



SUSTAINABILITY REPORT 2010

CLOVER
Innovative Environmental Solutions

FROM OUR CEO'S PERSPECTIVE

As we wind down 2010 and embark upon a new year, we still find ourselves in the midst of a tumultuous economy. Although the feeling of a prosperous year is now more of a reality, consumers and businesses still struggle with choosing short term cost savings or long term environmental sustainability. Fortunately, Clover continues to offer our customers a third option - quality products that are sustainably manufactured and managed, yet more affordable than the OEM alternatives.

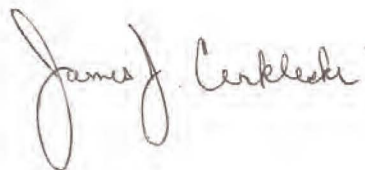
Since issuing our first sustainability report last year, Clover has moved towards a complete vertical integration in order to better provide a total environmental solution for the materials we manufacture. While we have grown tremendously during the last year, we have remained committed to the principal that we must "[meet] the needs of the present without compromising the ability of future generations to meet their own needs."ⁱ

During the last 12 months, we have acquired several businesses to help us strengthen and enhance our commitment to sustainable growth. We expanded our line of aftermarket imaging products and grew our collections processing capacity by acquiring Environmental Reclamation Services (ERS), we enhanced our manufacturing capacity by acquiring West Point Products, and we grew our imaging supplies offering by purchasing Image1.

Another key achievement was conducting our first ever life cycle assessment (LCA) on two of our most popular toner cartridges.ⁱⁱ This assessment quantified the environmental impact of our products' complete life cycles and affirmed the environmental benefits of remanufactured products. However, our successes have not caused us to lose sight of the importance of continuous improvement. The LCA has helped us identify areas where our environmental impact can still be reduced. We included the most significant findings of these LCAs as an integral part of this report.

Accordingly, I am proud to present Clover's second annual sustainability report. We welcome your feedback and input regarding the report's content and our environmental commitments.

Thank you for your continued support,



Jim Cerkeski, CEO





SCOPE OF REPORT

Purpose

This second annual sustainability report will focus on the major environmental impacts of Clover's North American business operations and sales from January 1, 2010 through December 31, 2010. Like that of our business, the focus of this report is on the entire life cycle of the products we collect and manufacture. The purpose of this report is to enhance stakeholder awareness of Clover's environmental stewardship and to foster communication about means to responsibly grow together. This report is issued in March 2011.

Profile

Company:	Clover Holdings, Inc.
Establishment:	1996
CEO:	Jim Cerkleski
Headquarters:	2700 W. Higgins Road Ste. 100 Hoffman Estates, IL 60169
Employees:	5500 worldwide
Annual Revenue:	Over \$450 million

Report Parameters

Reporting period:	1/1/10 through 12/31/10
Previous report issue date:	2/17/10
Reporting cycle:	Annual
Scope:	North American Operations and Sales
Contact:	Sara Leeman Corporate Environmental Manager





