

Lam Research Environmental Sustainability Guide



We are committed to integrating environmental sustainability as a key component of our business processes and to the continual improvement in environmental protection, pollution prevention, and regulatory compliance in all of our business activities. By doing so, we will benefit the customers, employees and communities we serve.

This Environmental Sustainability Guide communicates our program policy, commitment, performance and goals with a focus towards future improvements.

Our Environmental Sustainability Policy Statement:

Lam is committed to manage health, safety, and environment as a core business principle to ensure compliance with all applicable government standards and regulations. We integrate health, safety and environment into all aspects of our businesses including products we design to provide our customers and our company with enhanced productivity and responsible solutions.

Lam Research has been registered to the international Environmental Management System standard, ISO 14001 since 2003, is a Charter Member of SEMI[®] Global Care[™], and maintains reports of EHS performance. Lam's aggressive safety program has resulted in one of the lowest injury rates industry-wide. Employee safety is our highest priority. For information about Environmental Health & Safety at Lam Research, please email ehs@lamresearch.com.

EMPLOYEES AND OPERATIONS – We will protect the safety and health of our employees and minimize our environmental footprint through prevention of illness, injury and environmental impact. All employees shall be personally involved in furthering this objective.

SOLUTIONS FOR CUSTOMERS AND SUPPLIERS – Health, safety and environment concerns are integral to our processes, services and product designs, including responsible management throughout our product lifecycle. We educate customers, suppliers and the public about the safe use of our products and openly communicate the protective measures we take for employees, our communities and other key stakeholders.

ACCOUNTABILITY – We utilize environmental, health and safety management systems to apply global standards, including compliance with applicable laws and regulations and other standards to which we subscribe. Our executives and managers are measured and held accountable for the safety and environmental performance of the business. We hold every employee accountable for his or her role in meeting our commitment.

STAKEHOLDER INVOLVEMENT – We work with stakeholders in the development of the laws, regulations and standards that safeguard the community, workplace and environment. As a responsible corporate citizen, we demonstrate this commitment by working within our communities and actively pursuing independent certifications and recognition, as appropriate.

CONTINUOUS IMPROVEMENT – We address occupational injuries and illnesses, emissions, wastes and inefficient use of resources and energy as preventable process defects. We continuously improve our environmental, health and safety management system and work collaboratively with suppliers and customers to deliver solutions that meet business and environmental, health and safety objectives.

Governance

We encourage our employees to embrace our core values and play a key role in carrying out our policy. In addition, we leverage our Environmental, Health and Safety Management Systems to ensure our business processes are rooted in environmental sustainability.

Core Values

What we believe, practice and reward

- Achievement
- Honesty and Integrity
- Innovation and Continuous Improvement
- Mutual Trust and Respect
- Open Communication
- Ownership and Accountability
- Teamwork
- Think: Customer, Company, Individual

Demonstrating Our Commitment

We have a long standing commitment to environmental responsibility in our products, our operations and our culture. Our efforts embody our concern for the environment, our employees, and the continued success of our company. Some of our recent initiatives to foster sustainable growth include:

Infrastructure Upgrades

We have recently commenced initiatives to install lighting controls including motion detectors, timers, and photocells for outdoor lighting to eliminate energy waste. We have also upgraded and adjusted our HVAC systems to coincide with peak demand, saving electricity consumption. In the past two years we have seen benefits from upgrading cooling towers and boilers at our manufacturing facilities. Most recently we have installed more efficient water pumps in our process cooling systems. Savings are already being seen in consumption figures as a result of these efforts.

Water Savings

In 2010, we upgraded our landscaping irrigation system at our Fremont facility. In times of water scarcity, especially in the local region, it was important for our facilities to use water efficiently and conserve where possible. This project is expected to have a three year return on our initial investment. We are also installing high efficiency water fixtures in our facility's restrooms, which will ensure further savings. We are even looking into the feasibility of reusing water from our operations for use onsite

Recycling Program

In 2010, Lam implemented a new recycling program which took a fresh look at our methods. Just in 2010, the average landfill diversion rate rose from 49% to 74% and we saw increased cost savings. Of the measures undertaken was the replacement of traditional open bins for cardboard with a baler machine. This machine compacts our cardboard waste and allows for easy recycling with less mess, space, and lower cost.



Starting in December 2010, Lam introduced a shuttle service program called LRide to help employees commute to work without having to rely on their personal vehicles or waste time sitting in traffic. This service operates between San Jose and our Livermore facility as well as between our Fremont and Livermore campuses. The shuttles feature Wi-Fi and free parking for riders. Though in the early stages of quantification, this program helps decrease our employees environmental footprint and in turn Lam's.



In conjunction with Enterprise Car Rental, WeCar operates as an onsite, membership-based car rental service utilizing 6 Nissan Altima hybrids. Its is designed to facilitate inter-site business travel during the time period not covered by regular LRide shuttle service.

While these efforts are critical to our success, we understand these alone are not sufficient in scale or scope to support our mission. Therefore, we have taken steps to measure and track our environmental sustainability performance in a few key areas as described in the following pages.

Environmental Sustainability Impacts

Recognizing the environmental impact of our company is critical to understanding how we can operate our facilities more efficiently and develop products and technologies to benefit our customers and our stakeholders. We have identified the following metrics as key indicators of our progress towards our environmental sustainability initiatives at our facilities:

Greenhouse Gas (GHG) Emissions

In 2010, we invested to fully understand our Scope 1 & 2 GHG emissions inventory including emissions from energy consumption and use of perfluorocarbons, or PFC's, in our processes. GHG emissions are a key indicator for facility performance and will continue to provide valuable insights on how to best manage our facilities. We have designated calendar year 2010 as our baseline year against which to measure future improvements.

