

# Visant

ESTIMATED CUMULATIVE RESULTS (2011-2013)

Visant is a leading marketing and publishing services enterprise servicing the school affinity, direct marketing, fragrance and cosmetics sampling, and educational and trade publishing segments.

Phoenix Color, a Visant business, is a premier full-service, full-color printer with over 30 years of superior print experience.

**\$3.2M**  
ADDED REVENUE FROM RECYCLING

**17,000**  
TONS OF WASTE RECYCLED

## Key Environmental Performance Area: GREENHOUSE GAS EMISSIONS (FACILITIES)

### RESULTS

In 2010, as part of the Green Portfolio Program, Visant began actively measuring energy consumption as a component of GHG emissions in its Phoenix Color facility in Hagerstown, Maryland.

In absolute terms, GHG emissions from the production facility have decreased approximately 2% compared to a 2009 baseline. Over the same time period, efficiency has decreased by 9% (GHGs/impression)<sup>1</sup> at the production facility<sup>2</sup>. However, between 2012 and 2013, absolute GHGs declined by approximately 3% while efficiency improved by 7%.

Since the baseline was established in 2009, several factors have occurred that have resulted in a decline in GHG efficiency. First, Phoenix Color has replaced older non-UV presses with UV presses, which increase energy use per impression. The utilization of UV presses has many benefits, including shortening the production cycle, reducing volatile organic compounds (VOCs) and toxic air pollutants (TAPs), and increasing Phoenix Color's ability to decorate and enhance their customer's products. Another factor relevant to the decline in efficiency is the relocation of Phoenix Color's book manufacturing division to its Hagerstown plant, which causes an increase in electrical usage, but not a like increase in impressions, as used by the GHG emission efficiency calculation. Finally, some of the decrease in efficiency since 2009 is due to a general market decline in the overall print industry, which leads to a decline in the number of impressions, which results in less of the fixed energy costs being able to be spread across total impressions.

While Phoenix Color's overall GHG efficiency since 2009 has declined, the company recognizes the importance to reduce its overall energy usage. Over years, Phoenix Color has taken steps and continues to take steps to reduce its energy consumption. Such steps have been to replace an aging cooling tower with one that is highly efficient, replacement of older presses with new energy efficient presses, conversion of lighting to LED technology and installation of a facility wide energy management software and monitoring system.

#### Visant (Phoenix Color): Facility GHG Efficiency (2009 Baseline)<sup>3</sup>

Estimated Results	2010	2011	2012	2013	Total
Change in productivity (GHGs/impression)	9%	9%	-1%	-7%	9%
Change in absolute GHGs	3%	-5%	3%	-3%	-2%

**Notes:**

- See methodology section for description of avoided and efficiency calculations.
- The total % change is aggregate change between the baseline year and the most recent year of data. All other % changes are expressed as year-over-year.
- Reported numbers are rounded and may not produce the same results when used to analyze percent changes or total impact.

## ACTIONS

In 2013, Phoenix Color implemented the following practices:

- Installed energy efficient boiler
- Replaced exterior HPF lighting with LED lighting
- Began implementation of an Energy Management System
- Conducted air leak surveys and started corrective actions

## FUTURE PLANS

Through 2014 and for 2015, Phoenix Color is continuing to focus on improving its energy efficiency and is considering or actively implementing the following practices:

- Replace interior office T5 fluorescent lighting with LED lighting
- Continue to modernize current production equipment with more energy efficient equipment, such as UV lighting systems for the presses
- Continue implementation and expansion of the Energy Management System
- Integrate house chilled water system to stand alone equipment

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### **Key Environmental Performance Area:** **WASTE RECYCLING (FACILITIES)**

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## RESULTS

In 2010, as part of the Green Portfolio Program, Visant continued actively measuring waste recycling in its Phoenix Color facility in Hagerstown, Maryland.

In absolute terms, waste recycling from these sources has decreased 9% compared to a 2010 baseline. Over the same time period, efficiency has stayed relatively flat (tons of waste recycled/impression) at the production facility. Both trends are primarily due to a reduction in overall recyclable waste produced. However, between 2012 and 2013, absolute recycling and recycling efficiency both increased by approximately 13%. Phoenix Color has recycled an estimated 17,000 tons of waste and earned almost \$3.2 million in added revenue since 2010.

## Visant (Phoenix Color): Waste Recycling (2010 Baseline)

Estimated Results	2010	2011	2012	2013	Total
Waste recycled (tons)	4,700	4,300	3,800	4,300	17,000
Revenue impact	\$872,000	\$933,000	\$857,000	\$492,000	\$3,154,000
Change in productivity (tons of waste recycled/impression)		5%	-16%	13%	0%
Change in absolute waste recycled		-9%	-12%	13%	-9%

**Notes:**

- See [methodology section](#) for description of avoided and efficiency calculations.
- The total % change is aggregate change between the baseline year and the most recent year of data. All other % changes are expressed as year-over-year.
- Reported numbers are rounded and may not produce the same results when used to analyze percent changes or total impact.

## ACTIONS

In 2013, Phoenix Color implemented the following practices:

- Implemented waste tracking processes and procedures in the production areas to better understand the sources of waste
- Evaluated job production system waste

## FUTURE PLANS

Through 2014 and for 2015, Phoenix Color is continuing to focus on improving its waste reduction and recycling and is considering or actively implementing the following practices:

- Continue to evaluate and adjust job production system waste calculations
- Reduce waste during press make-ready process

Visant (Phoenix Color) enrolled in the Green Portfolio Program in 2010 and is reporting results for the third time.

In addition to the efforts around energy and paper waste, Phoenix Color continues to focus its resources and efforts in other areas of conservation/waste reduction. Some examples of these efforts are:

- Drilled a well for process cooling water, this reduces its demand on the municipal water system
- Researching gray water retention to further reduce the need for municipal water
- Capturing condensation from air compressors, process air and HVAC systems to route to existing cooling towers, further reducing the need for treatment or supply of municipal water
- Testing and researching of non-hazardous chemicals to replace or reduce existing hazardous chemicals
- Allowing unused land on the property to become a natural environment, which reduces mowing, and therefore, GHG emissions
- Implementing LEAN continuous improvement processes

*Note: Reported numbers are rounded and may not produce the same results when used to analyze percent changes or total impact.*



1 "Impression" refers to a single sheet being printed through a press. In 2013, the 2012 impression count was updated with more comprehensive data. The past results were restated with the updated impression count.

2 Data used in this analysis refers to the entire Hagerstown, Maryland facility, including office space attached to the production facility.

3 In 2013, GHG calculations were updated in order to align with the Environmental Protection Agency eGRID 2014 v1 year 2010 emissions factors released in February 2014. The results for prior years were recalculated using the EPA 2014 ratios and thus may not be comparable to previously reported results