

Environmental initiatives in the United States

In 2010 a major process of assessing the environmental impact for the main sites of the Group in the U.S. was undertaken; consequently it was possible to extend the perimeter of the data included in this Report.

The American companies covered by this report are:

- ▶ GTECH, whose presented data are referred to the Coventry (Rhode Island, USA) Manufacturing, the Headquarter offices in Providence (Rhode Island), West Greenwich Technology Campus (Rhode Island) and all the GTECH fleet; other business offices and the new call center in Providence (which started operations in October 2010) are not included.
- ▶ GTECH Printing Corporation (GPC), committed in the instant lottery tickets printing and selling. Data reported refer to the manufacturing and offices site of Lakeland (Florida).
- ▶ ATRONIC AMERICAS, which is mainly involved in the final assembling and testing of gaming machines for casinos. Data reported refer to the manufacturing facilities of Scottsdale (Arizona) and Grier (Nevada) and the offices located in Spencer (Iowa).

In the following paragraphs, data are presented for the three companies separately for each topic.

The Group, as mentioned in the previous Reports, is committed to minimizing its impact on the environment as they conducts business around the world and continually strive to improve their environmental goals, fulfilling the following principles:

- ▶ Conducting operations in a manner that protects the environment, employees and neighbors.

Environmental Management System

GTECH has been recommended for ISO 14001:2004 certification of its Environmental Management System at the end of 2010 (official certification was delivered the 19th of January 2011). This certification is an internationally-recognized benchmark for creating and maintaining an Environmental Management System (EMS), which is a set of green practices and procedures for employees to follow. GTECH is one of the first in the lottery industry to receive this distinction.

- ▶ Complying with all laws, regulations, and permits applicable to the products and operations.
- ▶ Applying continual improvement and pollution prevention principals to cost-effectively reduce the environmental impacts of manufacturing processes and of products.
- ▶ Establishing and regularly reviewing environmental objectives and targets.
- ▶ Making available to the public the environmental performance of its operations.
- ▶ Ensuring that its employees have the knowledge, resources, and the authority to implement these guiding principals.

In the early 2011 GTECH's manufacturing and corporate office were ISO 14001:2004 certified. Certification required the establishment and implementation of an Environmental Management System. GTECH's system has been audited and certified by an external auditing body.

Also in GPC in April 2011, the ISO 14001 external auditor QSR completed their audits and have recommended GPC for ISO14001:2004 certification, and in May 2011 GPC has received official ISO14001:2004 certification.

GPC 2011 Environmental objectives

1. Decrease electrical use by 10% and consequently reduce greenhouse gas emissions.
2. Establish a solid waste recycling program to reduce waste sent to landfill.
3. Decrease natural gas consumption by 10% and consequently reduce CO₂ and pollutant emissions.
4. Investigate reduction in volume of liquid waste disposal.

Materials

GTECH's manufacturing facilities comply with all applicable laws and regulations, including RoHS (Restriction of Hazardous Substances Directive). They generate a minimal amount of harmful waste and emissions in the air. Further, the company has converted from non-biodegradable bubble wrap and Styrofoam peanuts to biodegradable packaging material for shipment of certain equipment such as spare parts.

As an assembly facility, Atronic Americas needs to protect equipments and components supplied to the customers. Biodegradable packaging material is used for the shipment of components to customers. The Company uses 22 different sized boxes in order to not waste material thanks to the use of the correct box for the different items.

Input materials consist mainly of paper and ink for office purposes and components which are assembled.

GTECH is RoHS compliant and follows internal procedures to ensure they are compliant with all RoHS regulations and/or requirements. The RoHS Regulations implement the provisions of the European Parliament and Council Directive on the Restrictions of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (2002/95/EC) in order to:

1. protect human health and the environment by restricting the use of certain hazardous substances in new equipment;
2. complement the Waste Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC).



GREEN
A GTECH Pledge

GREEN: A GTECH Pledge

GTECH's and Atronic's joint Green Committee is tasked with the development and measurement of energy-efficient office products, services, activities, and behaviours.

GTECH employees are an integral part in ensuring the success of programs such as double-sided printing, the use of reusable mugs, and now composting. GTECH employees have proven to be dedicated to reducing Company's carbon footprint through the initiative GREEN: A GTECH Pledge. A dedicated email box: gogreen@GTECH.com, allows employees to submit ideas and suggestions on how they can continue to make a difference.