Energy

Across our global facilities, our primary energy usage is associated with electricity and natural gas consumption. Tracking these utilities allows us to analyze trends across our facilities and highlight areas where reductions and efficiency gains can be fruitful. We leverage this analysis to share best practices between facilities.

Solid Waste

Solid waste generated at our facilities has been sorted out as not recyclable by our waste management plans and is segregated for disposal. We have put in place guidelines to determine solid waste characteristics so that if possible, they can be diverted from disposal at landfills. We maintain accurate records of solid waste generation to improve the ratio of waste diverted from landfill via recycling or reuse.

Hazardous Waste

Resultant from our operations, we generate hazardous and universal waste. These waste streams are tracked for regulatory compliance and to account for costs associated with their disposal. They are the result of indirect operations as well as direct manufacturing and packaging of our products.

Recycling

Based on our waste management plans we segregate waste produced at our facilities which has been designated for recycling. These materials include aluminum, glass, plastic, metal, paper, solid waste, cardboard and wood. Wood, for example is traditionally a byproduct of our product packaging. Due to the size of our products, the amount of wood available for recycling is high in proportion to other streams.

Water

We use water in restrooms, landscaping irrigation, and in the production of our core products. Water, in particular, clean water, is an important commodity in our industry for use in cleaning and manufacturing our products. Recently we have implemented a number of water saving initiatives and are currently considering the feasibility of a number of water reuse activities onsite in conjunction with direct water use.

Health and Safety

The health and safety of our employees is critical to the success of our facility operations and overall sustainable performance of our business.



Sustainability Scorecard

We use our scorecard as a way to baseline and understand the ongoing performance of our facilities with regard to environmental sustainability. This scorecard is the culmination of data collection since 2006. It is important to note that our facility footprint has grown over the course of this data collection, affecting consumption figures. We are currently establishing criteria to reflect this fact.

	2006 ⁽¹⁾	2007	2008 ⁽²⁾	2009	2010
GHG Emissions⁽³⁾					
Global Scope 1 and 2 Emissions	~	~	~	~	18,763
Global Scope 3 Emissions	~	~	~	~	23,674
Perfluorocarbon (PFC) Emissions	~	~	~	~	11,253
Energy					
Electricity (MWh) ⁽⁴⁾	32,524	35,219	44,392	42,007	44,731
Natural Gas (Therms)	364,168	512,429	468,529	399,792	433,036
Waste					
Hazardous Waste (Metric Tons)	11	235	1,655	1,015	310
Solid Waste (Metric Tons)	446	516	391	489	461
Water					
Water Usage (Cubic Meters)	166,688	199,941	232,547	195,422	183,253
Recycling					
Mixed Media (Metric Tons)	528	625	513	421	1,046
Diversion Rate (%)	54	55	57	46	69
Health and Safety					
Total Case Incident Rate per 100 employees (TCIR)	1	0.7	0.7	0.8	1.1
Total Lost Workday Case Incidence Rate per 100 employees (LWCAIR)	0.1	0.2	0.3	0.3	0.8

(1) = 2006 Figures represent only our facility in Fremont, California.

(2) = In 2008 Lam acquired Austrian SEZ AG. The full calendar year's data is included in these figures.

(3) = 2010 is the baseline year for reporting GHG Emissions. Figures in metric tons CO₂ equivalent units.

(4) = These are absolute figures.

Future Goals, Objectives, Measures

We set our goals based on the opportunities that exist within each facility to reduce our impacts. Lam has explored and implemented a number of initiatives to responsibly manage and conserve resources in line with our global environmental sustainability policy. While we are early on in this process, we believe we can achieve the following goals by driving a consistent focus on these initiatives across the organization. As we learn more, our teams will work to refine and confirm these targets over the course of 2011.



Establish 2010 as baseline year for GHG Emissions

The objective for near term GHG performance is to improve and substantiate the methods used to collect GHG data. We plan to build upon our baseline year of 2010 including broadening our scope of GHG gases currently being reported and reduce emissions against that year by implementing corporate wide efficiency and conservation efforts.



Reduce Energy Usage by 5% from 2010 to 2014

Detailed tracking and monitoring of utility data will optimize our ability to see where improvements can be made within our organization. Improved metering and lighting controls as well as infrastructure changes will help to decrease electrical consumption. Changes in natural gas related heating and infrastructure will decrease our costs and reliance on this fuel.



Reduce Hazardous Waste by 5% from 2010 to 2014

Due to the amount of hazardous waste we generate, we are currently required to draft biennial reports to comply with regulations. For this reason and the overall nature of these wastes, we have implemented a number of initiatives to decrease and find alternatives within our operations.



Reduce Solid Waste to Landfill by 5% from 2010 to 2014

We are currently implementing a number of waste management and reduction initiatives such as waste audits in our facilities and automatic paper towel dispensers in restrooms. Of course, the less we use, the less we have to recycle so these conservation activities will not only save operating costs, but reduce our raw material inputs. Our future goals will be achieved through continued diligence in these areas.



Recycling

In parallel with our operational waste reduction activities, Lam is concentrating efforts on increasing landfill diversion rates, further defining recycling capabilities and ensuring employees are aware of recycling efforts at facilities. In 2010 alone, Lam has seen increased cost savings due to renewed emphasis on our recycling program.



Reduce Water by 5% from 2010 to 2014

We design our products to save customers water and money. We take the same approach with our facilities. During calendar year 2010 we have implemented a number of water-saving tactics like automated faucets, upgraded irrigation systems, and we are considering multiple options for water re-use onsite.



Health and Safety

The health and safety of our employees is critical to the success of our facility operations and overall sustainable performance of our business. Throughout our global operations we will strive to leverage our growing health and safety management systems to drive safety incident rates to zero.

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Available upon request from Lam Research

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