



TE Touch Solutions: Environmental Leadership at Work



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TE Touch Solutions' touchscreen technologies have made it a global leader well positioned to influence the industry to adopt innovations and business practices that are environmentally sound.

A global market reach provides valuable insights into the environmental concerns and requirements of customers and their respective governments. This market leadership provides the strength and resources to continually develop, refine, and promote new green technologies and manufacturing processes. The goal is to serve as a catalyst for driving positive environmental changes in the industry.

Initiatives implemented across TE Touch Solutions product lines extend beyond the basic requirements of various environmental regulations. Continually striving to exceed existing standards and customer expectations has led to technological innovations and a sustainability focus being embedded into many aspects of design review and product development, manufacturing and logistics processes.



Touchscreen Technology Innovations

TE Touch Solutions is incorporating several of the technological innovations into the product portfolio to reduce the amount of energy. We currently plan to use light emitting diodes (LEDs) for monitor backlights instead of cold compact fluorescent lighting (CCFL) tubes that are typically used. LEDs are more efficient lighting sources than CCFLs and use two-thirds less power. Additionally, unlike CCFLs, LEDs do not contain mercury, which can be harmful to the environment and to people's health.



Smart Recycling and Materials Usage

Many non-recyclable and hazardous materials in TE Touch Solutions products have been replaced with recyclable and safer alternatives. Manufacturing and shipping materials have also been upgraded to be environmentally compliant and efficient. For instance, our touchscreen monitors and stands are made with recyclable plastics that are free of hazardous substances. Cardboard and polystyrene packaging are being replaced with all-recyclable paper packing materials. TE Touch Solutions products also provide for reclamation of its touchscreens and LCD touch-monitors. We provide recycling centers with disassembly instructions for monitors and computers, and label products to indicate that they should be recycled properly.



Manufacturing Improvements at TE Touch Solutions

The global manufacturing lines that produce the majority of TE Touch Solutions products include energy-efficient burn-in chambers. The products are exposed to sustained high temperatures in the burn-in chambers for about 48 hours to screen out circuit board and semiconductor component failures which are most common in the very early life of electronic components. By sorting these early failures we improve our reliability and long term performance of our products for our customers.

Responsibility in Environment



As part of the TE Connectivity Ltd. family of companies ("TE"), the TE Touch Solutions business unit has a responsibility to implement the corporate policies, management systems, and practices to manage key environmental impacts throughout its facilities.

Our Commitment

At TE, we are committed to protecting the environment by reducing energy and other resource usage across the entire company and by reducing the environmental impact of our products and our operations.

Our Products and Operations

We are reducing the environmental impact of our products and our operations; re-using and recycling our packaging materials; minimizing the use of hazardous chemicals involved in the manufacture of our products; and reducing energy and other resource usage across the entire company.

Policy & Management Systems

TE has an Environment, Health, and Safety (EHS) policy describing our commitment to compliance with all applicable laws and protection of the environment. Specifically, the policy notes our commitment to:

- Operating our facilities around the world in a manner that protects our employees, public health, and the environment.
- Complying with all applicable laws and regulations at every location where we operate and applying our own more stringent standards and policies wherever necessary to protect our employees and the environment.
- Seeking to continuously improve our environmental and safety performance.
- Designing our products and processes in a manner that minimizes risks from the manufacture, use, and disposal of our products.
- Reducing or eliminating the presence of lead and other hazardous materials from our products in accordance with legal requirements and customer demands.
- Conserving energy, water and raw materials and reducing waste and emissions.
- Being a good neighbor in the communities where we operate.

TE seeks to reduce the environmental impact of our operations in numerous ways. Since 2009, we have measured and set improvement goals for reducing electricity and fuel usage, greenhouse gas emissions, water usage, wastewater discharge, and waste. We measure our impact on a global basis, including data (see page 4) from all manufacturing locations, warehouses, company-operated vehicles, our fleet of ships, and a significant number of office locations- roughly 165 reporting locations in total.

Greenhouse Gas Emissions & Energy Use



To reduce our greenhouse gas (GHG) emissions, we continue to explore ways to reduce electricity and fuel usage. We conduct audits of energy usage at our sites to help us identify and effectively implement changes, which yield electricity and fuel savings. For example, at many of our locations worldwide we have upgraded to more efficient lighting systems and installed motion detectors to reduce energy usage.