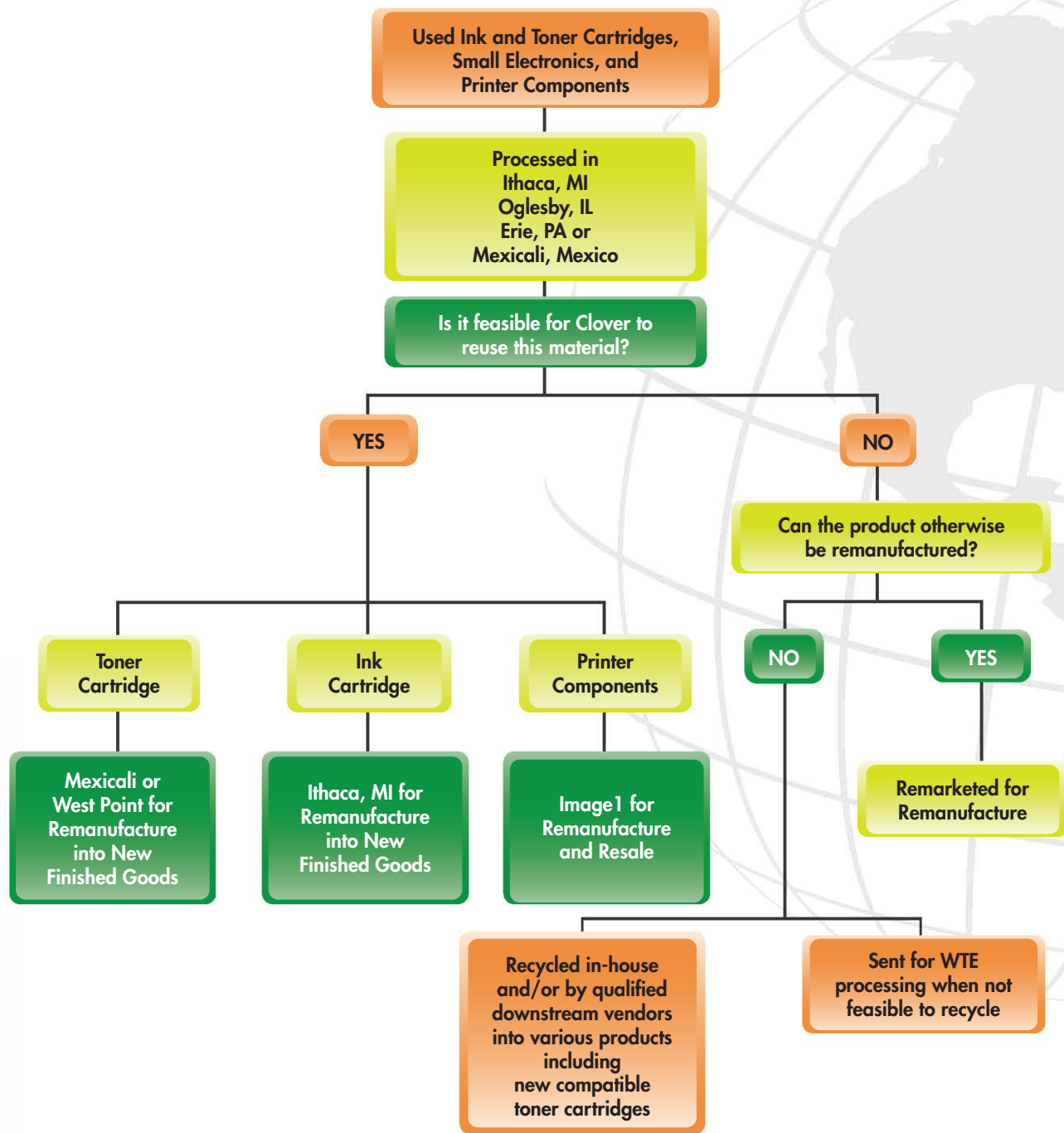
Clover Technologies Group provides closed-loop, vertically integrated environmental solutions for imaging supplies and is the leading remanufacturer and collector of ink and toner cartridges. Clover also offers comprehensive recycling solutions for printer components and small electronics including cell phones. Marketed under a variety of private label brands, the complete line of Clover's quality imaging supplies is available through industry leading resellers and wholesalers.

Clover Environmental Solutions (CES) is the heart of Clover's sustainability efforts. CES is the division of Clover responsible for procuring empty cartridges that sustain our operations, as well as cell phones, other small electronics, and printer components. These collections enable Clover to manufacture quality imaging products while minimizing reliance on virgin non-renewable resources. Clover's collection programs provide our customers the opportunity to further their environmental stewardship.