With regards to the actual products themselves, GTECH utilizes thermal paper for all retailers in the domestic US as of 2011. The Company has been on the cutting edge of working with key domestic suppliers in developing cost effective thermal paper solutions for the terminals. In fact, since the first thermal startup in 2003, the Company has reduced or reformulated many aspects of the thermal paper to reduce the overall basis weight and caliper, and also used the space on every ticket in a more environmentally sensitive manner. With the Green Initiative, GTECH has several of the sites conforming to a non top-coated thermal paper which contains fewer chemical coatings and also are in the midst of redesigning the layouts of the receipts to consumers in order to make them more readable and user friendly than in the past. All of these improvements were made with the intent of lowering the overall usage, reducing wasted space and using more environmentally sound products with no change to the expectation of the performance of the paper itself.



All of the current paper suppliers are SFI (Sustainable Forestry Initiative) or FSC (Forestry Stewardship Council) chain-of-custody certified as well which demonstrates their commitment to using sound business practices for all GTECH related products.

As a printer, GPC relies heavily on the supply of paper and is committed to reducing its impact on forests. This philosophy is similar to the major suppliers of paper who embrace standards like FSC, SFI and PEFC. The FSC, SFI and PEFC, all promote

sustainable forest management, reforestation and continuous improvement in standards and practices. In addition, these independent organizations employ guidelines consistent with GTECH sustainability principles to ensure customers of an environmentally sound sourcing process.

In 2010 all the paper used for printing purposed in GPC was FSC certified (the main part coming from virgin fibres and the remaining coming from recycled paper).

The following table illustrate the global materials consumption.

 **GTECH have started to use more environmentally-friendly paper for the forms used to manually place wagers; typically called playslips or betslips such as hybrid paper types that use 30-40% less trees to manufacture.** 

TAB. 24 MATERIALS USED IN 2010 (t)

Category	GTECH	Atronic Americas	GPC
Assemblies	151	36	0
Electronic components	62	16	0
Cables	27	1.3	0
Plastic for packaging including foam	16	10	0
Metals	1,697	0.51	0
Wood	0	12	96
cardboard for packaging	59	1.8	110
Office paper	40	1.8	1.48
Paper for printing tickets	0	0	3,575
Ink, toner and ink jet for printing in the offices	0.4	0.03	3,335



Energy

All the companies are working to implement energy-saving interventions at their main facilities. Actions taken include conversion to more efficient lighting, lighting timers, Company discounts for use of public transportation, and awareness programs to encourage employees to turn off computers/monitors when not in use. Atronic Americas warehouse has removed approximately half of the old inefficient fluorescent tubes, and makes use of natural lighting from the skylights and open doors.

GTECH occupies approximately 200,000 m² of building space worldwide. The Company consumes electricity and natural gas at these buildings. All buildings are metered, and, where possible, GTECH space within shared buildings is metered in order to better

monitor consumption. The company also uses natural gas and diesel at facilities that are equipped with generators.

GTECH first introduced Energy Saving PC Settings to desktop computers in 2009. After the success of initial pilot, the computer settings were deployed to all Company computers worldwide. This time around, an additional 1,400 employees accept the power settings.

 **Nearly 75 percent of**
Company computers are using
green energy settings. 

Saying “yes” to monitoring computer power is just one of the many ways employees can help GTECH become a greener place. The simple process of setting a computer to go into sleep mode when not in use can reduce energy consumption by up to 85 percent, so it is GTECH’s goal to have 100 percent participation.

GTECH Powers Down to Conserve Energy

GTECH is proud to have participated in the annual PowerITDown Day on Friday, August 27th, 2010. This initiative was started three years ago, and urges companies to power down their IT equipment overnight in order to save energy. This year, close to 18,000 people from various companies participated throughout the United States, Canada, and Latin America, saving a total of 55 kilowatt hours per person. A whole weekend of energy savings was realized because the event fell on a Friday. This was a great initiative for GTECH to participate in, and demonstrates how much one person can help to improve the environment al quality.

The majority of the Atronic Americas business are in Las Vegas, Nevada, where temperatures reach above 43° C during the summer months. This puts a lot of strain on the local area, with a large draw of electricity to maintain a pleasant working atmosphere.

At GPC the energy consumption for the facility is by itself around one third of that used for production. They are focusing on two ongoing initiatives to further improve the operating efficiency at their site:

1. evaluating the viability of recovering waste heat for cooling and heating,
2. optimized running of the production equipment and ongoing systematic preventative maintenance.

In May 2010, an energy team was formed to identify opportunities and implement methods to reduce energy use and costs in the plant. The teams undertook projects such as walking through processes to look for signs of unnecessary or inefficient energy use, energy audits, review of bills, historical energy use and energy

efficiency investment options. As a result of these efforts, electric and gas consumption considerable declined. For 2011 GPC will evaluate the possibility to put in place the following initiatives:

- ▶ Control the lighting of areas not in use, addressing draughts, heat loss and air leaks;
- ▶ Continue to improve operating procedures for energy efficiency.
- ▶ Evaluate the possibility to use variable-speed motors, thus saving electricity.

