy efficiency with Apple-owned renewable energy projects and grid-purchased renewable energy.

Energy Efficiency and Green Building

Our Maiden data center is exceptionally energy efficient and has earned the coveted LEED Platinum certification from the U.S. Green Building Council. We know of no other data center of comparable size that has achieved this level of LEED certification.

The energy-efficient design elements of the Maiden facility include:

- A chilled water storage system to improve chiller efficiency by transferring 10,400 kWh of electricity consumption from peak to off-peak hours each day
- Use of "free" outside air cooling through a waterside economizer operation during night and cool-weather hours, which, along with water storage, allows the chillers to be turned off more than 75 percent of the time
- Extreme precision in managing cooling distribution for cold-air containment pods, with variable-speed fans controlled to exactly match air flow to server requirements from moment to moment
- Power distributed at higher voltages, which increases efficiency by reducing power loss
- White cool-roof design to provide maximum solar reflectivity
- High-efficiency LED lighting combined with motion sensors
- Real-time power monitoring and analytics during operations
- Construction processes that utilized 14 percent recycled materials, diverted 93 percent of construction waste from landfills, and sourced 41 percent of purchased materials within 500 miles of the site

Maiden data center

Apple's Renewable Energy Projects at Maiden

In 2012, we built the nation's largest end user–owned, onsite solar photovoltaic array on land surrounding the data center. This 100-acre, 20-megawatt (MW) facility has an annual production capacity of 42 million kWh of clean, low-carbon, renewable energy.

Late last year, we decided to double our capacity by beginning construction on a second 20-MW solar photovoltaic facility nearby that should be operational near the end of 2013.

In 2012, we also worked with the North Carolina Utilities Commission (NCUC) to develop state-specific rules under which fuel cells supplied by biogas from landfills and other renewable sources can be used to generate renewable energy. Consistent with these rules, we built an onsite 4.8-MW fuel cell installation fueled by landfill biogas that provides more than 40 million kWh of 24/7 baseload renewable energy annually.

In early 2013, we expanded this installation to 10 MW, which makes it the largest non-utility fuel cell installation operating anywhere in the country, supplying more than 83 million kWh annually.

Apple is also working with the Nicholas Institute for Environmental Policy Solutions at Duke University to help develop the biogas market within North Carolina. This is an example of Apple driving improvements in renewable energy availability in regions where we operate.

Energy from these projects displaces dirtier forms of energy, such as coal, from serving our data center load. The energy will be tracked in the North Carolina Renewable Energy Tracking System, overseen by NCUC, and will be additional to renewable energy that the utilities companies must supply for their state Renewable Portfolio Standard (RPS) requirements. We will retire the renewable energy credits from our facilities, so they cannot be sold or put to any other use.

Keeping Pace

The renewable energy capacity that we've already built in North Carolina has an annual capacity of 125 million kWh, which is in excess of what our Maiden data center consumed (104 million kWh) during the entirety of our last full year of operation, fiscal 2012.

We expect our data center load to grow, so our work is not yet done. In late 2013, after our second 20-MW solar photovoltaic facility comes online, we will have an installed annual capacity of 167 million kWh from local Apple-owned renewable energy projects to help meet the growing needs of our data center. CO_2e emissions avoided by these projects equates to removing 24,500 passenger vehicles from the road or the electricity needed to power 17,600 homes for one year.[4]

Grid-Purchased Renewable Energy

North Carolina does not permit Direct Access; therefore, our grid-purchased option is to use an in-state partner to procure local renewable energy credits. Apple is partnering with NC GreenPower—an independent, nonprofit organization created by the State Assembly through the NCUC tasked with increasing renewable energy production within the state—to supply our data center with renewable energy credits (RECs). All the RECs acquired from NC GreenPower are Green-e Energy certified, eligible for the state's RPS, and generated within North Carolina.

One of our largest projects with NC GreenPower is helping the local landfill in Catawba County (located just 3 miles from the Maiden data center) to generate electricity using its waste methane gas.

Maiden solar photovoltaic array

To date, we have procured over 175 million kWh of RECs from NC GreenPower, which, when combined with production from our Apple-owned photovoltaic and fuel cell projects, covers the data center's full load with renewable energy since its first day of operation in October 2010.