CES is dedicated to providing our customers with innovative recycling solutions designed to protect the environment. CES provides reuse and recycling solutions to a broad customer base throughout the world. The millions of units collected annually are remanufactured, remarketed or recycled through Clover and our network of strategic partners. The innovative recycling solutions we bring to market are created and



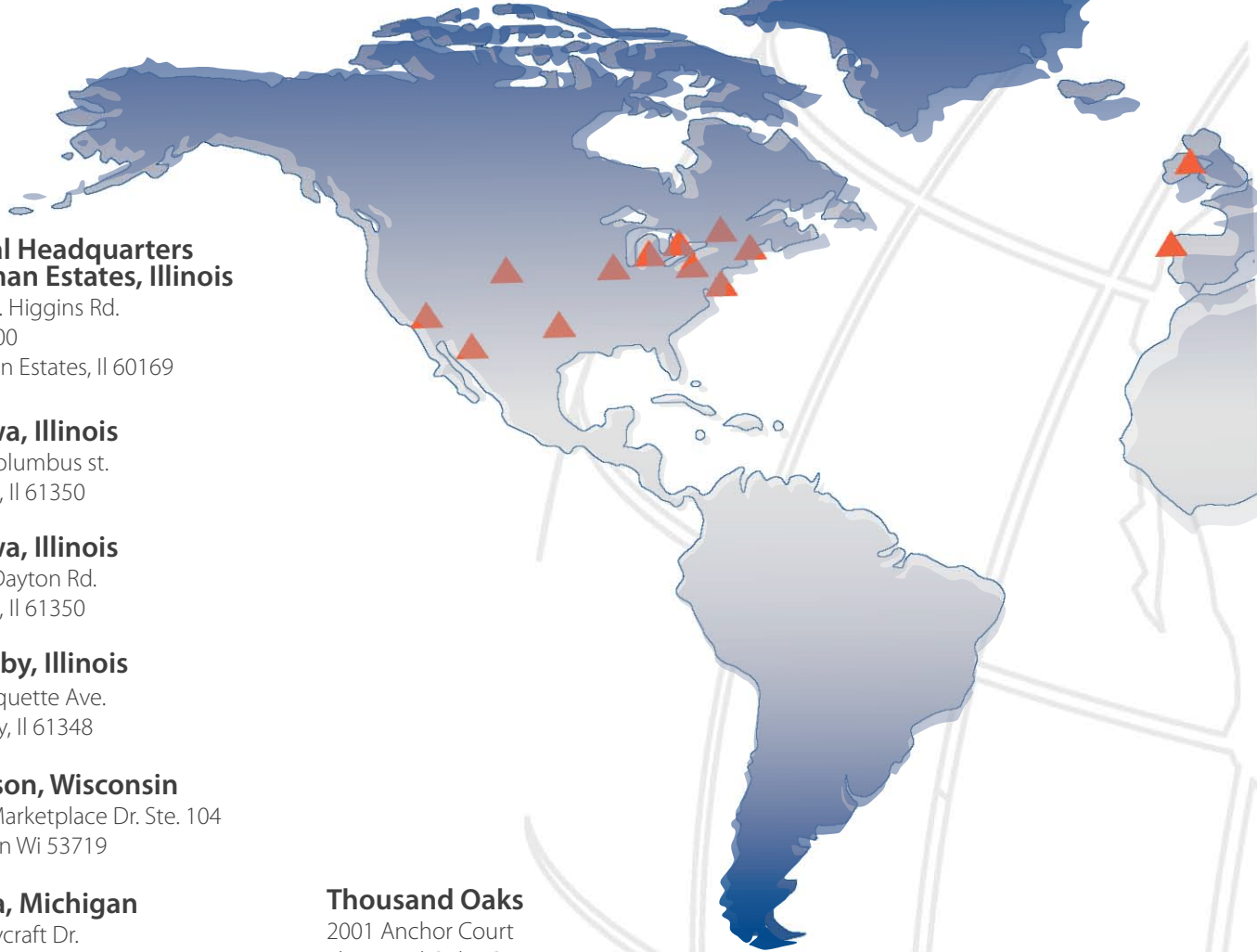
COMPANY OVERVIEW



implemented with an understanding of the impact our company has on the environment. It is our customized and targeted collection programs combined with our industry-leading technology and processes that differentiate CES in the marketplace.

