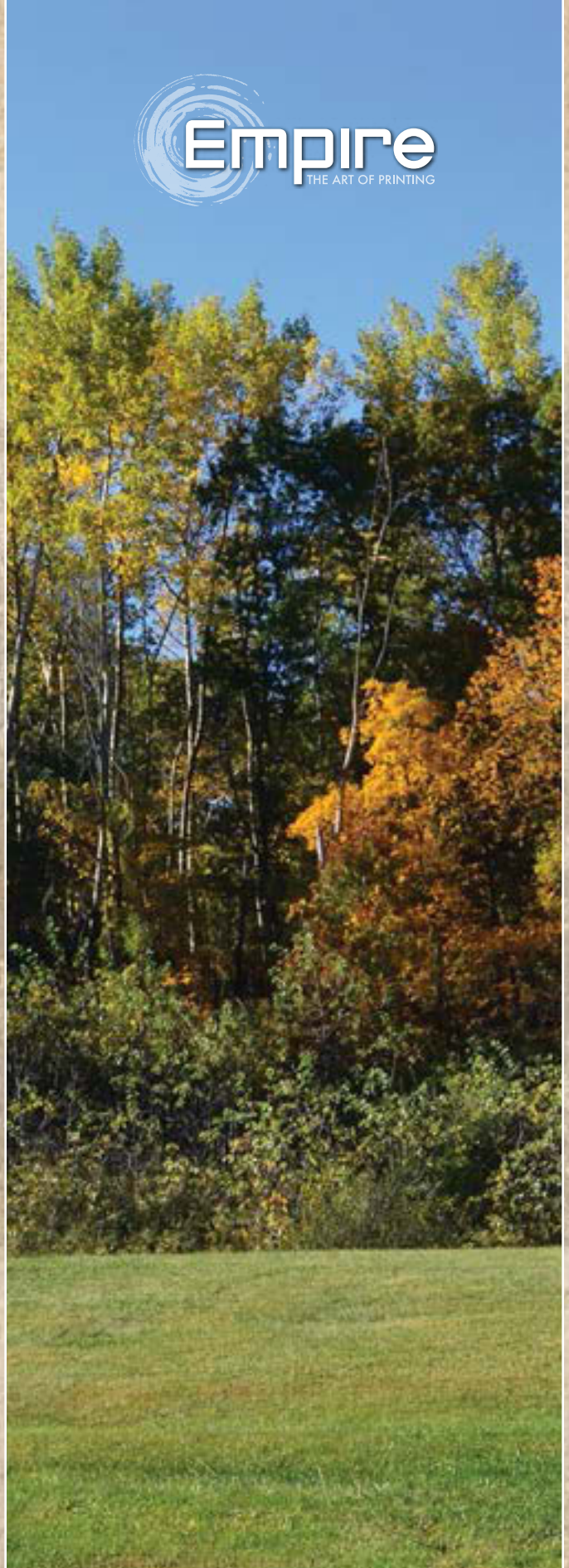


Empire screen printing

EMS Annual Report

Fiscal Year 2015-2016



Printing with Purpose

EMPIRE SCREEN PRINTING

EMS Annual Report

Fiscal Year 2015-2016



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Our Company Mission

At Empire, we are dedicated to being a cutting-edge print supplier. We create custom products that enrich our customers' brand and identity by providing a friendly, knowledgeable customer experience every time.

Our Company Vision

Empire is customer focused. We listen to both our internal and external customers and look to improve based upon their input. Through relentless pursuit of customer satisfaction, we work to grow our customer base and make our company strong. We develop our people by investing in education and training to empower them to make improvements to the products, services, processes and themselves. We concentrate on implementing sustainable production methods that are environmentally safe to protect our planet for future generations.

Our Core Values

- Respect
- Integrity
- Responsibility
- Continual Improvement
- Knowledge
- Excellence

Sustainability's goal is to create possibilities, not to limit options.



Sustainability: It's the right thing to do, it's the smart thing to do, it's the profitable thing to do.
- Hunter Lovins

Empire Screen Printing on a foggy morning / photo credit: Jennifer Schloesser (Empire Creative Director)

Executive Summary

Adopting a **Sustainable Business Ethic** is vital in today's workplace, and requires a strong commitment by management and employees. Businesses need to take a socially responsible, long-term strategic view of sustainability and build it into key value creation that drives return on capital growth. Each company's journey along this path is unique, and our journey is no different. At Empire Screen Printing, we print with purpose.

Resourcefulness has always been an integral part of our company culture since Jim Brush first opened Empire's doors. Guided by our core values of respect, integrity, responsibility, continual improvement, knowledge and excellence over the past 50+ years, we have redefined what it means to be a sustainable printer.

Our process does not drive people. Our people drive the process through lean manufacturing principles, advocating a relentless pursuit of continuous improvement, quality and service. Empire is creating and sustaining a culture of solution-based problem solving techniques through lean practices and environmental awareness.

President's Statement

People, Purpose, Passion - Pathway to Success.

When I became president of Empire in 2009, we worked on our Company Vision, Mission and Core Value statements. We needed to make something that was not visible, visible to everyone who associated with Empire. Our first National Sales Meeting in 2010 was to let our reps know who we were as people. We set up training and shared our vision with them.

This year's National Sales Meeting went beyond that. It was an unusual industry event: we invited vendors AND competitors. When asked "Why would you invite the competition?" I said "They have screening presses, laminators and die presses, so the only difference is our people. I am not afraid."

Our culture at Empire says we do not settle for good, but strive for greatness. Our National Sales Meeting and Vendor Show represents who we are at our core: we are industry leaders in environmental processes, we print without polluting and we share with our competitors and suppliers for the betterment of all.



John W. Freismuth
John Freismuth, President

Our Environmental Vision

Empire's **Focus** is providing our customers with products and services that produce sustainable results and business practices. Through our relentless pursuit of customer satisfaction we will grow Empire's customer base and strengthen our company. We will strive to improve our process by listening to our customers, collaborating with our business partners and developing our people through education and training. Our employees will be empowered to continually make improvements to the process, their work environment and themselves. We will develop production methods that implement sustainable environmental, health and safety (EHS) practices into all aspects of our operations.

We **Commit** to being compliant with all applicable EHS and labor regulations (Federal and State). We will continue to implement programs and procedures in accordance with these requirements.

We **Pledge** to look for new opportunities and innovations that will help enhance and improve our sustainability program beyond regulatory compliance. We will strive to incorporate activities and procedures that will reduce our impact on the environment as well as improving the quality of health and wellness of the employees. We will measure our progress through regular audits and annual reviews.

Empire will **Strive** to implement procedures to target prevention of activities, services or products that may cause harm to human health, safety, or the environment. These procedures will be designed to affect Empire and/or the surrounding community.

We will **Communicate** our sustainability commitment to our employees, vendors, customers and community through educational training and marketing. We will encourage their input on meeting our goals and improving our procedures.

On June 14-15, 2016, Empire Screen Printing underwent an independent third-party audit of the Environmental Management System (EMS) implemented and maintained at Empire. The information below was documented by the external auditor:

The results of the audit indicate that the Empire Screen Printing EMS is in conformance with the requirements found in 299.83 (dg) of the Environmental Results Program and that the Empire EMS is functionally equivalent to the ISO 14001:2004 standard.

Environmental Intelligence, Inc. (EII) was retained by Empire Screen Printing, Inc. to perform the audit. Dr. Douglas B. Johnson, an Exemplar registered Lead Auditor of ISO 14001 EMS (Reg # E052711), represented EII. Dr. Johnson, who is approved by WI DNR to perform audits of Green Tier program participants, performed the audit using the criteria set forth in ISO 14001:2004 and against the 15 Green Tier required elements as set forth in the Green Tier legislation (reauthorized ss. 299.83). Functional equivalency was assessed using the criteria set forth in ss 299.83 (1)(dg).