Newark, California, Data Center

Early in 2012, we were granted regulatory approval to procure renewable energy directly from the wholesale market for our Newark, California, data center through California's Direct Access program. Beginning in January 2013, we have been serving the data center with 100 percent clean, renewable energy, sourced mostly from California wind.

Prineville, Oregon, Data Center

Our newest data center, currently under construction in Prineville, Oregon, will be every bit as environmentally responsible as our Maiden data center. At Prineville, we have access to enough local renewable energy sources to completely meet the needs of the facility. To achieve this goal, we're working with two local utilities as well as a number of renewable energy generation providers to develop and purchase power from local wind, solar, and micro-hydro resources. The micro-hydro projects will generate power from water flowing through irrigation canals, which are already part of the agricultural framework of Oregon.

Oregon allows the direct wholesale purchase of renewable energy through Direct Access, and Apple is using this program to opt out of the default grid mix and access local renewable energy sources directly.

Reno, Nevada, Data Center

Our next data center, to be located in Reno, Nevada, will also be every bit as environmentally responsible as our Maiden data center. We will be making use of the excellent natural solar radiation and geothermal resources in Nevada to completely meet the energy needs of our data center.

## Other Apple Facilities Worldwide

For nearly 10 years, we've purchased 100 percent renewable energy for our operations center in Austin, Texas. Since then, we've added our operations centers in Elk Grove, California, and Cork, Ireland, as well as our facility in Munich, Germany. In 2012, we added most facilities across Australia to our list of sites procuring 100 percent renewable energy.[3] Energy purchased for these sites comes from local or regional renewable energy projects.
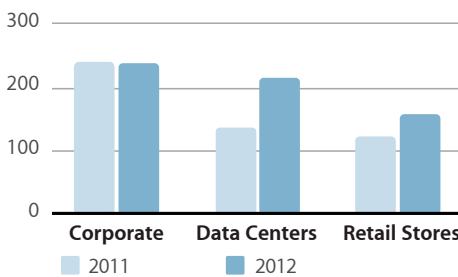
Energy Consumption and Renewable Energy Disclosure

Electricity Usage (MWh/Employee)
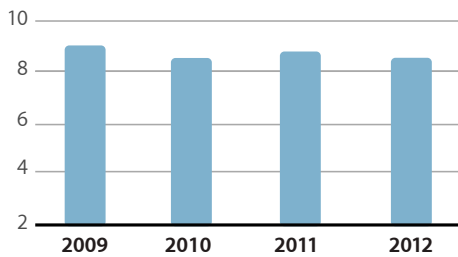
Natural Gas Usage (Therms/Employee)
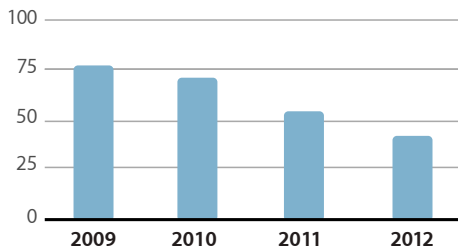
Electricity Usage By Business Unit (M kWh)

Electricity and natural gas data is compiled from utility consumption data for sites owned and leased by Apple.[1]

Managing electricity and natural gas consumption at Apple facilities is an integral part of our process to reduce our GHG emissions.

Fiscal 2011

Across our worldwide facilities in fiscal 2011, energy consumption included 493 million kWh of electricity and 3 million therms of natural gas, which equates to 216,628 CO_2e.[6] For our global portfolio, approximately 30 million kilograms (30,000 metric tons)[5] of CO_2e emissions were avoided through the use of renewable energy programs.