The capacity of CES to provide diversified environmental solutions grew this year when Clover acquired Environmental Reclamation Services (ERS) headquartered in Erie, Pennsylvania, enhancing Clover’s capacity to collect and process empty cartridges, small electronics, and printer components. Clover’s capacity to handle those products was fortified by the additional acquisitions of West Point and Image1 who help manage Clover’s toner cartridges and printer parts, respectively. The process flow chart below shows how Clover’s collections are managed by Clover and its subsidiaries.

GLOBAL FACILITIES



**Global Headquarters
Hoffman Estates, Illinois**

2700 W. Higgins Rd.
Suite 100
Hoffman Estates, IL 60169

Ottawa, Illinois

4200 Columbus St.
Ottawa, IL 61350

Ottawa, Illinois

700 E. Dayton Rd.
Ottawa, IL 61350

Oglesby, Illinois

32 Marquette Ave.
Oglesby, IL 61348

Madison, Wisconsin

2916 Marketplace Dr. Ste. 104
Madison WI 53719

Ithaca, Michigan

100 Raycraft Dr.
Ithaca, MI 48847

Ithaca, Michigan

515 Union St.
Ithaca, MI 48847

Glassboro, New Jersey

308 S. Delsea Dr.
Glassboro, NJ 08028

Plano, Texas

2901 Summit Ave., Ste. 100
Plano, TX 75074

Denver, Colorado

5000 Osage St., Ste. 800
Denver, CO 80221

Thousand Oaks

2001 Anchor Court
Thousand Oaks, CA 91320

Calexico, California

315 Weakley Rd.
Calexico, CA 92231

USA

250 W. Wylie Avenue
Washington, PA 15301
Mfg
PO Box 50, Schoolhouse Lane
Valley Grove, WV 26060

Canada

210 James A. Brennan Road
Gananoque, ON K7G 1N7

Erie, Pennsylvania

380 East Bayfront Parkway
Erie, PA 16507

Farmingdale, New Jersey

1495 Highway 34 South
Farmingdale, NJ 07727-1602

Berkshire

Colthrop Lane, Thatcham
Berkshire, RG19, 4NP

Ontario, Canada

2831 Bristol Circle, unit 1
Oakville, Ontario, L6h 6x5



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LOCATIONS

Mexicali, México

Av. Circulo de la Amistad 2701
Mexicali, BC 21210

Mexicali, México

Av Circulo de la Amistad 2700
Mexicali, BC 21210

Mexicali, México

Marte #162 Parque Industrial
Mexicali, BC 21210

Mexicali, México

Av. Republica de Brasil #2625
Mexicali, BC 21210

Australia

14 Westside Dr.
Laverton North, VIC, 3026

Portugal

Rua 3 e 5 lotes 17/18b,
Zona Industrial de Varziela
Arvore 4480-091,
Vila do Donde 21210

Ireland

Office 6, 9a Plato Business Park
Damastown Business Centre
Dublin, Ireland 21210

Singapore

Block 30
Kallang Place #4-16/20
Singapore 339159

Vietnam

Bau Cap Aamlet
Nhuan duc Commune
Cu Chi District
Ho Chi Minh City, Vietnam

ENVIRONMENTAL POLICY



To consistently meet or exceed the expectations of our customers by ensuring superior product quality and service, by preventing pollution from Company operations, and through compliance with applicable legal requirements and with other requirements relating to Company environmental aspects to which the Company subscribes.

Continual improvement of this policy is achieved through a combination of rigorous process management, employee empowerment, and accountability for achieving all corporate goals and objectives.