The following table illustrate the global energy consumption except transports, which are considered in § “Other impacts: Transports”.

TAB. 25 ENERGY CONSUMPTION IN 2010, IN GJ

	GTECH	Atronic Americas	GPC
Natural gas consumption	13,009	950	29,909
Electricity consumption	48,658	3,447	25,073
Diesel consumption for back-up generators	55	0	55

Water

GTECH facilities withdraw water from municipal water sources. The Company is not a major user of municipal or other water sources, as water is not a major component of its manufacturing or office operations. GTECH does not currently reuse or recycle water in its facilities⁽⁸⁾.

Atronic Americas only has 2010 water usage data for Scottsdale office. The Grier and Spencer locations have the water included in the lease, and shares the usage with other companies in their respective complexes. In those cases, estimations on water consumption were made based on the number of people working on site.

GPC consumption by the end of the year was at 11,990 m³ while it discharged 6,607 m³ into the industrial and civil sewers. The reduction in water consumption and discharge mainly came from efficiencies in setting up the HVAC systems.

The following table illustrate the global water consumption in 2010.

TAB. 26 WATER CONSUMPTION AND DISCHARGE IN 2010 (m³)

Type of consumption/discharge	Atronic		
	GTECH	Americas	GPC
Consumption - municipal water	35,696	7,126	11,990
Discharge - municipal sewage	28,484	7,126	6,607
Discharge - to the wastewater treatment plant	40	0	0
Discharge - released in the drainfield	1,801	0	0

Waste

In May 2010, GTECH facilities in Providence, West Greenwich, and Coventry began providing specially-marked bins for composting, which turn food scraps and other organic materials into rich soil for farmers. As a result of this initiative, GTECH collected and transferred over 9.2 tons of compostable organic material from its Rhode Island facilities.

Compost means less garbage for GTECH and the landfill and more crops for farmers. Employees were introduced to the program with a free May Day continental breakfast on Monday, May 3, 2010.

(8) Since there is no accurate measurement of wastewater at GTECH branches (excluding Coventry), nor is there any industrial processing using water taking place in these locations except in Coventry, it was assumed that total wastewater was equal in quantity to water consumption.

All GTECH cafeterias in Rhode Island now offer food containers and cutlery that are compostable. This means paper and clear plastic cups and plates along with off-white compostable cutlery from GTECH cafes can be thrown into the same dark-brown bin as your left-over food scraps. When bread, fruit, coffee grounds, other food waste, and organic materials are placed together in a compost container, they undergo a natural process called composting. The result of composting is a soft, sweet-smelling soil that is an essential component of local farms and gardens.

In 2010, Atronic Americas generated approximately 260 tons of waste and sent to recycling 2.3 ton of paper (shredded), 1.6 tons of cardboard and 85.4 tons of scrapped components. The remaining part was disposed in landfills. No hazardous waste was generated.

In October 2010, the sustainability committee of GPC instituted a program to begin separating and recycling cardboard, plastic and other materials used in manufacturing operations. Future projects include for 2011 a single stream recycling program in the Administration areas, recycling of wooden pallets and used photo polymer printing plates.

The following table illustrate the global waste generated in 2010.

TAB. 27 WASTE GENERATED IN 2010 (t)

Type	Sent to recycling	Sent to treatment	Sent to landfill
GTECH:			
Total waste	123	2	241
Of which hazardous waste	0	2	0
Atronic Americas:			
Total waste	104	0	153
Of which hazardous waste	0	0	0
GPC:			
Total waste	1,143	116	103
Of which hazardous waste	0	3	0

Air pollution

Concerning GTECH’s air pollutants emission, most part is due to the fleet supporting the customers. GTECH’s Coventry plant has no particular emission of pollutants to air, except for small quantities derived from natural gas combustion.

Atronic America’s plants have not significant emission due to the kind of production that is carried out. The only air emissions is due to natural gas combustion for heating purposes.

The backbone of GPC production operation is a cutting edge 22-unit Gallus flexographic press system. Each press unit is servo-driven, and can be operated completely on water-based ink systems. Presently, only two units operate using solvent based inks which keeps regulated pollutant emissions to a minimum. Annual regulated air pollutant emission levels are typically less than 25 percent of allowable limits, and GPC is continuously evaluating ways to further reduce its unit emissions. As a matter

of fact, the majority of printing is done using water based inks. Using inks with little to no evaporation and reducing the usage of solvent-based inks result in lower Volatile Organic Compounds (VOC) emissions. Efforts to incorporate more environmentally friendly materials in the protective coatings are ongoing. Other air pollutants emissions are due to gas burners providing heat for the process needs.

