

# Sustainability at ADTRAN

As we follow our vision to enable a fully connected world, we are embracing sustainability. As more people are connected, work and life can be accomplished using fewer resources.

On the journey to our vision, we must continue to be a responsible corporate citizen of the world.

We will accomplish this in the typical ADTRAN entrepreneurial, reliable and ethical way by:

- Using our Environmental Management System as a tool to support our initiatives as we explore and understand environmental issues and adapt our processes
- Developing and delivering products that meet our customer requirements, while incorporating material and energy conservation initiatives
- Striving to communicate and incorporate sustainability initiatives throughout the supply chain
- Continually reviewing our operations to increase efficiencies, improve and protect our environment, and conserve natural resources while preserving the unique ADTRAN culture
- Educating, developing and empowering our employees, and thus enabling them to identify and adopt best practices that will enhance sustainability
- Maintaining our financial responsibility to our shareholders and employees while supporting our sustainability initiatives

## Our Commitment to Protecting the Environment

As a good steward of the environment, ADTRAN actively promotes eco-friendly manufacturing processes, energy efficiency, and conservation. Our commitment is not only to global regulations and policies but is part of a green philosophy extended into our local community, as well as, our corporate, campus-wide environment.

## Environmental Accomplishments

Among our many accomplishments, ADTRAN has developed manufacturing processes which allow us to control the amount of air emissions and hazardous waste produced. We also have a safety and health program which includes hazardous communication and environmental awareness training for all of our employees. Additionally, ADTRAN is in compliance with all federal, state, and local regulations regarding air emissions and hazardous waste. Additional achievements include:

### Air Emissions

ADTRAN has effectively eliminated air emission concerns associated with its manufacturing processes by utilizing water-based, non-hazardous flux on all manufacturing lines. For the greatest air-filtering efficiency, we currently utilize Impel filtering system hoods to exhaust our manufacturing equipment.

### Green Energy

Across our campus, we have implemented practices that better utilize and conserve energy. For example, we phased out non-green fluorescent light bulbs via our bulb-replacement maintenance program and are now using energy-saving compact fluorescent bulbs, where feasible. We have also reduced energy consumption through our best facility maintenance practices, which include implementing after-hours equipment operational set-backs, and installation of energy-saving equipment, such as variable-speed drive motors.

### Hazardous Waste

ADTRAN is listed as a small-quantity generator of hazardous wastes. To ensure greatest safety and compliance, all hazardous waste is hauled and disposed of by a licensed hazardous waste transporter.

### Landfill Waste Reduction

A campus-wide recycling program has been established for corrugated cardboard, wood pallets, and batteries.

### Packaging/Shipping

ADTRAN uses recycled packaging materials whenever possible and all packaging materials can now be recycled.

### Water Discharge

ADTRAN submits annual reports to governing authorities outlining compliance with water discharge regulations. Our local government inspects annually to ensure total compliance.



## ISO14001 Environmental Management System

ADTRAN developed and documented an environmental system in 2004, and obtained registration to ISO 14001 on January 28, 2005.

It is our intention to maintain an Environmental Management System that complies with the requirements of ISO 14001-2004 at its facilities. EMS will help the company in achieving its environmental goals including reducing the use of natural resources.

The purpose of the EMS is to manage and control activities and processes that have a significant impact on the environment, minimize the impact of these activities, and achieve continual improvement of the EMS and ADTRAN's environmental performance.

It is a requirement that employees of ADTRAN understand, implement, and continually support the objectives of the environmental policy. Employees are responsible for helping to minimize the company's impact on the environment and the use of resources, by following instructions, procedures, work instructions and forms developed for their individual tasks. Employees are encouraged to make recommendations for improvements to the environmental program.

### ADTRAN Environmental Policy

ADTRAN is committed to the protection of the environment and the conservation of natural resources in our daily operations and the production of our products. To this end ADTRAN will:

Comply with all applicable environmental laws, regulations, and company requirements,  
Continually meet or exceed established improvement objectives for the environmental management system, and  
Communicate and educate our employees and suppliers on environmental responsibilities.