Fiscal 2012

Worldwide facilities energy consumption included 608 million kWh of electricity and 3 million therms of natural gas in fiscal 2012, which equates to 271,746 CO_2e.[6] Apple avoided approximately 93 million kilograms (93,000 metric tons)[5] of CO_2e emissions through renewable energy programs. The avoided emissions are equivalent to removing 19,300 passenger vehicles from the road, or the electricity needed to power 13,900 homes for one year.[4]

Worldwide Facility Electricity and GHG Scope Summary

Location	FY 11 Electricity (Millions kWh)	Scope 1 CO_2e (tonnes)	Scope 2 CO_2e (tonnes)	Total Scope 1 & 2 CO_2e (tonnes)	FY 12 Electricity (Millions kWh)	Scope 1 CO_2e (tonnes)	Scope 2 CO_2e (tonnes)	Total Scope 1 & 2 CO_2e (tonnes)
Corporate Offices	235	14,425	82,183	96,608	**232**	**13,159**	**84,611**	**97,770**
Cupertino, CA	127	11,007	39,428	50,435	130	10,949	39,457	50,406
Elk Grove, CA	26	556	7,930	8,486	22	560	6,952	7,512
Austin, TX	18	45	10,139	10,184	20	59	10,635	10,694
Cork, Ireland	10	804	4,598	5,402	10	715	4,801	5,516
Singapore	6	—	3,243	3,243	9	32	4,946	4,978
Other Offices	48	2,013	16,845	18,858	40	845	17,819	18,664
Data Centers	138	—	51,651	51,651	**217**	**146**	**87,732**	**87,878**
Maiden, NC	44	—	22,663	22,663	104	146	52,977	53,123
Newark, CA	93	—	28,988	28,988	111	—	33,492	33,492
Prineville, OR	—	—	—	—	2	—	1,263	1,263
Retail Stores	122	2,600	65,769	68,369	**159**	**2,812**	**83,285**	**86,097**
Total	**493**			**216,628**	**608**			**271,746**

Applicable GRI indicators: EN3, EN4, EN5, EN16, EN17, EN18

Water Use

Water Usage (m³/Employee)
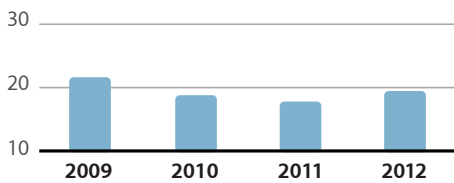
Water data is compiled from utility consumption data for sites owned and leased by Apple.

Apple continues to look for ways to reduce our water consumption. Our water use is primarily for office building cooling, landscaping, and sanitary purposes.

Building Cooling

Cooling tower evaporation results in significant water loss; therefore, we increase tolerance for total dissolved solids to minimize water use while maintaining comparable cooling performance where possible.

Our Maiden, North Carolina, data center employs an innovative cooling system that reuses water 35 times, resulting in a 20 percent reduction in overall water consumption. The data center also uses a rainwater-supplied system for onsite landscape irrigation, further reducing overall water consumption. This system is being evaluated for use at other sites.

Landscape Irrigation

Apple has installed sophisticated irrigation systems at facilities in Austin, Texas, and Cupertino, California, that monitor local weather conditions and soil moisture. This allows us to adjust our landscape irrigation schedule to avoid unnecessary watering, resulting in a 40 percent reduction in landscape watering. Furthermore, our Elk Grove and Cupertino sites use xeriscaping (drought-tolerant landscaping) and drip irrigation to further reduce water use.

Other water conservation measures include:

- Converting overhead spray to drip irrigation, bubblers, and matched precipitation rate rotators to increase watering efficiencies while reducing water output
- Smart irrigation controllers using weather-based irrigation management tools to avoid overwatering
- Mulch application to minimize evaporation and runoff, moderate soil temperatures year-round, and slow-release nutrient feed from breakdown of organic material
- Development of bio-retention areas to divert stormwater runoff from storm drains to landscape, to reduce winter supplemental irrigation demand
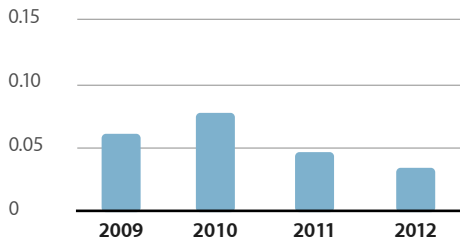
Sanitary

Leveraging what was learned from bathroom faucet and fixture modifications at other Apple facilities, we made similar modifications at our Cupertino facilities and reduced water use per employee by 5 percent in 2012. Furthermore, drinking water filtration systems installed in our break rooms at headquarters help to reduce GHG emissions, energy use, and material associated with the use of bottled water.