As our efforts expand, we expect to increase our energy efficiency and decrease GHG emissions significantly. In fact, from 2009 to 2010 alone, we achieved an eight percent reduction in GHG emissions, even though our sales volume increased significantly as the economy rebounded.

We expect that continued attention to our audit findings will yield continuous improvement in the future.

TE also reports our progress to the Carbon Disclosure Project (CDP), the most-widely used and recognized global database of corporate GHG emissions data.

Water, Wastewater & Waste



In Fiscal 2010, TE's global operations used approximately 1.3 billion gallons of water and discharged 945 million gallons of wastewater, mostly generated from manufacturing and sanitary sources. All wastewater is treated to meet applicable discharge limits, and we often go beyond regulatory requirements.

Our plants worldwide are actively seeking and finding ways to reduce the amount of water used in, as well as the amount of wastewater discharged from, our facilities. We have adopted methods that have greatly reduced wastewater discharges from electroplating processes, which is a main focus of our wastewater reduction efforts. We expect to continually reduce our water use and discharges through conservation efforts and improved water reuse technologies.

Our long term goal is zero waste, and we are constantly seeking to re-engineer our products and production processes to become waste-free. For instance, we recycled nearly 75 percent of the 75,000 metric tons of the by-product materials generated in fiscal year 2010, and we recycled or reused more than 80 million pounds (36.4 million kg) of metal scrap and plastic resin from our manufacturing operations. Better electroplating processes allow us to recover 80 to 95 percent of the chemicals in the wastewater.

Responsible Actions for Sustainable Products



As part of our design reviews and in selecting new materials, we take into consideration the potential hazardous nature of materials and how they may impact the environment. Eliminating hazardous materials is part of how TE does business. More than 85 percent of our products meet the European Union End-of-Life Vehicle (ELV) and Restriction on the Use of Hazardous Substances (RoHS) directives. The remaining products are sold to industries, such as military and aerospace, where lead-free products are not currently accepted. These products contain significantly reduced amounts of lead, cadmium and hexavalent chromium.

We also participate in industry forums and standards organizations that address the management and control of hazardous substances not covered by current legislation. For example, we are working on an industry initiative to reduce the use of halogens in electronic products, and are converting to and developing halogen-free products.

Key Data



In fiscal 2009, TE undertook a comprehensive measurement of our global environmental footprint. This effort included all manufacturing locations, warehouses, company operated vehicles, our fleet of ships, and significant office locations. In total, more than 160 locations reported data.

Through this process, we collected data on our significant environmental impacts: electricity and fuel usage, greenhouse gas emissions, water usage, wastewater discharge, and waste. We now collect this data on a monthly basis, and have established an across-the-board reduction target of 10 percent from the 2010 baselines (relative to production) by 2012.

Carbon Disclosure Project

We also are reporting to the Carbon Disclosure Project (CDP) on our greenhouse gas (GHG) emissions. The CDP is the most-widely used and recognized global database of corporate GHG emissions data.

Environment	2009	2010
Greenhouse gas emissions (metric tons CO2 equivalent[2])	777,427	714,111
Energy consumption -- includes electricity, heat, steam, and cooling (MWh)	1,729,985	1,630,295
Water usage (millions of gallons)	1,212	1,307*
Materials recycled/reused (metric tons)	55,187	56,068
Total Waste Generated (metric tons)	16,402	17,436*
Hazardous Waste (metric tons)	5,293	6,456*

*TE had significantly higher volume production in 2010 compared to 2009. When adjusted for volume, our 2010 performance improved over 2009 on all measures.

Reducing our Environmental Impact



Over the course of the next year, we will work toward our goal of a 10 percent reduction of significant environmental impacts by 2012. We will do this by:

- Measuring at site and business unit levels and holding each of our business units accountable for progress.
- Using our “lean initiatives” to reduce the amount of waste we generate.
- Using energy teams at our plants to conduct energy audits and implement energy conservation plans.
- Engaging employees in our efforts, and providing tips on what they can do.
- Identifying and applying best practices for reducing environmental impacts in common processes at TE – such as molding, stamping, and plating.



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