#### Downloads:

[ADTRAN Environmental Compliance](#)  
[ADTRAN Environmental Policy](#)

#### ISO14001

[USA Certificate](#)  
[Environmental Objectives & Targets](#)

For inquiries and suggestions, please email [Loren Gilbreath](#). For inquiries regarding the ADTRAN Environmental Management Manual, contact [George Giles](#) or [Phil Jackson](#)

### Environmental Compliance

With the passing of the RoHS Directive (Reduction of Hazardous Substances 2002/95/EC) on January 27, 2003, the European Union (EU) paved the way for a new "lead-free, RoHS-compliant" era for electrical and electronic equipment. From July 1, 2006, electrical and electronic devices placed on the market in the EU will have restrictions placed on six (6) substances: lead, cadmium, mercury, chromium VI compounds, and two flame-retardants - Polybrominated Biphenyls (PBB) and Polybrominated Diphenyl Ethers (PBDE). After this date, all non-complying products will be banned from entry in the EU member countries.

The WEEE (Waste of Electronic and Electrical Equipment 2002/96/EC) directive went into effect August 13, 2005. It addresses the increasing waste stream of Electrical and Electronic Equipment (EEE) in 10 specific product categories, and imparts recycling responsibilities and related costs to the producer (OEM's). The RoHS Directive compliments the WEEE Directive by requiring the removal of the six (6) specific substances in new EEE.

ADTRAN has attained ISO14001 certification, and is committed to being an environmentally sound supplier. We will provide our customers with products that conform to worldwide RoHS directives, and all applicable environmental laws and regulations.



ADTRAN will be providing select RoHS compliant products for sale in the European marketplace in 2006. As an OEM provider of telecommunications and network infrastructure equipment, ADTRAN will exercise an exemption to the EU directive that will allow the continued use of lead (Pb) in solders. This exemption will remain in effect until at least 2008; however, ADTRAN will meet the balance of the directive's requirements on the remaining five (5) substances.

To avoid confusion in the ordering process, the suffix "Fx" (i.e. F1, F2, etc.) is used in the product code to designate full RoHS compliance and the suffix "Gx" (i.e. G1, G2, etc.) is used in the product code to designate RoHS compliance with the lead (Pb) in solders exemption (5/6). These products will also include all applicable WEEE marking requirements and labeling, and certificates of compliance upon request.

ADTRAN will continue to offer its existing products (non-RoHS versions) in markets outside the EU. They are identified by a suffix of "Lx" (i.e. L1, L2, etc.) in the product code.

Please contact your ADTRAN Sales Representative, or one of our sales partners, if you have any questions about our plans to use environmentally safe materials and/or product availability.

RoHS Contacts at ADTRAN:

**Vernon Saunders**, Component Engineer, Environmental Compliance, (256) 963-8119, [vernon.saunders@adtran.com](mailto:vernon.saunders@adtran.com)

### **Environmental Product Compliance**

ADTRAN is committed to upholding and promoting policies which protect the environment. Our dedication to environmental compliance includes engaging in internal, corporate-wide initiatives, as well as adhering to and championing global standards established for the OEM community. We provide our customers with products that conform to worldwide RoHS (Reduction of Hazardous Substances 2002/95/EC) directives, and all applicable environmental laws and regulations.

ADTRAN has attained ISO 14001 certification, which is considered the leading internationally-accepted standard for environmental management systems. ADTRAN is proud of this certification, and proud of our commitment to being an environmentally-sound and responsible supplier.

### **Product Compliance**

As an ISO 14001 company, ADTRAN is committed to upholding the following policies for product compliance.