The audit yielded no findings of nonconformity. The review included a Level 1-4 documentation review, public document & communications review, and interviews with management and employees. A tour of the Empire offices and observation of work were elements of the audit process. According to Dr. Johnson, the tour and interviews were extraordinary, impressive and exemplary.

Eleven opportunities for improvement (OFI) were identified, which are reported under separate cover. While only one of the identified opportunities is germane to requirements for conformance, the remainder are offered to provide a hint of how the standard might be applied to strategic, forward-looking considerations for the management of the business.

To sum it up, evidence suggests Empire is managed in a way that fosters continual improvement in the quality of management processes and business outcomes with potential to impact the environment.

2015-2016

Objectives & Targets Results

OBJECTIVES OVERVIEW

OBJECTIVE 1

Continue with current recyclable program and our long-term reduction goal of 50% landfill waste, with an annual goal of 5% reduction

OBJECTIVE 2

Continue to implement sustainable print methods.

OBJECTIVE 3

EMS document control

OBJECTIVE 4

Complete projects for MPower.

UV LED Curing Technology Environmental Benefits

At Empire, we feel it's important to implement sustainable print methods using UV LED technology in our objectives every year (See Objective 2). In order to understand the benefits of UV LED ink curing technology, it's important to know where Empire started. In 1960 Empire Screen Printing first produced product with solvent based inks, with high VOCs (Volatile Organic Compounds). These inks required significant drying time and expansive curing ovens.

In 1977 Empire began incorporating UV inks with much lower VOCs into the process, which enabled a faster cure with a mercury vapor bulb. However, mercury vapor bulbs emitted ozone when curing and required extensive exhaust venting.

Gradually the transition from solvent to UV ink was made. In 1977, only 1% of ink used was UV cured and 99% solvent. Today 99% of our inks are UV curable and only 1% is solvent-based ink. UV ink was a healthier alternative for our employees than solvent ink.

In 2008 our first successful prototype for UV-LED curing was created, capturing benefits of UV ink and harnessing the energy efficiency of UV-LED:

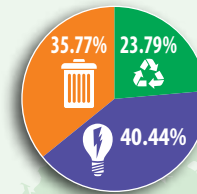
- » No ozone emissions
- » No Mercury bulbs
- » No CFM's
- » No ventilation systems required
- » Minimal heat
- » Less downtime
- » Less material waste, due to producing in one-piece flow
- » Instant On/Off
- » Bulb life of 10-14 years
- » Reduced energy consumption

Solvent and UV-mercury vapor are still considered the screen print industry standards, but Empire is poised to change the industry for the better by sharing these technological advancements with its competitors because, according to John Freismuth (Empire's President), "It's important for the entire industry to reduce its footprint."

Continue with current recyclable program and our long-term reduction goal of 50% landfill waste, with an annual goal of 5% reduction **OBJECTIVE 1**

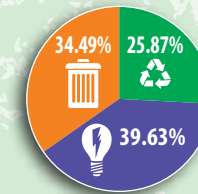
Empire Generated Waste

Oct. 2012- Sept. 2013



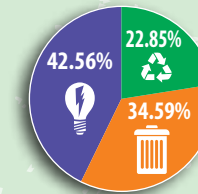
370.96 Total Tons
 » Waste Disposal Cost = \$21,203.15
 » Recycling Cost Savings = \$6,618.85
 14.5% reduction in costs from previous year

Oct. 2013- Sept. 2014



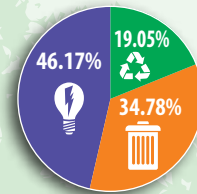
351.24 Total Tons
 » Waste Disposal Cost = \$19,525.43
 » Recycling Cost Savings = \$6,814.93
 7.91% reduction in costs from previous year

Oct. 2014- Sept. 2015



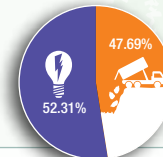
372.28 Total Tons
 » Waste Disposal Cost = \$21,541.05
 » Recycling Cost Savings = \$6,379.95
 10.32% increase in costs from previous year

Oct. 2015- Sept. 2016



347.28 Total Tons
 » Waste Disposal Cost = \$21,084.24
 » Recycling Cost Savings = \$4,961.76
 2.12% decrease in costs from previous year

Benchmark: 2011-2012*



369.64 Total Tons
 *Recycling program was implemented in April 2012. This graph is the benchmark for our long-term goal.

Year	Target	Actual
2011-12	Benchmark: 47.69%	
2012-13	42.69%	35.77%
2013-14	37.69%	34.49%
2014-15	32.69%	34.59%
2015-16	27.69%	34.78%

Empire Generated Waste

Our Green calendar year runs the same as our fiscal year: October of the current year to September of the following year. Recycling was not tracked prior to April 2012.

- Recycled material
- Landfill waste
- Waste to energy

Waste disposal cost is \$75.00 per ton
 » Cost of Waste Disposal = (Total Tons x \$75.00) x (Landfill % + Energy Conversion %)
 » Recycling Cost Savings = (Total Tons x \$75.00) x Recycling %

QMS: Empire Sustainability: Documentation: 01_Recycling Reports: Current Landfill Recycling Chart 2016.pdf (updated 11-27-16)

In the last two years, Empire did not reach the annual objective of 5% landfill reduction with a long term goal of 50% landfill waste. As a result of this failure, Management has re-established clearer metrics and goals in our 2016-2017 Objective 1 target to include incremental benchmarks for achieving our long-term goal of 50% landfill reduction (23.85% total waste to landfill). We will also establish a clearer completion for this long-term goal.

In 2015-2016 year, two of our main recycling items (polycarbonate and ink buckets) were no longer accepted by our recycling company. This was a result of reduced fuel prices and poor market value for these items. We researched sending these recycled materials to Quincy Recycling, but determined that the amount of waste compared to the cost to pickup was not cost affective at this time to pursue. We continued to improve educating our employees on our different waste streams. This past year, we created more signage and labeling to help identify proper disposal of our waste.



EDUCATING EMPLOYEES:

Our MPower survey (see page 16) showed us that employees still weren't very knowledgeable in how our waste should be disposed. To educate them, we created signage on both of our compactors, as well as the bins, to identify proper waste streams. This will help everyone be aware of what they are throwing at every stage of the process, leading to a higher percentage of waste being recycled and/or converted to energy, which will reduce our landfill impact.

2015-2016 Objectives & Targets Results

Continue to Implement Sustainable Print Methods OBJECTIVE 2

In addition to the UV LED Curing Technology environmental benefits listed on the previous page, it's important to understand that with every objective we create, we are changing the industry's use of harmful pollutants. The chart on the right shows a comparison of Solvent and UV Inks (the industry's standards) versus the ground-breaking technology of UV-LED.

**This is for reference only, and is not part of the actual objective.*

Side-by-side Comparison	SOLVENT	UV-Mercury Vapor	UV-LED
	High VOCs	Low VOCs	Low VOCs
	60% remains on substrate 40% evaporates	100% remains on substrate	100% remains on substrate
	Significant drying time on racks or in heat ovens	Rapid ink curing with light, NOT heat or air	Rapid ink curing with light, NOT heat or air
	Large press footprint	Smaller press footprint	Smaller press footprint
	Special wiring required 240-440 watt	Special wiring required 240-440 watt	Standard 120 watt outlet no special wiring
	---	Emits ozone, requiring exhaust venting	Zero ozone emissions, NO venting needed
	NOT energy efficient	NOT energy efficient	Energy efficient
	Higher maintenance costs/downtime	Higher maintenance costs/downtime	Lower maintenance costs/downtime
	---	Short Bulb life 3-6 months	Long bulb life 10-14 years
	---	Cure rate declines over life of bulb	Consistent cure rate over life of bulb
	---	Significant warm up and cool down times	Instant On and Off
	---	95% heat and 5% light	5% heat and 95% Light
	High heat, material distortion	High heat material distortion	No heat little or no material distortion
			Able to print on more heat susceptible substrates

BUILD A ROLL-TO-ROLL SCREEN PRINTING PRESS USING LED TECHNOLOGY (design phase only)

Our design phase plans for 2015-2016 were to program and prototype the touch screen technology and motion systems. This has been completed. Design of the actual press is in the drawing stages.

