



As one of the world's largest fabless semiconductor companies, Marvell recognizes its responsibility to promote solutions for the planet's most pressing environmental issues. Together with our customers, employees, partners, and stakeholders, we're determined to be a force for sustainability around the globe.

Our sustainable initiatives strives to offer industry leadership, environmental engineering, and an eco-friendly workplace. Our ultimate goal is to create a cleaner future for the global community by actively contributing our time and technology to help solve the environmental crisis.

Marvell is committed to saving energy and reducing the world's carbon footprint. Through a series of events we highlight our sustainable products and operational initiatives and demonstrate to our employees how they can contribute to creating a healthier planet-at work and at home. And our employees are doing their part: taking alternative modes of transportation to work, using teleconference whenever possible, being selective about what to print, and remembering to turn off lights and power down.

Marvell and our employees have a long history of applying skills and expertise to help address some of the greatest environmental challenges. In 2005 we began an energy-savings program to substantially reduce energy consumption at our U.S. headquarters in Santa Clara, California. Since implementing the program we've been recognized by Silicon Valley Power, a leading utility, for our groundbreaking efforts.

Here are other ways Marvell contributes to a healthier planet:

- **Marvell Smart Technology:** Marvell was the first to market with a DSP-based power factor correction controller for AC-DC power supplies designed to significantly cut PC energy use and reduce emissions.
- Marvell is an active member of several key industry organizations in support of global initiatives, including the Global Semiconductor Association and the [Semiconductor Industry Association](#)

Our other involvements include:

- [Silicon Valley Leadership Group](#): An organization of principal officers and senior managers of member companies that works with local, regional, state, and federal officials to address major public policy issues affecting the economic health and quality of life in Silicon Valley.
- [U.S.-China Green Energy Council](#): A cooperative effort to facilitate and sponsor high-impact green-energy collaborative initiatives and projects between the U.S. and China. The group serves as a platform for the integration of policy, business, investment, research, and educational projects in the two countries.

Our construction and facility operations adhere to environmental best practices intended to improve energy savings and water efficiency while reducing CO2 emissions. Our sustainable buildings leverage recycled and nontoxic materials that reduce the impact on the local environment and provide a healthy indoor environment for our employees.

The operations and management of our sustainable facilities are designed to reduce our ecological footprint and include the following features:

- Regularly monitoring and improving CO2 levels.
- Indoor air quality testing.
- Using low-VOC paints, sealants, and adhesives.
- Conducting routine HVAC maintenance.
- Monitoring and reducing energy use.
- Measuring and comparing our energy performance against industry peers.
- Implementing energy-saving plans.
- Monitoring and reducing water use.
- Measuring and comparing our water-conservation performance against industry peers.
- Using recycled water for landscaping.
- Implementing water-saving plans.
- Providing secure bike lockers and an on-site shower facility for bicycling employees.
- Conducting ride-share and carpool programs.
- Subsidizing public transport.
- Reducing paper waste by printing double-sided and digital reading whenever practical.
- Recycling paper, cardboard, containers, and food waste.
- Diverting waste from landfills.
- Safely disposing of fluoresce tubes, batteries, toner cartridges, and mobile phones.
- Using natural, solvent-free and hydrocarbon-free cleaning products.
- Purchasing only EnergyStar computers, photo copiers, printers, scanners, and fax machines.
- Emphasizing video teleconferencing instead of travel.
- Enabling sleep mode in all electronics equipment.
- Using postconsumer recycled paper and buying from local manufacturers.
- Using remanufactured or refilled toner cartridges for printers and copiers.
- Implementing an integrated building automation system.
- Regularly checking and fine-tuning all lighting controls.
- Regularly checking and fine-tuning HVAC thermostat settings to be consistent with outdoor conditions and occupancy loads.
- Using temperature sensors and timers and/or occupancy sensors to optimize energy performance.

- Meeting all federal and state regulations and committing to Basel Ban Amendments which dictate that hazardous e-waste will not be incinerated, be placed into solid-waste landfills or be exported to other places.
- Repurposing and/or reselling usable equipment and recycling only the electronic equipment that has reached the end of a useful life and/or is uneconomical to repair.