KEY IMPACTS DOING MORE WITH LESS

*"Industries and industrial operations should be encouraged that are more efficient in terms of resource use, that generate less pollution and waste, that are based on the use of renewable rather than non renewable resources, and that minimize irreversible adverse impacts on human health and the environment."*ⁱⁱⁱ



*T*he notion of sustainable development was introduced to the world in a report to the United Nations^{iv} in 1987. The report was written in response to a deep concern over both the speed and apparent irreversibility with which the earth's natural resources were being squandered. The report was written with the objective to raise the levels of understanding and commitment to action of individuals and businesses and was hailed as the most important document on the future of the world when it was released.^v The principles that it established on sustainability still resonate, especially in the ever progressing electronics industry. Those principles were used as a roadmap in the creation of this report and excerpts from

"Our Common Future" are included herein to provide direction, both through this report and in our sustainability efforts.

This year, to better the sustainability of Clover's vertically integrated closed loop solution for the products we manufacture, Clover had two life cycle assessments (LCA) conducted on two of our most popular toner cartridges. In these assessments, the cartridge life cycle was broken into five stages: cartridge materials, finished cartridge packaging, manufacturing energy, transportation to the customer, and cartridge end-of-life. The following discussion is also presented in that format.

SUSTAINABLE COMPOSITION

"Sustainable development involves more than growth. It requires a change in the content of growth, to make it less material- and energy-intensive and more equitable in its impact."^{vi}

The results of the LCA showed that the aspect with the greatest weight on Clover's overall environmental impact was the materials required to manufacture the cartridge. When normalized as a percentage of the equivalent OEM total, which contributed over 78 percent, materials of the tested Clover cartridge contributed 32 percent, or over **46 percent less than the OEM**, to the cartridge's environmental impact.^{vii} Materials have the greatest environmental impact on the cartridge's life cycle, making especially significant the materials Clover uses to build its finished goods.^{viii}

In 2010, **88 percent of Clover's collections were reused**.^{ix} This breaks down to **29.9 million ink cartridges, 9.1 million**

toner cartridges, and 23,000 printer components. These reused collections contained approximately **11.9 million pounds of plastic and nearly 9 million pounds of metals.**

By manufacturing new products from these materials instead of virgin materials, the total renewable and nonrenewable energy needed during the life cycle of the materials can be conserved. The energy conserved amounts to over **803 billion Btus**, which is equivalent to **138,406 barrels of crude oil**, enough energy to power **18,420 single family homes for one entire year**.^{xii}



The post consumer recycled content by weight of the average empty ink cartridge manufactured by Clover is

97%



88%
*of Clover's collections
were resued*

To ensure that the quality of Clover's manufactured products is as good as or better than that of their OEM equivalents, not all parts of a collected cartridge can be reused. The post consumer recycled content by weight of the average empty ink cartridge manufactured by Clover is **97 percent**. The post consumer recycled content by weight of the average empty toner cartridge manufactured by Clover is **90 percent**.

By "mining" these materials from the waste stream instead of from the earth, the nonrenewable resources with which these cartridge materials are created can be conserved. The reuse

of these materials prevents as much carbon dioxide, the predominant greenhouse gas, as 6,364 acres of pine forest would capture in one year.^{xiii} In addition, the LCA conducted on Clover's toner cartridge showed that such reuse had an environmental impact on natural resources that was 51% less than that of the OEM.



ROBUST PACKAGING FOR EXTENDED USE

"Industry and its products have an impact on the natural resource base... These impacts may be positive, enhancing the quality of a resource or extending its uses. Or they may be negative, as a result of process and product pollution and of depletion or degradation of resources."^{xiv}



Clover has taken great strides in 2010 towards more sustainable packaging. This past year, Clover introduced two new packing inserts, one made from used plastic and the other from used paper products. Both new inserts are used for stability and are substitutes for plastic inserts not made from recycled materials. **Both new inserts have 100 percent post-consumer content**, and together, are used in the packaging of seven percent of our finished goods.