Management has determined this objective is of secondary importance to the completion of the 12-color press; upon completion of the 12-color, this project will be re-evaluated to determine future completion dates.

BUILD A 12 X 14 3-COLOR PRESS USING UV LED TECHNOLOGY

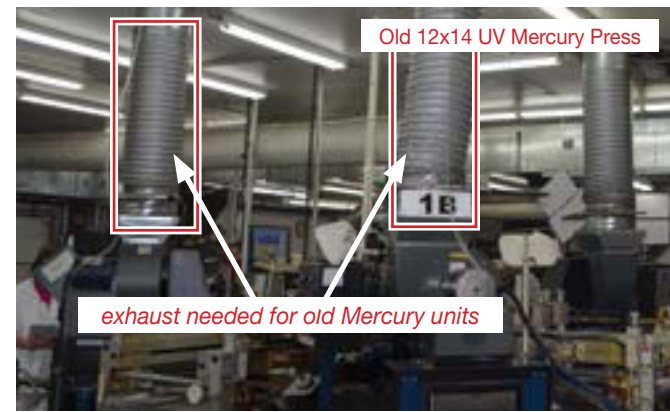
This was the third press that Empire has built to eliminate the high cost of producing parts using traditional UV Mercury lines, as well as moving towards environmental sustainability.

The "12x14" is a three-color press with three UV LED curing units that have 14-inch lights at each station. These units are single station with a 12-watt per inch curing area. With the traditional UV Mercury bulbs, there would have been 300-watt double station UV Units at an 18" cure area.

12x14 3-COLOR POWER CONSUMPTION COMPARISON (Based on 5,000 work hours/year)		
Description	Traditional UV Mercury Press	New UV LED Press
Average Amps	56 Amps	9 Amps
Voltage	480 Volts (3 Phase)	208 Volts (3 Phase)
Kilowatts/Hour	46.6 kW/h	3.24 kW/h
Kilowatt Hours/Year	232,780 kWh	16,200 kWh
Price per Kilowatt	\$.073	\$.073
Total cost to run per year	\$17,063.00	\$1,187.46
CFM Exhaust for press	5,000 CFM (11.4 kW/h)	0 CFM
Cost of CFM Exhaust	\$13,927.00	\$0.00
Cost of Bulbs per year	\$6,480 (40 @ \$162 ea)	\$0.00
TOTAL COST/YR TO RUN	\$37,470.00	\$1,187.46

Prior to the UV LED curing, the exhaust for the ozone on the UV Mercury units would have been over 5,000 cfm (cubic feet per minute). This would take out a large amount of cool air in the summer and hot air in the winter, which adds up to a significant amount of energy just going up through the stacks. The UV LED curing has no air or exhaust needed, eliminating that energy cost completely.

This objective was to provide a 95% savings in energy consumption, with a cost savings of \$33,693 per year (savings are based on a new press using traditional UV curing print methods). It was originally slated for completion in October 2015, but was completed in January 2016. The outcome of this objective provided a 96.83% reduction in energy savings and a cost savings of \$36,282.54.

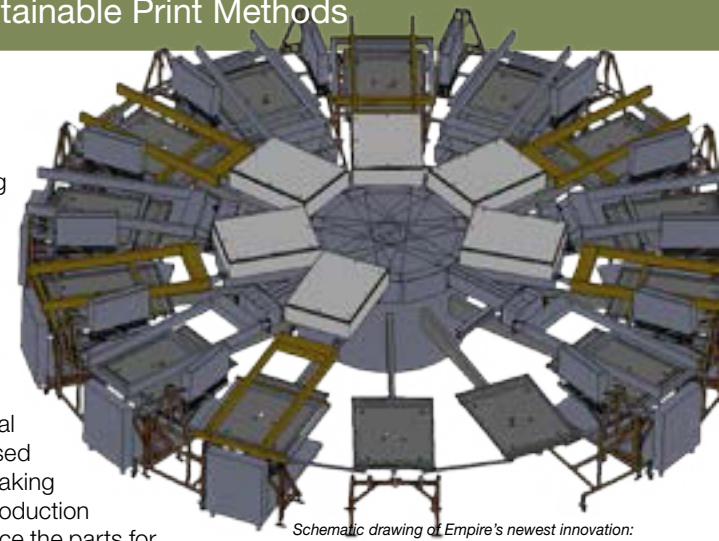


COST TO BUILD 12x14 UV LED PRESS:	
LED Cost 12 Watts/inch (14" LED lights per station)	\$64,740.00
The rest of the machine-parts only	\$71,031.16
Total cost	\$135,771.16
R.O.I.	3.74 Years

OBJECTIVE 2 Continue to Implement Sustainable Print Methods

CONVERT A 6-COLOR UV CONQUEST PRESS TO A 12-COLOR LED CAROUSEL PRESS

Empire purchased a used UV Mercury curing 6-color 40x56 screening press back in August of 2015, which was delivered in October 2015. When the LED lights were purchased for the 12-color conversion project in January 2016, it was decided to place those lights on the 40x56 press instead of putting them on the 12-color press (see "Additional Annual Improvements" on next page). Even though the project's timeline has been delayed because of this decision, we are now producing 50% of our screen printed products using UV LED technology.



In May 2016, the design phase was started, including electrical, physical drawing of the parts and programming. 16-watt lights will be purchased for this press in approximately 1 year (05/2017). We have started making adjustments on one print head and will be installing that print head in production to test. Once we are satisfied with the test results, we will mass produce the parts for the remaining 11 print heads. The electrical and programming are moving along as planned.

This objective has an 18-month completion date (September 2017). Once implemented into production, we forecast an annual energy savings of 85.23%* (a reduction of approximately 514,500 kW to 76,000 kW per year) and a cost savings of \$28,000* per year (savings are based on a new 6-color press using traditional UV Mercury curing print methods.). We will be able to produce up to 12 colors in one-piece flow, which will reduce material waste and setup times. Because this is ground-breaking technology, we now realize that the improvement numbers supplied can only be estimated. We will have to wait until the press has been implemented before establishing measurable data.

ADDITIONAL ANNUAL IMPROVEMENTS

CONVERTED A 6-COLOR TO UV LED: In addition to the items listed on our objectives, we also expanded our LED operation by converting a used 6-color 40x56 press with an LED retrofit. Based on approximately 2,000 work hours/year, this has reduced the energy usage for this press by 87.81% (savings are based on a traditional UV Mercury press).

DESIGNED A PORTABLE LED CURING UNIT: Empire also designed a mobile LED Curing Unit. The mobility allows it to be used on the #3 Press FMA Line, and throughout the plant. This eliminates another UV line which are very costly to run. The LED curing unit has no air or exhaust needed, eliminating that energy cost, and produces very little heat. It can be shut off and on within seconds (compared to a UV unit taking 20 minutes to turn back on), and has a life expectancy of 20,000-50,000 hours.

LED CURING UNIT POWER CONSUMPTION COMPARISON (Based on 2,000 work hours/year)		
Description	Traditional UV Line (18" 300-Watts/inch)	NEW LED Unit (24" 12-Watts/inch)
Average Amps	21 Amps	12.5 Amps
Voltage	480 Volts (3 Phase)	208 Volts (3 Phase)
Kilowatts/Hour	17.4 kW/h	2.6 kW/h
Kilowatt Hours/Year	34,800 kWh	5,200 kWh
Price per Kilowatt	\$.073	\$.073
Total cost to run per year	\$2,540.00	\$379.60
CFM Exhaust for press	1,500 CFM (11.4 kW/h)	0 CFM
Cost of CFM Exhaust	\$1,664.40	\$0.00
Cost of Bulbs per year	\$800.00 (5 @ \$160 ea.)	\$0.00
TOTAL COST/YR TO RUN	\$5,004.40	\$379.60



Based on 2,000 work hours/year, this provides us with a 92.41% energy savings (savings are based on a new press using traditional UV curing print methods).