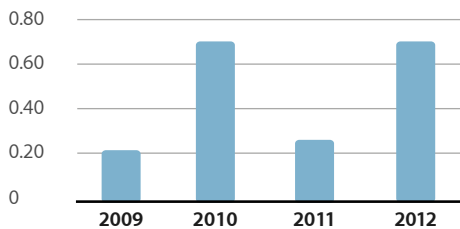In 2012, Apple used 1.4 million cubic meters of water.

Applicable GRI indicators: EN8, EN10
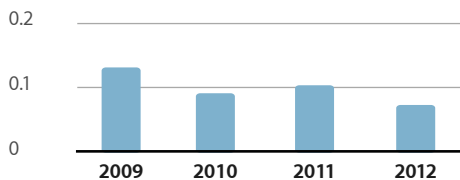
Waste and Recycling

Solid Waste (Metric Tons/Employee)

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

Compost

Hazardous Waste (Metric Tons/Employee)

In 2007, Apple's Cupertino facilities established a composting program in our 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 an environmentally beneficial use. The food and composting waste is collected and processed by a vendor who makes the compost available to commercial farms and to the public. Since 2007, we've diverted more than 1,000 metric tons of waste from landfills through composting. As a result of the program's success in Cupertino, the program was expanded to the Austin campus this year.

Recycled Material (Metric Tons/Employee)

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

Recycling

Apple promotes recycling at all of its worldwide facilities by providing materials-specific recycling bins in convenient locations throughout buildings. Up to five materials-specific bins are placed at each location: one each for plastic, glass, paper, compostable materials, and other refuse. This allows us to efficiently sort, measure, and prepare these materials for recycling and/or disposal. In 2012, 5,200 metric tons of materials were recycled as part of our everyday operations.

Apple has a robust hazardous waste program for the small amount of waste that we produce (mostly from research and development). We ensure that any materials that may have a risk to the environment are treated and disposed of in the proper manner.

In 2012, the total amount of solid waste created by Apple facilities was 2,200 metric tons. This represents a year-over-year reduction of 9 percent. The total amount of hazardous waste generated in 2012 was 56 metric tons.

In addition to the recycling of solid waste created in everyday operations, Apple offers and participates in various product take-back and product 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.

Applicable GRI indicators: EN22, EN24, EN27

Transportation

GHG Emissions — Employee Travel
(Metric Tons CO_2e emissions/Employee)
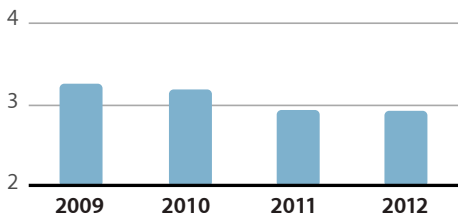
Based on annual distances covered by Apple's auto fleet, worldwide air travel, and the commute miles traveled by Apple employees worldwide assuming a 2-liter gas engine auto for daily commutes.[2]

Employee Commute

Apple has established commute programs for our facilities to minimize the environmental impact of employee travel between work and home. Our commute programs reduce traffic, smog, and GHG emissions by providing incentives for biking, using public transportation, and reducing the use of single-occupancy vehicles. For example, Apple provides a transit subsidy for all U.S. employees of up to US$100 per month and encourages carpooling through measures that include preferred parking spaces for carpool vehicles. Over 11,000 employees participated in our transit subsidy program in 2012. At our main facility in Cupertino, California, Apple has reduced single-occupancy vehicle use by providing employees with numerous shuttle options including free bus service to and from local cities and nearby train stations. Each day, over 1,600 employees take advantage of these free biodiesel commute buses, an increase of 500 employees from 2011. Furthermore, electric vehicle charging stations are available, free of charge, to our Cupertino employees. Employee usage of the charging stations helped Apple avoid 102,500 kilograms of CO_2e emissions in 2012.