The great majority^{xv} of our finished goods requiring inserts now rely on corrugate as insulation during their travels to the customer. Over 81 percent now use corrugate inserts, approximately **70 percent of which have 100 percent recycled content**.^{xvi}

The life cycle analyses that contrasted Clover's cartridges to the OEM found that packaging was the one aspect of the Clover cartridge life cycle that carried a greater environmental burden than did that of the equivalent OEM. This higher environmental burden is the intentional result of Clover designing its packaging so that the empty cartridge can be safely returned to Clover. By using a relatively heavy corrugate in construction of our robust packaging, Clover is able to reclaim the cartridges it manufactures to "close the loop" and more greatly enhance the environmental benefit of the remanufactured cartridge.

NECESSARY FUEL FOR OUR SUSTAINABILITY

“Energy is necessary for daily survival. Future development crucially depends on its long-term availability in increasing quantities from sources that are dependable, safe, and environmentally sound. At present, no single source or mix of sources is at hand to meet this future need.”^{xvii}



Although the normalized contribution of manufacturing energy to the environmental impact of the LCA was minimal at less than two percent, the energy needed throughout the life cycle of Clover’s products is significant because it is a proxy for green-house gas emissions and other environmental impacts caused by energy consumption. The life cycle energy demand of the

representative toner cartridge studied in the LCA was **48 percent less** than that of the equivalent OEM.^{xviii}

The energy available to Clover’s facilities is generated primarily from non-renewable sources. To encourage the growth and availability of renewable energy and to neutralize part of our environmental impact in 2010, Clover

offset **more than 100 percent of the electricity consumed** by its facilities in North America throughout the entirety of the previous year. This offset was achieved by the purchase of renewable energy credits that support electricity production by clean and renewable wind.

DRIVING TO ENHANCE OUR ENVIRONMENT

"Industry extracts materials from the natural resource base and inserts both products and pollution into the human environment. It has the power to enhance or degrade the environment; it invariably does both."^{xix}



// ZERO-WASTE-
TO-LANDFILL
POLICY //

To minimize the environmental impact of the transport of Clover's products, Clover established a new processing facility by its acquisition of ERS in Erie, Pennsylvania. The processing of collected materials at this new location will prevent many collections from traveling to Clover's primary processing facility in Mexicali, which is nearly **2,400 miles away**. In the 49 days that remained in 2010, after the acquisition of ERS, nearly 9 percent of the units collected by Clover were processed at ERS.

// CLOVER COLLECTED OVER
44.36 MILLION
INK AND TONER CARTRIDGES
AND OVER
93,000
CELL PHONES, SMALL ELECTRONICS,
AND PRINTER COMPONENTS //



PROGRESSING SUSTAINABILITY AT END-OF-LIFE

"Pollution is not the synonym of progress and therefore the time has come for new development concepts to come up. Pollution should not be a synonym of progress because we know that pollution is controlled and when you do not control pollution you are transferring this pollution to the community of the whole."^{xx}

Clover prevented
24.7
*million pounds of plastics,
metals, and electronic
components from
reaching landfills.*

Clover operates under a Zero-Waste-to-Landfill Policy to ensure that materials collected for remanufacturing will not go to landfill. Pursuant to this policy, Clover evaluates every empty cartridge, small electronic or printer component that is received; first for remanufacturing and second for material recovery through recycling. Collections that can be remanufactured by Clover will be disassembled so that as many components as possible can be reused. If these collected materials cannot be remanufactured, they will not be sent to landfill. If recycling is not feasible, the collected materials will be sent to our waste to energy partner to be used as a renewable power source.^{xxi} If collected materials must be recycled, useful products are produced that substitute for virgin resources.

In 2010, Clover collected over **44.36 million ink and toner cartridges, and over 93,000 cell phones, small electronics and printer components**, which means nearly **24.7 million pounds** of plastics, metals, and electronic components were prevented from reaching landfills.