The following table illustrate the global pollutants air emissions in 2010.

TAB. 28 POLLUTANTS AIR EMISSIONS IN 2010

Type of pollutant	Atronic		
	GTECH	Americas	GPC
NOx (t)	9	0.04	1.23
SOx (t)	0.0032	0	0.01
CO (t)	129	0.03	1.03
PM (t)	1.1	-	-
Ozone-depleting emissions (kg CFC eq)	0.9	-	-
VOC (t)	-	-	77

In a pledge to reduce waste and help protect the environment, GTECH began its GREEN: a GTECH Pledge initiative in September 2008. Since then, GTECH has made great strides toward reducing its carbon footprint around the world. Most of the GHG emissions are caused by the fuel consumption of the vehicle fleet of GTECH.

Atronic Americas' use of natural gas is low because the only use its for heating the offices and warehouse. Because of warm cli-

mate, there are only a few months in the year that require us to heat the building. Therefore, most CO₂ emissions are due to electricity consumption and the 29 service vehicles.

One of GPC cornerstones of Greenhouse gas emissions reduction program is to use the most energy-efficient mode of running the printing press which uses natural gas for the drying of ink. In 2010, significant drops in CO₂ emissions were achieved.

GPC's Greenhouse gas emissions reduction program is based on the use the most energy-efficient mode of running the printing press which uses natural gas for the drying of ink. In 2010, CO₂ emissions per 1000 produced standard units significantly dropped from 0.00090 to 0.00075. These positive results are attributed to following reasons:

1. Better operating practices involving shutting down of the dryers during activities where it will not impact quality.
2. Monitoring the web at optimal temperatures which reduces amount of natural gas consumed.
3. Lower downtime as operating efficiencies improved.
4. Using faster drying inks.

The following table illustrate the global GHG emissions in 2010.

TAB. 29 GHG EMISSIONS IN 2010 (tCO₂ EQ)

	GTECH	Atronic Americas	GPC
GHG emissions (Scope 1 + Scope 2)	28,243	942	5,257
Scope 1 (Direct) GHG emissions	21,012	430	1,517

Other impacts: Transports

GTECH products are shipped via air, ocean, and trucking. The environmental impact is currently not measured.

GTECH employees are encouraged to use public transportation and ride share or car pool when possible. The Company has offered discounts and incentives for those employees who use public transportation and sells public bus passes in the employee cafeterias.

GTECH's Travel Department works with vendors to secure the most economical end environmentally friendly travel itineraries and has partnered with travel companies that support these goals.

GTECH strives to be environmentally conscious in terms of consumable (paper) products in a variety of ways. In terms of warehousing and distribution, GTECH makes every attempt to locate print vendors as close to the end users as possible thereby reducing the amount of energy it takes to move bulk product from supplier to site. Since there are six domestic printing partners this affords many options. In terms of consumable distribution at the site level, an industry best practice push system is used to replenish retailers with consumables based on usage

rates and not on sales. This effectively manages the inventory and avoids overstocking or hoarding of supplies.

Many of GTECH's domestic contracts require the Company to install, maintain, and service lottery equipment (terminals, communication equipment, central systems, etc.) throughout the United States. In order to fulfill its contractual obligations, the Company utilizes a domestic fleet that fluctuates between 960 and 1010 vehicles. The fleet is comprised of gasoline and diesel powered service vans, as well as gasoline powered sales and marketing vehicles. In 2010, the fleet numbered 998 vehicles (an increase of 32 vehicles or 3%) and consumed 7,964,150 liters of fuel (4,988,690 liters of gasoline and 2,975,455 liters of diesel); an increase of 376,374 liters or 5% from prior year.

Atronic's America gaming technicians are located around the country. They have to drive long distances to support the customers. Atronic Americas currently has 29 vehicles that drove 1,283,451 km in total in 2010. GPC does not own a Company fleet.

TAB. 30 FUELS CONSUMPTION FOR THE FLEET IN 2010 (GJ)

	GTECH	Atronic Americas	GPC
Diesel consumption	108,472	0	0
Gasoline consumption	164,734	5,247	0

Biodiversity

GTECH, Atronic Americas and GPC plants and offices are located in commercial or urban areas and consequently has a negligible impact in terms of protecting the biodiversity of bordering areas. The areas in which GTECH, Atronic Americas and GPC facilities are located are not subject to specific environmental protection.

GTECH, Atronic Americas and GPC did not receive any environmental fines in 2010.