OBJECTIVE 3 EMS Document Control

In 2015-2016, the company began a plant-wide document control implementation. We wanted all information regarding Empire's processes, procedures, work instructions and job breakdowns located in one centralized area of our network. This Quality Management System (QMS) includes the EMS and anything pertaining to sustainability. The Green Committee assigned various personnel to be responsible for saving/scanning all necessary documentation. In March, 2016, an internal HTML site was made available for employees to view all company information, including our EMS. Procedures have been put in place to ensure appropriate documents are added or updated to the EMS, when changes are required. The initial objective has been fulfilled (but based on updates and changes in state and local requirements, or changes within the industry, this will be a continuous improvement objective).

OBJECTIVE 4 Complete projects for MPower

See "Raising Awareness" section of annual report for information regarding our MPower participation and projects.

July 20-21, 2016



Customers talking shop with Tom Donaldson (Digital Department Supervisor).



Brian Parsley (Speaker) presenting the Psychology of an Elite Salesperson.

Creating Awareness: National Sales Meeting

Our fourth biennial National Sales Meeting and Vendor Show highlighted sustainable business practices while providing an engaging environment for our customers, sales reps, employees and suppliers. The focus for this two-day event was "People, Purpose, Passion—The Pathway to Success." Our NSM was packed with entertainment, training, and educational materials, highlighting the best of the best within the industry.

Day One was held at Stoney Creek Inn in Onalaska, WI. Five different motivational speakers provided information to our sales reps on the latest sales and marketing trends. Later that evening, they unwound at a Wisconsin Backyard BBQ, hosted by Empire's president, John Freismuth.

Day two brought together printing professionals from all over the United States, showcasing what's new in the industry, with an emphasis on sustainable business practices and environmentally friendly materials. Tours of the plant and breakout sessions were held throughout the day. By holding this event at Empire, everyone was able to see firsthand how it is possible to create and sustain a screen printing industry that is beneficial for the environment as well.

Shelley Heilman, Environmental Assistance Outreach Coordinator in Madison, WI commented about the event: "I was in awe of Empire's National Sales Meeting and Vendor Show event and especially the way Empire was willing to transform its facility into a place of learning and networking for clients, suppliers and competitors. It was a great venue for sharing ideas and recipes for success that benefit both the bottom-line and the environment. We are thrilled to have Empire Screen Printing in the Green Tier program and hope that others that learned about your participation will join in and participate in Green Tier too!"



John Freismuth (Empire President) gives a tour of the facilities.



Customers enjoying one of the various local food trucks brought in for the event.

"I was extremely impressed with the way you all continue to look for opportunities to lead this industry in sustainability."
~ Dan Baumann, P.E., Eau Claire, WI

"Thank you for highlighting your Green Tier participation and allowing us to be a part of this important event."
~ Jessica Lawent, Air Management Transportation and Printing Sector Specialist, Milwaukee, WI

"You should be proud of what you cultivated at Empire. The people are engaged in the business and you have unique approaches to running things. We were impressed with the cellular layouts. The level of innovation blew us away."
~ Brent Greene, Willington Nameplate, Stafford Springs, CT



Carrie Thompson, part of the Sustainability Institute's MPower program, proudly shows off her booth at the Vendor Show.



Empire owners, Jim and Cindy Brush (standing), enjoying good company and conversation during the Backyard BBQ. Sales Reps enjoyed live music, wine tasting and catered food in a relaxed atmosphere.



Amy Bettis (HR) giving a tour of our innovative Kammann press.



Creating Awareness: MPower Program

At Empire, we know we need to create and produce sustainable methods for printing, but providing a safe environment for our employees and the community goes much deeper than that. It needs to be a mindset that every employee should embrace. To accomplish this, we joined the 2015 MPower Champions Pilot Program in the Seven Rivers Region.

In 2009 the MPower program was created in the Madison Region, facilitated by Sustain Dane, a non-profit organization. Over 70 Madison-area businesses and organizations participated. With the success of the program, Sustain Dane felt the need to branch out to other communities. The Seven Rivers Region was chosen for their test pilot. The pilot program was hosted by the Sustainability Institute at WTC and Empire was selected as one of the four pilot companies.

What is MPower? MPower is a year-long program, focusing on ways a business or organization can reduce their environmental impact. We met every month for presentations and workshops on various subjects such as energy, recycling, transportation, water conservation, etc.

In addition to meetings, our company selected and conducted five sustainability projects during the year. These projects needed to be completed by the end of the program year, or be "shovel-ready" (this means that the plans are in place, allowing us to implement the project in the future). The Green Committee and upper management agreed on the following projects:

Capturing the Voice of the Employee

The focus of this project was to capture the voice of employees by initiating a sustainability survey. We wanted to measure what they consider important in regards to sustainability at work. All three shifts were included in this survey, with 45% of the employees participating. With the information gathered from the survey, we hope to improve employee knowledge, engagement and drive the culture of change as it adheres to our Mission, Vision and Core Values.

Another aspect that we hope to achieve with some of these projects is employee involvement. If we can get our employees excited about what we're doing here, they will carry that momentum into their own homes and community. As stated previously, sustainability is something we hope to embrace company-wide, utilizing the knowledge and experience of all employees.

Garden and Landscaping

The goal of this project was to implement more naturalized spaces around the property in order to reduce the use of gas powered equipment associated with mowing, and reduce storm water run-off.

Stage 1 of this project was to reduce the area of grass being mowed on the 140.58 acre premises, with the hope of reducing

time, money and pollution caused by gas. We did a study during a 5-month period, on our two John Deere vehicles. By reducing the amount we mow, we were able to reduce labor by 29.41% and gasoline usage by 20.75%.

Stage 2 of this project was a grounds clean up. This was held in May 2016, which resulted in 144 lbs of trash collected!

Compressor Heat Recovery

Our current compressors create about 90,000 BTU's of heat an hour that is being expelled from the building. This project was a case study to determine if the heat generated by our compressors can be captured for heating in cooler months. This study determined that it would be hard to quantify the potential energy savings because we can't determine if the excess air would be the only source of heat or if we would need to continue running the heat at the same temperature in order to keep a constant temp/comfortable working environment. It was estimated there would be a financial savings of \$300-\$800/year with an ROI of 11 years, which was an insufficient amount to justify the project at this time.

Marketing Sustainability

Our big focus with this was to communicate our sustainability efforts through an Empire Marketing Kit involving print, social media and our website. This kit was created for distribution to our sales team, the industry, our customers, external stakeholders and our community. It was also used for internal marketing and training.

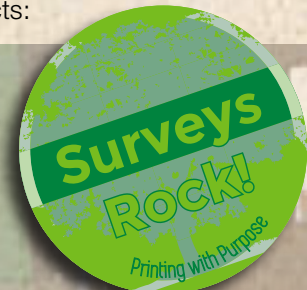
Although no data is available on the distribution of the overall kit, our overall results are reflected in the awards received and the events hosted both internally and externally. See additional Creating Awareness pages for some of the results based on this kit.

12-Color UV LED Press Conversion

By making this an MPower project, we would be able to document and showcase the process for other companies who may be interested in sustainable printing methods. See page 12-13 for additional information.



Empire employees picked up 144 lbs of trash from the company grounds.



Jennifer Schloesser (Art Creative Director & Green Committee Chairperson) handing out employee survey.



Example of results from survey



Empire MPower Project Survey | Sustainability

How important do you think sustainability in the workplace should be? Very Important Somewhat Important Indifferent Don't think about it

How do you get to work? Car Public Transportation Motorcycle Walk/Bike Other

Method of transportation? Car Public Transportation Motorcycle Walk/Bike Other

Do you participate? Yes No

Creating Awareness: Stakeholders

As part of Green Tier I level of compliance Empire must organize and preside over annual stakeholder meetings. The meetings allow for an opportunity to be held accountable to the tenants of Empire's sustainability policy and program. Both internal and external stakeholders are invited to these meetings.