#### **RoHS**

ADTRAN has been providing select RoHS-compliant products for sale in the European marketplace since 2006, following the European Union's (EU) RoHS directive promoting a lead-free era for electrical and electronic equipment. The directive specified restrictions for devices placed on the EU market, and included the following components: lead, cadmium, mercury, chromium VI compounds, and two flame-retardants - Polybrominated Biphenyls (PBB) and Polybrominated Diphenyl Ethers (PBDE). All non-complying products have been banned from entry in the EU member countries.

As an OEM provider of telecommunications and network infrastructure equipment, ADTRAN exercises an exemption to the EU directive that allows the continued use of lead (Pb) in solders only. The requirements on the remaining five (5) substances continue to be met.

To avoid confusion in the ordering process, the suffix "Fx" (i.e. F1, F2, etc.) is used in the product code to designate full RoHS compliance and the suffix "Gx" (i.e. G1, G2, etc.) is used in the product code to designate RoHS compliance with the lead (Pb) in solders exemption (5/6). These products also include all applicable WEEE (Waste of Electronic and Electrical Equipment 2002/96/EC) marking requirements and labeling, and certificates of compliance upon request. ADTRAN continues to offer its existing products (non-RoHS versions) in markets outside the EU. They are identified by a suffix of "Lx" (i.e. L1, L2, etc.) in the product code.

#### **WEEE**

The WEEE (Waste of Electronic and Electrical Equipment 2002/96/EC) directive went into effect August 13, 2005. It addresses the increasing waste stream of Electrical and Electronic Equipment (EEE) in 10 specific product categories, and imparts recycling responsibilities and related costs to the producer (OEM's). The RoHS Directive complements the WEEE Directive by requiring the removal of the six specific substances in new EEE. Additionally, we actively work with our selling partners (distributors) to ensure they are complying with WEEE reporting requirements and to maintain recycling infrastructures.

## REACH

ADTRAN is currently evaluating our products, manufacturing processes, and supply chain in compliance with the REACH Regulation (2006/1907/EC) concerning the registration, evaluation, authorization and restriction of chemicals (REACH). The EU-adopted regulation went into effect, June 1, 2007. ADTRAN fully intends to continue the evaluation process and take the necessary actions to comply with the REACH requirements, as applicable.

For information on the availability of environmentally-safe products, please contact your ADTRAN Sales Representative, or one of our sales partners. [www.adtran.com/where2buy](http://www.adtran.com/where2buy)

## The Five Core Dimensions of Sustainability

ADTRAN is committed to continuous improvement of our business operations through measurable environmentally and socially sensitive performance. This benefits our customers, suppliers, shareholders, employees and society at large.



## Sustainability - Frequently Asked Questions

1. What do we mean when we say "Sustainability"?
2. What is a carbon foot print?
3. How do we measure our corporate progress toward going green and becoming sustainable?
4. What does ADTRAN's 4Rs stand for?
5. What is the purpose of the ADTRAN Green Team?
6. What can employees, as good environmental stewards, do at work and at home in support of sustainability?
7. What green programs are in place at ADTRAN today?
8. What is single-stream recycling?
9. Are other ADTRAN facilities participating in green programs?

1. What do we mean when we say "Sustainability"?

Sustainability is defined as "the ability to meet current needs without hindering the ability to meet the needs of future generations in terms of economic, environmental and social challenges."

2. What is a carbon foot print?

A carbon footprint is a measure of the impact human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide. It is meant to be useful for individuals, nations and

organizations to conceptualize their personal (or organizational) impact in contributing to global warming.

3. How do we measure our corporate progress toward going green and becoming sustainable?

We utilize targets and objectives initially formulated by the Environmental Group Action Leaders and approved by executive management. These objectives and targets are assigned action items and implementation dates, tracked and measured, and reviewed during Quality management review meetings. Landfill baseline usage information has been established and is monitored as we continue to reduce waste stream substances.