Intercampus

Employees have access to a shared bike program, car-share vehicles, and intercampus shuttles to travel between buildings at our Cupertino campus. Within the first two months after the launch of the shared bike program in July 2011, over 2,000 employees registered with the program. At the end of 2012, more than 4,000 employees participated in the program and they make more than 6,500 trips every month.

Apple Business Use Vehicles

Over half of Apple's fleet vehicles are hybrids, and we continue to integrate hybrid and alternative fuel vehicles into out fleet where available. Our European fleet program sets strict emissions standards of less than 165g CO_2e/km for every vehicle. This helps Apple minimize our GHG emissions as we serve our customers around the world.

Business Travel

Apple employees are also encouraged to reduce the environmental impact of their business travel. Apple provides employees traveling on business with hybrid rental vehicles where available. This has already helped Apple avoid 1,800 kilograms of CO_2e since the start of the program in July 2012. Because employee air travel generates significant annual GHG emissions, we installed video teleconferencing equipment at most of our facilities around the world.

In 2012, Apple's total GHG emissions from employee commute, fleet vehicles, and business travel were 214,000 metric tons of CO_2e. In 2011, the number was 161,000 metric tons.[5]

Applicable GRI indicators: EN7, EN17, EN18, EN29

Procurement

As part of reducing our environmental impact, Apple seeks to procure environmentally friendly products and services for use in our operations. Some examples of our efforts in this area include:

- More than 98 percent of our U.S. office consumables contain post-consumer recycled content (PCR).

- Between 2010 and 2012, we purchased 42 percent more paper products that include at least 30 percent Forest Stewardship Council® (FSC) certified PCR.

- We procured 100 percent recycled paper products for our janitorial supplies.

- The majority of the food served in our Cupertino-area employee cafeterias was procured from sources within 100 miles.

- We avoided approximately 630,000 kilograms of CO_2e emissions in 2012 by encouraging Cupertino-area employees to use onsite services such as dining, fitness center, postal kiosks, automated teller machines, and haircuts.

We are also implementing processes to reduce our material consumption. For example, our European facilities piloted an on-demand print solution that saves paper and provides an added level of security for printed jobs. This on-demand print process uses a badge-controlled printing system, where a print job sent by an employee to a printer is printed only when the employee scans his or her badge on the printer's badge reader. In 2012, this system helped our European facilities avoid printing more than 230,000 pages. Apple is looking at expanding this on-demand system to other regions.

Applicable GRI indicators: EN5, EN7, EN18

Environment, Health, and Safety Policy

Apple is committed to protecting the environment, health, and safety (EHS) 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.

References

The Global Reporting Initiative (GRI) Sustainability Reporting Guidelines (G3.1): www.globalreporting.org/reporting/latest-guidelines/g3-1-guidelines/Pages/default.aspx

U.S. Green Business Council (USGBC) LEED certification: http://www.usgbc.org/DisplayPage.aspx?CategoryID=19

More information on Austin green energy: www.austinenergy.com/index.htm

Electricity consumption: www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set15/2003excel/c20a.xls

Natural gas consumption: www.eia.doe.gov/emeu/cbecs/cbecs2003/detailed_tables_2003/2003set16/2003excel/c30a.xls

Apple's facilities emissions are third-party verified by Bureau Veritas (BV), a global leader in conformity assessment and certification services. BV's reasonable assurance is one of the highest in the verification industry. It is the opinion of BV that the information in the GHG emissions report is accurate and reliable.

To view the Bureau Veritas verification certificate, go to www.apple.com/environment/reports.

[1]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. [2]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. [3]Apple purchases renewable energy under contract and does not use or purchase biologically sequestered carbon instruments or carbon offsets. [4]CO_2e emissions equivalences calculated using EPA's Greenhouse Gas Equivalencies Calculator located online at www.epa.gov/cleanenergy/energy-resources/calculator.html. [5]One metric ton equals 1,000 kilograms or 2,205 pounds. [6]Greenhouse gas savings from participation in renewable energy programs or onsite generation are not reflected in the inventory figure and are accounted for separately. Grid emissions factors are used for calculations in the inventory. Also, differences in the GHG emissions of local power grids are accounted for in the assessment.

For More Information

For more details about Apple's environmental practices, visit www.apple.com/environment.