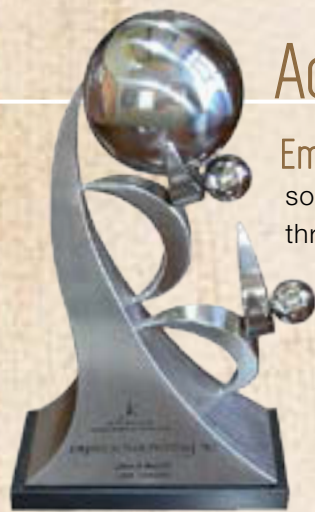
Internal Stakeholders:

Jim Brush (Owner), John Freismuth (President), Jim Schweinfus (Vice-President), Doug Billings (VP Marketing), Lee Vieth (Plant Manager), John Johnson (Operations Coordinator), Randy Hoff (Plant Engineer), Green Committee: Jennifer Schloesser, Amy Bettis, Cathy Buttell, Keith Cook, Jay Yehle, Jeff Geirok, Ray Wurzel

External Stakeholders:

Tom Thompson (Gundersen Health Systems Sustainability Coordinator), Randy Nederlo (Deputy Director of La Crosse County Hazardous Waste), Shannon Havlik (Sustainability Coordinator, WTC)





WI Family Business of the Year

Accomplishments

Empire is sustaining a culture of solution-based problem solving through lean manufacturing and environmental awareness. By advocating a relentless pursuit of continuous improvement, quality and service, we are continuing to make a name for ourselves in sustainability. As a testament to our commitment, we have been recognized both locally and nationally this year, from various organizations.

In April 2016, Empire was nationally recognized by the **Specialty Graphic and Imaging Association (SGIA)** as 1 of 20 companies across the United States and Canada, to earn their **2016 SUSTAINABILITY AWARD** as a leader in environmental responsibility. This is the third time we have been given this award. SGIA's recognition program was designed to encourage member companies to create and adopt sustainable business practices and to set an example for other companies to follow.

In May 2016, we were the recipient of 2 awards: the Earth Day Award and the Wisconsin Family Business of the Year Award for large companies.

WISCONSIN FAMILY BUSINESS OF THE YEAR AWARD celebrates the accomplishments and the impact that a family-owned business has on our communities. Empire was the proud winner of the Grand Award, Large Company category, due to implementing LED ink curing technology as well as openly sharing this information with their peers in the industry. In doing so, we were recognized for our commitment to social responsibility. The judges were impressed with the company's can-do attitude, their industry leadership, and their dedication to continual innovation.

The **Wisconsin Sustainable Business Council** wanted to recognize internal process changes that would normally be invisible to people outside of a given company. Empire was honored with an **EARTH DAY AWARD** because we constantly seek ways to run more efficiently, reduce costs and strive to lessen our environmental impact associated with providing our services to customers.

But we didn't stop there! The Wisconsin Manufacturers and Commerce organization presented Empire with the **WISCONSIN BUSINESS FRIEND OF THE ENVIRONMENT AWARD** in June, 2016. The WMC Foundation recognized nine companies based on programs that demonstrate an innovative approach to environmental protection, or a level of effort beyond that which is required by regulatory compliance.

In August of 2016, we rounded out our proud achievements by being accepted into the **GREEN MASTERS PROGRAM**, one of the state's largest and most recognized sustainability programs, with a network of over 175 Wisconsin businesses involved in sustainability.

During the Vendor Show at our National Sales Meeting in July 2016, Empire was recognized by the Wisconsin DNR as a leader in environmental sustainability and innovation for our third year of participation in the Green Tier program. The celebration was lead by Dan Baumann, Western Wisconsin Secretary's Director, who presented us with a certificate and commended us on our achievements: "I was extremely impressed with the way you all continue to look for opportunities to lead this industry in sustainability," Dan stated.

"We are pleased to have Empire Screen Printing participating in Green Tier," said DNR Secretary Cathy Stepp. "With innovative ideas and a strong dedication to sharing knowledge and successes, Empire is a great fit in the Green Tier family."

We ensure our future prosperity as we cultivate our employees and business partners to respect Empire's long-term philosophy of sustainability, self-reliance, determination and innovation. We don't just print on 'green' products we build 'green' into the process.



Tom Thompson (Gundersen Health System Sustainability Coordinator) honoring Empire.



Green Tier Celebration at the NSM. L-R: John Freismuth (president) Cindy and Jim Brush (owners), Dan Baumann (Western WI Secretary's Director), Tom Thompson (Gundersen Health System Sustainability Coordinator).



Lucas Vebber from WMC (left) presenting the Friend of the Environment award to John Freismuth (president).

APRIL 2016

SGIA Sustainability Award



MAY 2016

WI Family Business of the Year Award



MAY 2016

Earth Day Award



JUNE 2016

WI Business Friend of the Environment Award



JULY 2016

Green Tier Celebration



AUGUST 2016

Green Masters Program



At Empire we never settle for 'good enough'. We strive for greatness.

2015-2016

Our Environmental Performance

Performance for the Fiscal Year
10/2015 – 09/2016



Empire Screen Printing is located in Onalaska, Wisconsin, on a spacious 140.58 acre property. The commercial area covers 12.37 acres with a large 150,000 square foot facility, employing 265 full-time and 19 part-time people.

Demographics

Total Sales.....	\$22,908,824
\$ saved from material/process improvements.....	\$250,751
Profit of.....	\$508,811
Multiple between highest paid and lowest paid employee.....	4
Total purchases.....	\$22,349,696
Total in-stage purchases (approx.)	Info Not Available
% of purchases made from companies in Green Tier	Info Not Available



Energy

Total Electricity used	3,995,344 kWh
Total Natural Gas used.....	65,705 Therms
Renewable energy	N/A



Water

Empire has 2 water wells, which are not regulated by the city. The amount of recycled/reused and pollutants discharged is not recorded.

Air

Total air emissions from 01/2014-01/2015*.....	14,595 lbs/yr
Reduction from previous year.....	7.90%
Ozone-depleting substances (refrigerant added every fiscal year).....	100 lbs/yr
Reduction from previous year.....	0.00%
Greenhouse gas emissions.....	N/A

*Air emissions are recorded annually.



Waste

Hazardous waste disposal (still bottoms).....	7 drums (3,500 lb/yr)
Increase from previous year.....	1.45%
Non-hazardous waste disposal (ink)	19 drums (9,500 lbs/yr)
Increase from previous year.....	12.43%
Material recycled/reused.....	27.02 tons/yr
Material sent for energy conversion.....	174.72 tons/yr
Total amount diverted from landfill.....	56.40% of product