Of these collections, **12 percent of Clover's collections were recycled** and one percent went for waste-to-energy conversion. Clover's collections that were recycled prevented the same amount of carbon dioxide than nearly 78,000 new pine trees grown for 10 years.^{xxii}



BROADENING OUR PERSPECTIVE

"Industry's response to pollution and resource degradation has not been and should not be limited to compliance with regulations. It should accept a broad sense of social responsibility and ensure an awareness of environmental considerations at all levels."^{xxiii}

// CLOVER WILL BECOME
CERTIFIED
UNDER THE
RESPONSIBLE
RECYCLING
("R2") PRACTICES //

Clover will become certified **under the Responsible Recycling ("R2") practices** in 2011. With this voluntary commitment to the R2 practices, Clover will enhance the transparency of its environmental practices beyond, according to the EPA, what it is able to legally require.^{xxiv} Adherence to the R2 practices will guarantee that certain materials collected by Clover that warrant greater care due to their potential adverse environmental effects are managed by capable and responsible downstream vendors.

This report has demonstrated our continued dedication to advancing our sustainability initiatives by evolving our business practices and processes. With your continued support of Clover Technologies Group, we will continually improve our efforts towards sustainable development. Please contact us to share your thoughts about our sustainability efforts so we can continue to grow together, responsibly.

CERTIFICATIONS & PARTNERSHIPS

ISO 14001

Clover's collection, processing, warehousing, and distribution of cell phones, inkjet and laser cartridges are ISO 14001 certified. ISO 14001 is the international specification for an environmental management system (EMS).

ISO 9001

The design, remanufacturing, and distribution of inkjet and laser cartridges is ISO 9001 certified. ISO 9001 is a family of standards and guidelines for quality in the manufacturing and service industries from the International Organization for Standardization (ISO). ISO certification ensures that the processes that develop the product are documented and performed in a quality manner.

US EPA WasteWise

WasteWise is the country's first national voluntary solid waste reduction program. WasteWise encourages organizations to reduce municipal solid waste through waste prevention, recycling, and buying or manufacturing recycled products. Through this partnership, Clover has established the goal to reduce its waste generation by 10-percent in one year.

US EPA Green Power Partner and Leadership Club

Green Power Partnership is a voluntary program that supports the organizational procurement of green power, which is electricity produced from a subset of renewable resources, such as solar, wind, geothermal, biomass, and low-impact hydro. Because Clover substantially exceeds EPA's minimum purchase requirements for an organization-wide commitment by displacing 100-percent of its US facility's electricity consumption, it has become a member of the Leadership Club.

3Degrees

3Degrees enables businesses and individuals to fund clean energy and carbon reduction projects. It does this by originating and providing certificates and carbon offsets from around the world to help their partners reduce their environmental footprint. Clover purchases enough renewable energy credits from 3Degrees to displace the impact of electricity consumption of all US Clover facilities.

Sustainable Forestry Initiative®

All vendors providing final exterior packaging for Clover's finished inkjet and laser cartridges are certified by the SFI program, which is based on the premise that responsible environmental behavior and sound business decisions can co-exist. Each of these partners has been SFI-certified to practice sustainable forestry on all lands it manages.

Forest Stewardship Council

All vendors providing final exterior packaging for Clover's finished inkjet and laser cartridges are also certified by the FSC program. The FSC label provides a credible link between responsible production and consumption of forest products, enabling consumers and businesses to make purchasing decisions that benefit people and the environment as well as providing ongoing business value.

Illinois Recycling Association Member

Through this membership, Clover encourages the responsible use of resources and works to find profitable and environmentally innovative solutions to waste reduction.