4. What does ADTRAN's 4Rs stand for?

**Reduce, Reuse, Recycle and Rethink.**

**Reduce** – Use less and save resources that cannot be totally eliminated

**Reuse** – Extend the usable life of natural, company resources by using the material in other applications.

**Recycle** – Transform the material into another useful form after their initial application life and reducing landfill space for waste.

**Rethink** – Reconsider a better way of doing things. Consider options to reduce resource and energy use as well as costs.

5. What is the purpose of the ADTRAN Green Team?

The "Green Team" is comprised of a cross functional group of key employees from all phases of ADTRAN business. This team reviews individual aspects of our business and processes with the overall goal of reducing our carbon footprint through sound, sustainable, environmental and financial practices.

6. What can employees, as good environmental stewards, do at work and at home in support of sustainability?

At work employees can offer suggestions through the corporate suggestion program for continually improving our green programs. Employees can turn off their lights when leaving their offices, when feasible print on both sides of paper, follow recycling guidelines and encourage others to follow the 4R's of environmental stewardship.

At home we can recycle and be energy efficient in how we use our natural resources. Take advantage of ADTRAN's carpooling program. Combine tasks to reduce driving requirements. Use and reuse canvas grocery bags instead of plastic ones.

7. What green programs are in place at ADTRAN today?

ADTRAN recycles tons of scrap material annually. Cardboard, product components, computer equipment and housings are some of the material currently being recycled. The recycling program is currently expanding to include aluminum, bi-metal, magazines, newspaper, office paper, plastic bottles #1 and #2, and shrink wrap material. ADTRAN has reduced its energy consumption with the implementation of automated HVAC controls, energy efficient light bulb change over and a turn off your lights company-wide awareness campaign. From recycling to the utilization of grass eating carp in the lake to reduce the use of herbicides. ADTRAN continually looks for innovative ways to promote a greener environment.

8. What is single-stream recycling?

"Single-stream" recycling refers to the recycling of common work place goods through a centralized container system, i.e. bottles, cans, paper, etc. can be collected at the work site in a single container.

9. Are other ADTRAN facilities participating in green programs?

Yes, there are other ADTRAN facilities currently recycling. We will continue to foster and implement energy conservation and recycling programs where feasible. Some satellite locations are leased facilities and are governed by the facilities owners which preside over the parameters of the recycling efforts.

## **Sustainability Initiatives**

### **Operations**

ADTRAN Operations Group is serious about sustainability. Waste management, water/energy conservation and emission control/carbon footprint reduction are the initial focal points of initiatives designed to foster a green supply chain. Efforts to redesign our logistics system continue as localization of material supply, direct shipment of customer orders and optimizing transport modes will combine to dramatically reduce carbon emissions. Manufacturing process and scheduling improvements are being reviewed as we work to drive efficiencies and optimize asset utilization to conserve energy. These enhancements combined with the expansion of paperless process initiatives across all departments and comprehensive recycling efforts are keys to waste management. We strive to reduce tonnage to landfill and increase material reuse/recycling. Our efforts extend beyond internal departments as we launch supplier surveys to better understand our extended carbon footprint; monitor initiatives of our key supply chain partners; and establish comprehensive supplier standards.

### **Facilities**

Energy consumption reductions via heating, air conditioning, and lighting improvements.  
Recycling program for corrugated cardboard and white paper.

Recycling program for plastic, metal, colored paper, batteries, and ink cartridges.  
Clean air quality and emissions via filtering systems.  
Lake aquatic vegetation management via grass eating fish.

### **Information Technology**

Server Virtualization - IT continues to leverage virtualization technologies to consolidate the number of physical servers deployed at ADTRAN. Consolidation reduces the amount of energy used in both powering the servers and cooling the data centers.

Equipment Recycling Program - IT recycles decommissioned PCs, monitors, servers and various other electronic components. The recycling program has been in existence since 2004.

LCD Monitors - Over the last several years, IT has been purchasing LCD monitors in conjunction with all new PC systems. Existing CRTs are being replaced with LCDs as they reach the end of their lifecycle.