Transportation

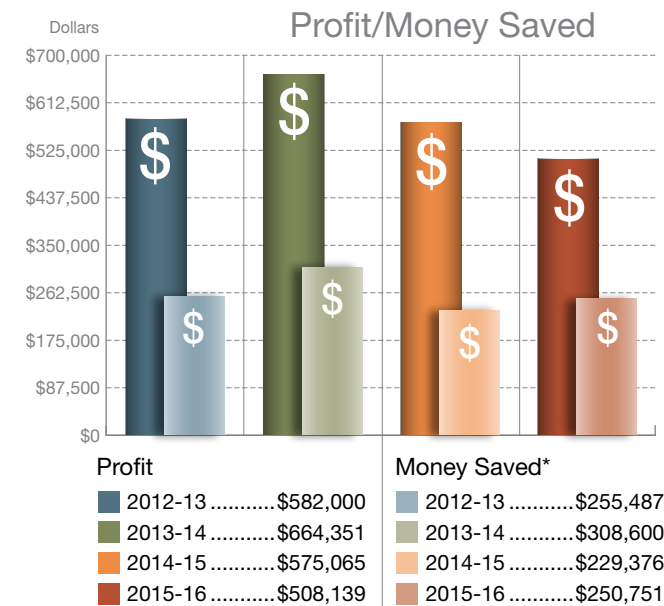
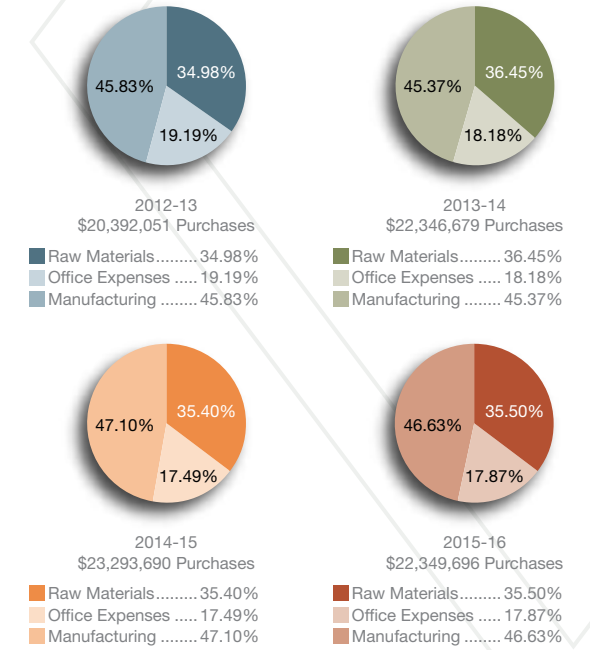
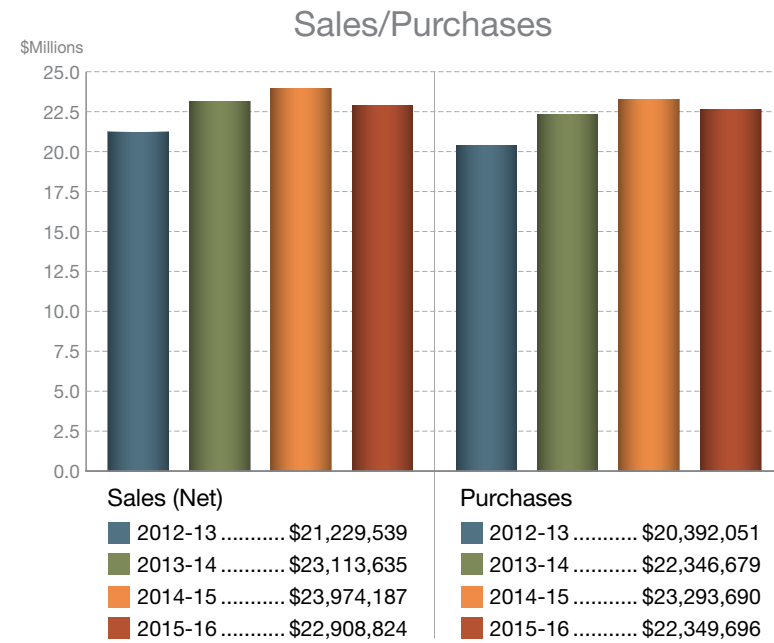
Hybrid vehicles.....	2
Gas vehicles (includes 1 tractor for mowing)	2
Diesel tractor used for mowing/snow removal.....	1
Vehicle maintenance expenses**.....	\$7,509

**Vehicle expense includes gas, oil, tires & misc. maintenance (not itemized)

Environmental Performance Usage Comparison Summary



Demographics



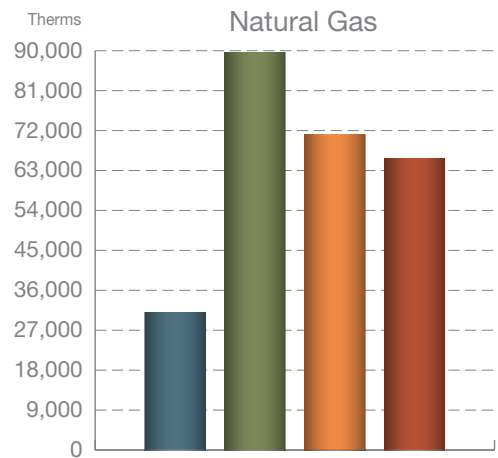
*Money saved due to material or process improvements





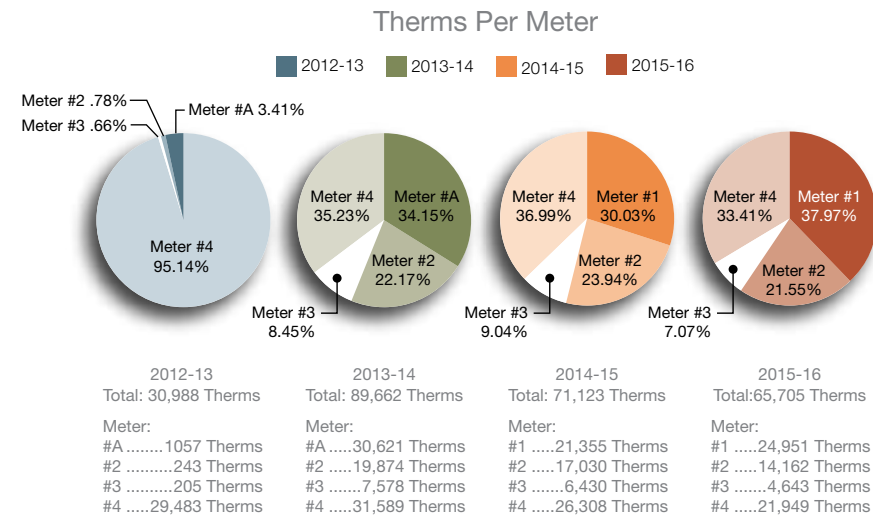
Energy: Natural Gas/Electricity

In 2015-2016, two additional presses were added (12x14 3-color UV LED unit and 40x56 6-color UV LED unit). This increased our screening capacity by 25%, bringing our total screen printing production using UV LED technology to 50%. Despite this increase in equipment, our overall natural gas usage has decreased and our energy use has remained consistent.



Natural Gas (4 meters)

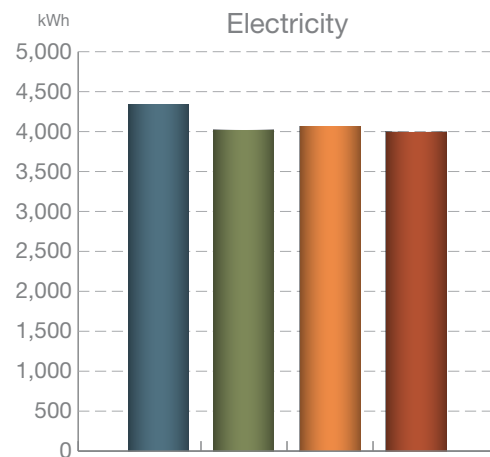
- 2012-13 30,988 Therms
- 2013-14 89,662 Therms
- 2014-15 71,123 Therms
- 2015-16 65,705 Therms



Since 2012, we have seen a **7.91%** increase in sales, with a **5.64%*** decrease in natural gas usage.

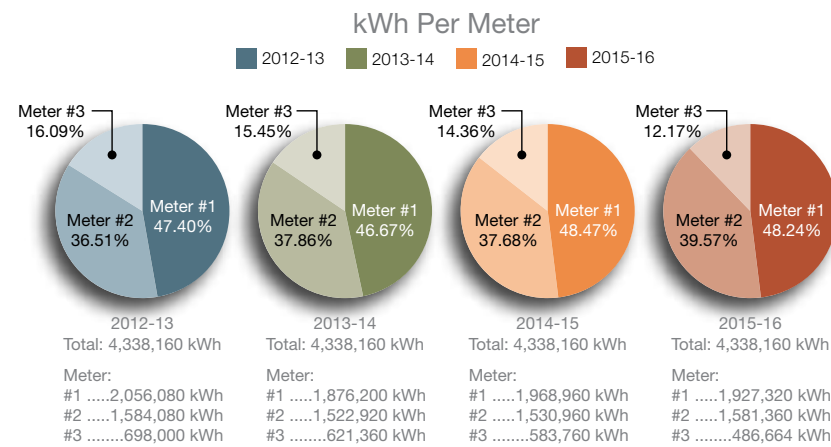
*Natural Gas % factors in Heating Degree Days (HDD)

Adjustment from previous annual reports: Meter A malfunctioned in 2012-13 fiscal year, but was not discovered until September 2014. The meter was replaced with Meter #1. The therms were then averaged between October 2014-March 2014.