ⁱ Defining "sustainable development," Our Common Future, The World Commission on Environment and Development, Oxford University Press, 1987, p. 43.
ⁱⁱ Life Cycle Assessment Final Report: Energy and Environmental Impact Comparison of the Hewlett Packard LaserJet Q2612A (12A) Toner Cartridge and the Sustainable Earth by Staples™ Remanufactured Counterpart, Rochester Institute of Technology, 17Dec10 (12A LCA), and Life Cycle Assessment Results: Energy and Environmental Impact Comparison of the Hewlett Packard LaserJet Q1338A (38A) toner cartridge and the Sustainable Earth by Staples™ remanufactured counterpart, Rochester Institute of Technology, 22Dec10 (38A LCA).
ⁱⁱⁱ Our Common Future, 1987, p. 213.
^{iv} Referring to Our Common Future, 1987.
^v Our Common Future, 1987, back cover.
^{vi} Our Common Future, 1987, p. 54.
^{vii} 12A LCA, p. 4.
^{viii} 12A LCA, p. 4.
^{ix} This number includes all collected materials not recycled.
^x Cumulative energy demand derived from 12A LCA, Appendices C and D.
^{xi} LCA, citing U.S. Energy Information Administration, Energy Units and Calculators Explained, http://tonto.eia.doe.gov/energyexplained/index.cfm?page=about_energy_conversion_calculator, accessed Aug 16, 2010. 6.3 megajoules = 5971 Btu. 1 kWh = 3,412 Btu. 1 barrel of crude oil = 5,800,000 Btu. 1 therm natural gas = 100,000 Btu.
^{xii} LCA, citing EIA (2008). 2005 Residential Energy Consumption Survey, Table US-3, Total Consumption by Fuels Used, 2005, Physical Units. In 2005, there were 111.1 million homes in the United States; of those, 72.1 million were single-family detached homes and 7.6 million were single-family attached homes for a total 79.7 million single-family homes nationally. On average, each single-family home consumed 12,773 kWh of delivered electricity. A single-family home is defined in the U.S. Department of Energy's Residential Energy Consumption Survey as follows: A housing unit, detached or attached, that provides living space for one home or family. Attached houses are considered single-family houses as long as they are not divided into more than one housing unit and they have independent outside entrance. A single-family house is contained within walls extending from the basement (or the ground floor, if there is no basement) to the roof. A mobile home with one or more rooms added is classified as a single-family home. Townhouses, rowhouses, and duplexes are considered single-family attached housing units, as long as there is no home living above another one within the walls extending from the basement to the roof to separate the units.
^{xiii} EPA's Greenhouse Gas Equivalencies Calculator used to find that 29522.58 metric tons of carbon dioxide equivalent (MTCO2E) has the equivalency results as that many acres of pine or fir forests. Growing forests store carbon. Through the process of photosynthesis, trees remove CO2 from the atmosphere and store it as cellulose, lignin, and other compounds. The rate of accumulation is equal to growth minus removals (i.e., harvest for the production of paper and wood) minus decomposition. In most U.S. forests, growth exceeds removals and decomposition, so there has been an overall increase in the amount of carbon stored nationally. <http://www.epa.gov/cleanenergy/energy-resources/calculator.html>, last access on January 12, 2011.
^{xiv} Our Common Future, 1987, p. 208.
^{xv} Corrugate: 81.5%, Molded pulp: 6.9%, Plastic air cells: 5.7%, Foam-in-place: 5.6%, Molded recycled plastic: 0.3%
^{xvi} The other approximately 30 percent contains 37 percent recycled content.
^{xvii} Our Common Future, 1987, p. 168.
^{xviii} 12A LCA, p. 4.
^{xix} Our Common Future, 1987, p. 206.
^{xx} Our Common Future, 1987, p. 215.
^{xxi} US EPA on WTE: "Because no new fuel sources are used other than the waste that would otherwise be sent to landfills, MSW is often considered a renewable power source." <http://www.epa.gov/cleanenergy/energy-and-you/affect/municipal-sw.html>, last accessed on January 11, 2011.
^{xxii} EPA's Greenhouse Gas Equivalencies Calculator used to find that 3040.17 metric tons of carbon dioxide equivalent (MTCO2E) has the equivalency results as that many medium growth coniferous trees, planted in an urban setting and allowed to grow for 10 years. <http://www.epa.gov/cleanenergy/energy-resources/calculator.html> last accessed on January 12, 2011.
^{xxiii} Our Common Future, 1987, p. 222.
^{xxiv} Electronic Waste: Considerations for Promoting Environmentally Sound Reuse and Recycling, United States Government Accountability Office, Report to the Chairman, Committee on Science and Technology, House of Representatives, July 2010.



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