

Case Study: Less Waste Challenge, Toner Recycling Program



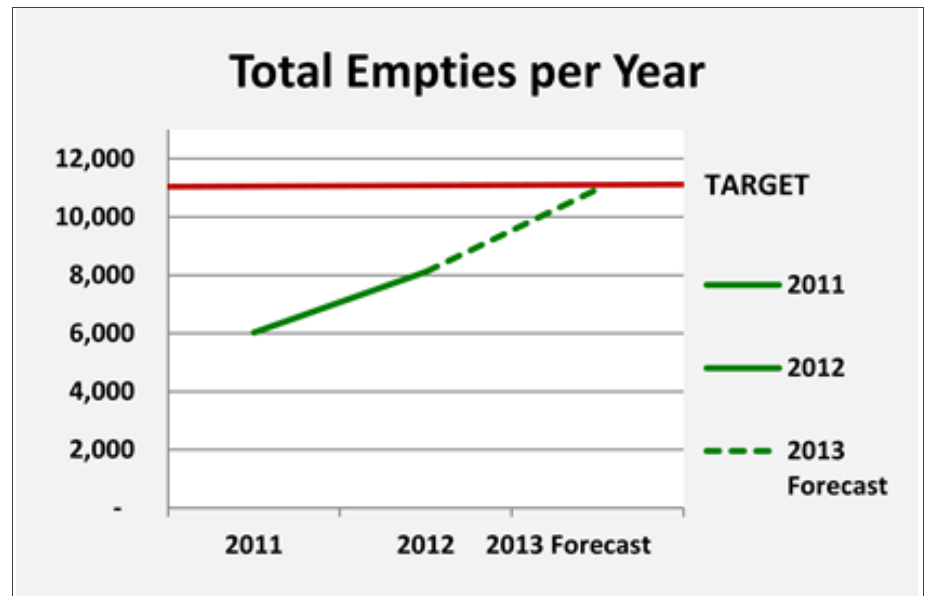
Summary

Partners HealthCare uses thousands of imaging products (ink and toner cartridges) for printing, copying, and faxing. Ink and toner cartridges, when not recycled usually end up in landfills. As part of its sustainability and Patient Affordability program, Partner's sought to grow a closed loop manufacturing process in partnership with Roxbury Technology and to prevent cartridges from ending up in landfills.

Partners HealthCare and Roxbury Technology Toner Recycling Program

The Situation

Partners HealthCare uses thousands of imaging products (ink and toner cartridges) for printing, copying, and faxing. Ink and toner cartridges, when not recycled usually end up in landfills. As part of its sustainability and Patient Affordability program, Partner's sought to grow a closed loop manufacturing process in partnership with Roxbury Technology and to prevent cartridges from ending up in landfills.



Collected cartridges are re-manufactured at Roxbury Technology's facility at Hyde Park, Massachusetts, and tested to meet or exceed OEM standards. If an empty cartridge is damaged or not able to be reused, it is recycled into component parts. The cartridges are disassembled and the plastic ground and then extruded to create pellets. About 90 percent of the cartridge by weight is plastic. The pellets are sold in the open market as reprocessed raw material for injection molding, and at least some of it is used in the production of new office supplies. Metal pieces from the disassembled cartridges are also processed and either reused or recycled.

About Partners HealthCare

Partners HealthCare, based in Boston, Massachusetts consists of 15 principal facilities in Boston and eastern Massachusetts providing acute inpatient care, ambulatory care and rehabilitation with a total of approximately 3,300 beds. Including administration, the total built assets amount to 16 million square feet, of which approximately 10 million SF is owned and six million SF leased.

Actions

- In 2001, Partners HealthCare began a limited program to purchase recycled laser and inkjet toner cartridges from a start-up company, Roxbury Technology, through our office supply vendor, Staples.
- In 2008, Staples and Roxbury Technology agreed to pick up and take back used toner cartridges, creating a closed loop manufacturing process. In response, Partners expanded the program to additional administrative sites.
- In 2009, after evaluating the success of the closed-loop system, Partners added hospitals to the program for the first time.
- From June 2012 through June 2013, Partners spent \$4.9 million dollars on inkjet cartridges and laser toners. \$1.04 million dollars, approximately 21% of inkjet cartridges and laser toner spend were on re-manufactured products.
- In 2013, with the growth in capacity and capabilities of Roxbury Technology, Partners has committed to purchasing only re-manufactured cartridges system-wide.

Today Partners HealthCare is committed to working with Roxbury Technology LLC, a local minority / woman owned business, specializing in the recycling and re-manufacture of ink and toner cartridges and will put into practice printer and re-manufactured toner and cartridge purchase standardization system wide.

Implementation Process

Following pilot programs within administrative, research and clinical space the team was able to apply lessons learned for a system wide launch.

Working with Roxbury Technology, the implementation process involved:

1. Understanding the Current State

Analyze and determine ink and toner cartridge usage, types of cartridges, volume of empties to be recycled at specific sites within a given period.

2. Plan and Implement Toner Recycling Program

Define program goals and objectives, critical success factors such as recycling bin needs and location at strategic collection points (e.g. mail room, loading dock), impact on building operations and infrastructure, and schedule for collection (as in recurring weekly, bi weekly, month or “will call”). Once these factors are resolved for each site, launch the program.

Benefits/Results

Savings to Partners range from 30-50 percent, depending on the cartridge type, by switching from OEM (original equipment manufactured) to re-manufactured ink and toner cartridges.ⁱ

The Team

- Facilities Director & Managers
- Green Team Members
- Sustainable Initiatives Team
- Roxbury Technology
- Staples

A laser cartridge adds approximately 2.5 pounds of metal and plastic to our landfillsⁱⁱ and requires up to 3.5 quarts of oil to manufacture.ⁱⁱⁱ To date, Partners has collected, recycled and diverted 18,867 empties from our landfills.

Challenges and Lessons Learned

1. Educating Partners employees on the benefits of recycling empties.
2. Identifying champions at each site to setup and manage the program.
3. Identifying location points for recycling bins and scheduling pickup of empties (especially challenging within leased space).

Endnotes

- i. International Imaging Technology Council, <http://www.consumerchoice.info/faq.htm>, February 2009
- ii. International Imaging Technology Council, <http://www.Consumerchoice.info/faq.htm>, Oct. 2008 Page 1
- iii. Recharger Magazine