Electricity (3 meters)

- 2012-13 4,338,160 kWh
- 2013-14 4,020,480 kWh
- 2014-15 4,060,680 kWh
- 2015-16 3,995,344 kWh



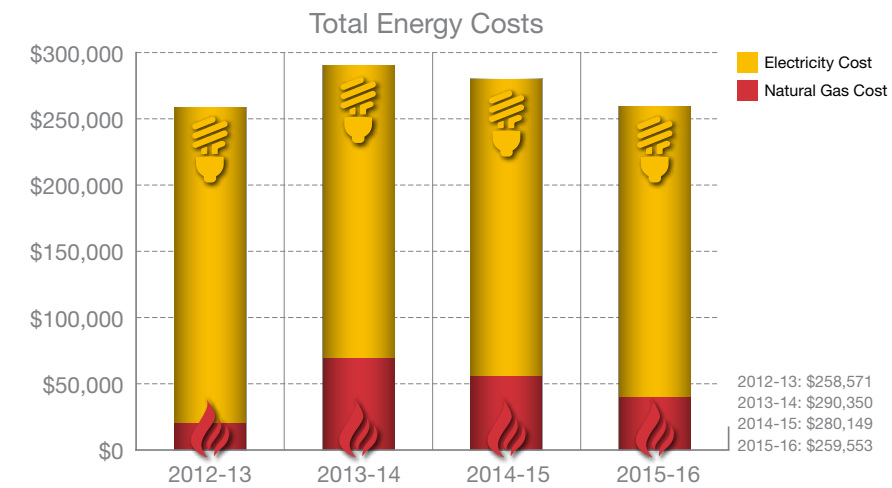
Since 2012, we have seen a **7.91%** increase in sales, with a **10.62%*** increase in electricity cost.

*Electricity % factors in Heating and Cooling Degree Days (TDD)

On 07/07/16, we received a **\$21,512** rebate from Riverland Energy due to our sustainability efforts.

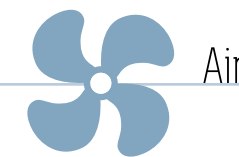


Energy: Natural Gas/Electricity

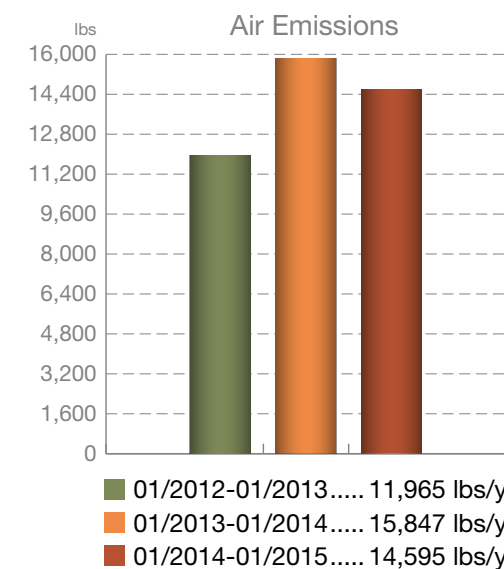


Since 2012, we have seen a **7.90%** decrease in total energy costs.

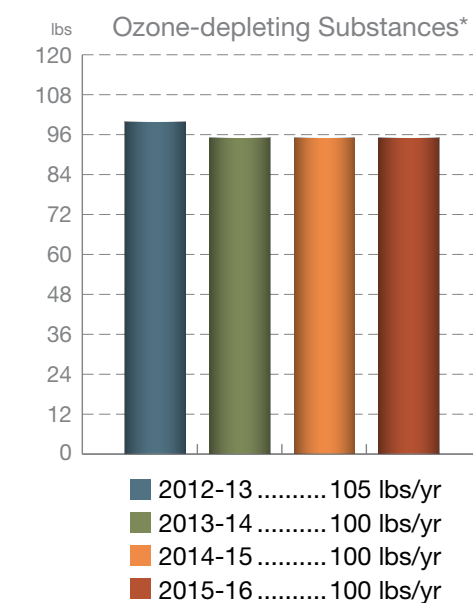
Cost per kWh has remained constant since 2012



Air



Air Emissions are recorded annually

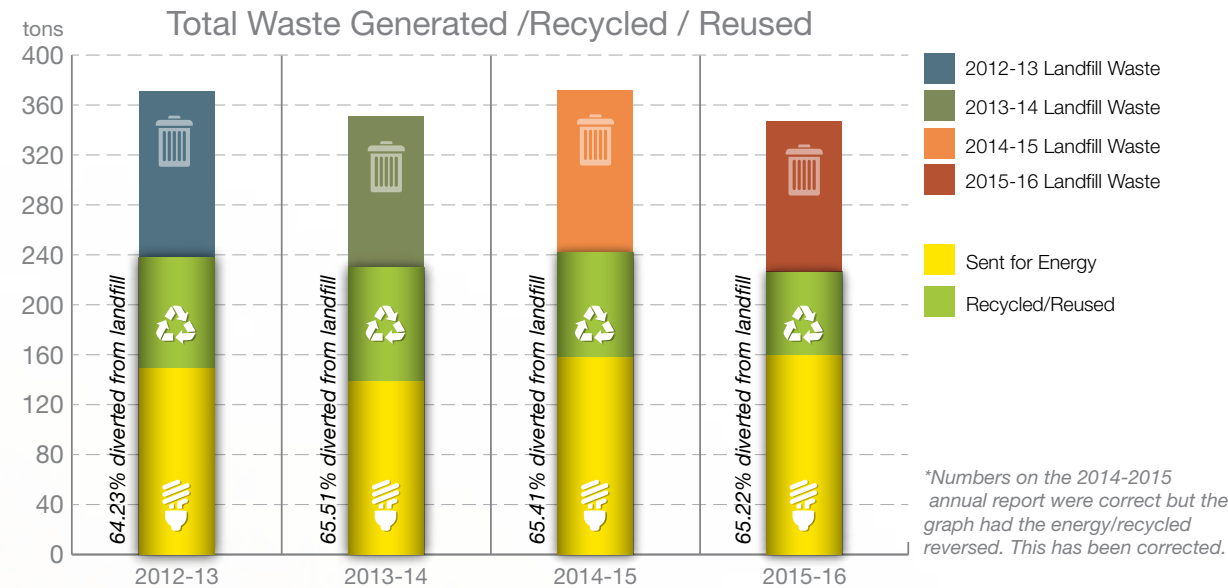


*Amount added

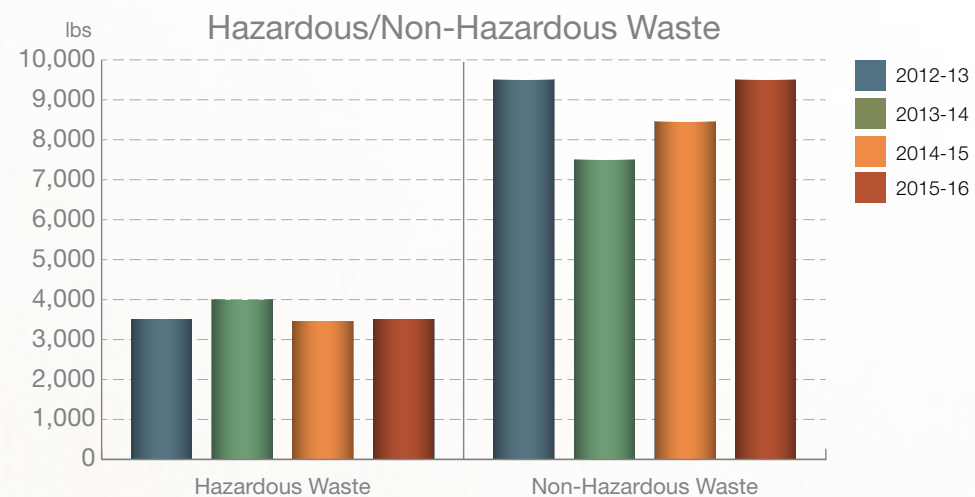
The future of our children,
The future of our planet,
It's in our hands.
That's why energy matters!