Our sustainable facilities design and construction features:

- General offices: efficient fluorescent electronic ballast and LED (< 1 W/sf).
- Special-purpose lighting: compact fluorescent and LED.
- Lighting controls: comprehensive occupancy-based lighting-control system with appropriate zoning, sensors and daylight linking.
- Retaining existing floor finishes whenever functional.
- Carpet: using low-VOC, modular, reconditioned or high-recycled-content.
- Timber: using high-recycled-content, FSC-certified fast-growing bamboo.
- Using eco-preferable linoleum.
- Minimizing additional new walls, using open-plan design.
- If wall is needed, using reusable wall systems, high-recycled-content wall linings.
- Minimizing additional new ceilings and, if needed, using modular eco-preferable ceiling materials.
- Reusing existing material as much as possible and, if needed, using recycled or FSC-certified or fast-growth plantation material.
- Using low-emission composite timber, laminates, finishes and glues.
- Reusing existing workstation partitions, chairs, tables, cabinets and shelving as much as possible.
- Buying eco-preferable products.
- Using water-efficient fixtures.
- Using EnergyStar appliances.
- Using natural and/or plant-based materials.
- Using low-VOC materials.
- Using water-efficient fixtures.
- Reusing onsite materials whenever it is practical.
- Maximizing diversion of construction waste for landfill.

Marvell continuously strives to find ways to reduce its electricity usage. Between calendar years 2008 and 2011, Marvell was able to reduce its overall electricity usage by 17 percent. When calculated as an intensity rating (mTons of CO₂ per full-time employee), Marvell saw a reduction of 37 percent over this time period. The following table sets forth the calculation to determine the intensity rating:

Year	Metric tons CO ₂ e	No. of Employees	Intensity Rating
2008	38,367	5,569	6.89
2009	36,262	5,212	6.96
2010	29,015	5,808	5.00

Marvell's goal for calendar years 2012 through 2014 is to continue to reduce electricity usage by an additional 5 percent, to an intensity rating of 4.15.



As demand for and use of technology grows, so does the electronic waste that it generates. A responsible steward of the environment, Marvell is focused on the careful disposal of the electronic products we produce and distribute. Marvell actively supports the protection of the environment by efficiently repurposing and reselling its usable equipment and recycling only the electronic equipment that has reached the end of its lifecycle or is uneconomical to repair. At that point, it is deemed e-waste and recycled in accordance with all federal and state regulations.

Since the launch of our e-waste program in 2006, we've recycled more than 280,000 pounds.

Our program is managed by New-Tec Circuit Sales, which is an EPA-approved recycler and an approved participant in the State of California's Covered Electronic Waste recycling program, established in 2005. New-Tec works in strict compliance with the California and federal Environmental Protection Agency standards for e-waste recycling, which covers all computer, manufacturing, and IT equipment.

Our partners in the electronics recycling industry have state-of-the-art processing facilities and ensure that all electronics-including monitors, computer PCs, servers, storage devices, network equipment, copiers, fax machines and handheld devices-are recycled in an environmentally safe way and are kept out of landfill sites.

Marvell adheres to the strict enforcement of recycling principles and is committed to the Basel Ban amendments, which mandate that hazardous electronic waste will not be incinerated, will not be placed into solid waste landfills, and will not be exported to developing countries.

Marvell has also been proactive in diverting waste from landfills. In 2009, we contracted FRG Waste Resources to oversee the management of our corporate recycling program and green initiative. FRG is a leading waste-diversion firm that ensures all recyclable materials are diverted safely and correctly, according to EPA and Department of Toxic Substances Control standards.

Within six months of the program's inception, Marvell increased its landfill diversion rate by more than 10 percent, diverting 256,309 pounds of recyclable material, including cardboard,

compost, paper, cans and bottles, light bulbs, and batteries from landfills. Marvell's diversion rate has climbed year after year as follows:

- In calendar year 2009, Marvell's diversion rate was in excess of 60 percent
- In calendar year 2010, Marvell's diversion rate was in excess of 65 percent
- In calendar year 2011, Marvell's diversion rate was in excess of 70 percent

Marvell determines its diversion rate by dividing the total amount recycled by the total amount of waste created. Marvell is committed to maintaining a diversion rate in excess of 70 percent in each calendar year.



Water is an increasingly scarce resource that nevertheless continues to be used wastefully around the world. Conservation is vital to ease pressure on water supplies and maintain an adequate flow of water for sustainable economic and social development.

Water scarcity is not an issue limited to developing countries. Even in high-tech Silicon Valley, water conservation is more important than ever, as the region's expanding population and continued growth put pressure on its water sources.

In 2008 the [Santa Clara Valley Water District](#) called on local businesses and commercial establishments to significantly reduce water use. Marvell has responded by participating in conservation programs to save water, cut costs, and reduce our carbon footprint.

Our initial efforts, which included changing our landscape irrigation schedule, resulted in a 12 percent reduction in water use in 2010 compared with 2008.

In calendar year 2011, Marvell set a goal to reduce its potable water consumption (amount of water used per employee) by 5 percent. By the end of 2011, Marvell had surpassed this goal with a total reduction of potable water consumption in excess of 5 percent per employee.

Marvell's goal by the end of calendar year 2014 is to reduce its potable water consumption by an additional 5 percent per employee.