Waste



Year	Total Tons	% from landfill	Sent for Energy	Recycled/Reused
2012-13	370.96 tons	64.23%	150.03 tons	88.24 tons
2013-14	351.21 tons	65.51%	139.21 tons	90.84 tons
2014-15	372.28 tons	65.41%	158.45 tons	85.06 tons
2015-16	347.28 tons	65.22%	160.35 tons	66.16 tons

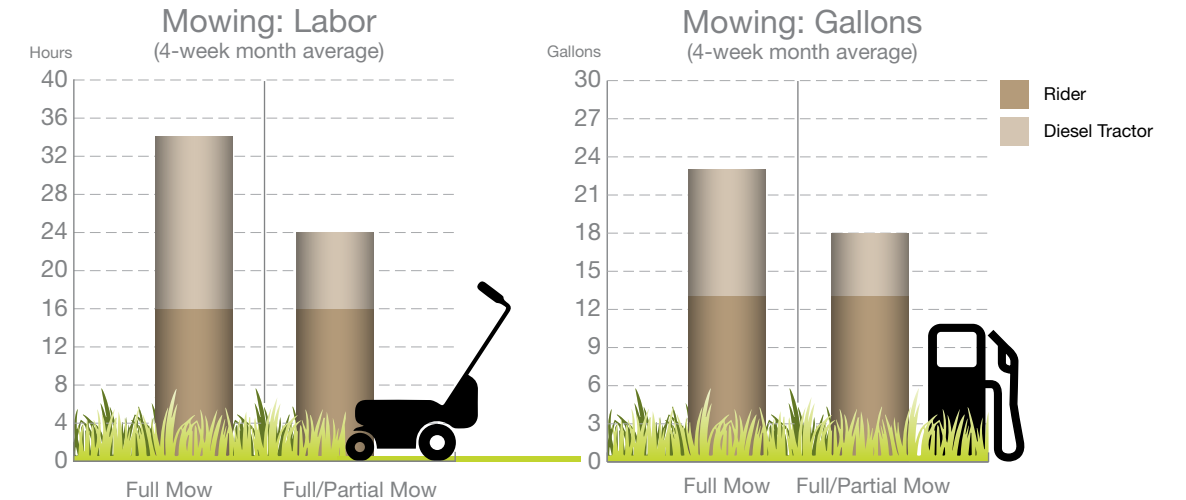


2012-13	Hazardous Waste	3,500 lbs (7 Drums)
2012-13	Non-Hazardous	9,500 lbs (19 Drums)
2013-14	Hazardous Waste	4,000 lbs (8 Drums)
2013-14	Non-Hazardous	7,500 lbs (15 Drums)
2014-15	Hazardous Waste	3,450 lbs (7 Drums)
2014-15	Non-Hazardous	8,450 lbs (17 Drums)
2015-16	Hazardous Waste	3,500 lbs (7 Drums)
2015-16	Non-Hazardous	9,500 lbs (19 Drums)



Transportation / Equipment

As part of our MPower project, we created a landscaping project. Part of that project involved reducing the area of grass being mowed on the 140.58 acre premises, with the hope that it would reduce time, money and pollution caused by gas. We did a study during the period of 05/06/2016 - 09/15/16 (approximate 5-month period), on our two John Deere vehicles. By reducing the amount we mow, we were able to reduce labor by 29.41% and gasoline usage by 20.75%.



Results for the period of 05/06/2016 - 09/15/2016:

John Deere 425 Rider (gas) - full mow (no partial)88 hrs labor.....71.50 gallons of gas used
 John Deere 4310 Diesel Tractor - full/partial*46.50 hrs labor.....28.75 gallons of diesel used
**amount if full mow with no partial: 99 hrs / 55 gallons used*

In an effort to reduce our carbon footprint, Empire uses Hybrid automobiles for Outside Sales and other transportation needs. The maintenance expenses for the year were \$7,509**. Information on our transportation and vehicle equipment is as follows:

- 2 Prius Hybrid automobiles (yr. 2000)..... used for Outside Sales / transportation
- 2 Chevrolet Silverado trucks (yr. 1998, 2000) used primarily for maintenance needs
- 1 John Deere 4310 Diesel Tractor..... used for mowing and snow removal
- 1 John Deere 425 Rider Used for mowing

** The maintenance expense includes gas, oil, tires and miscellaneous maintenance. Expenses are not itemized.



2016-2017

Annual Environmental Improvement Goals

During our Management Review held on October 6, 2016, we established our objectives and targets for the upcoming 2016-2017 year.

OBJECTIVE 1

Reduce our annual landfill waste to 23.85% by 2022.

OBJECTIVE 2

Implement sustainable print methods with equipment using UV LED technology.

OBJECTIVE 3

Update/replace equipment as needed for better efficiency &/or per legal and other requirements.

OBJECTIVE 4

Make improvements based on our 2016 external EMS Audit

OBJECTIVE 1:

Reduce our annual landfill waste to 23.85% by 2022

Empire Screen identified 2012 as the baseline year for setting a waste reduction goal. In 2012, 47.69% of waste generated was sent to the landfill. By 2022, Empire Screen will reduce the waste sent to the landfill by 50%, with an annual reduction of 2.39%, resulting in no more than 23.85% of all the waste generated being sent to the landfill.

Action Items:

- » Reduce material usage on jobs that can be produced in Flow from 8% to 4%.
- » Garbage Audit: Perform a garbage audit to identify potential problems with waste streams. This audit will be used to educate our employees regarding separating the waste, leading to higher recycled materials and less materials in the landfill.

OBJECTIVE 2:

Implement sustainable print methods with equipment using UV LED technology

Convert a 6-color UV Mercury-curing 38x50 press to a 12-color UV LED curing press.

This is a continuing objective from 2015-16. By converting a 6-color Mercury vapor press to a 12-color UV LED press, we will be doubling our capacity. It will give us the ability to run jobs with 6 or more colors in flow, which will reduce material waste and over processing.

This press is the 1st of its kind and we do not have metrics for energy use at this time. Based on comparing our existing UV Mercury 38x50 and our experience with UV LED technology, we aim for a 70% reduction in energy use with this new 12-color UV LED press.

Action Items:

- » De-commission the existing 38x50 press in January 2017.
- » Our machine shop will retrofit and redesign the 38x50 to accommodate the new electrical features, 6 new print heads and incorporate the LED lighting units (no metrics available until after implementation of press in 2017-18). Estimated date of completion is September 2017.

*last year's projection of 85.23% energy savings with a cost savings of \$28,000 was based on a new press using traditional UV curing print methods, running at 5,000 hours. Updated information is based on actual run time of existing 38x50 press.

OBJECTIVE 3:

Update/replace equipment as needed for better efficiency &/or per legal and other requirements

Replace compressor.

Empire will replace two of our current compressors with one more efficient compressor, due for completion in November, 2016, reducing the kWh usage of this equipment by 50% per year.

Lighting conversion.

404 fluorescent T12 bulbs will be replaced with 404 LED T8 bulbs in the 1998 building edition by September 2016. This will result in a 30% reduction in bulb kWh usage.

OBJECTIVE 4:

Make improvements based on our 2016 external audit

Re-evaluate and re-score our Aspects & Impacts report to better see what needs improvement.

This improvement is based on the EMS Auditor's report (Clause 4.3.3, Objective, Targets and Programs)

Create a complete list of environmental permits and legal requirements.

This improvement is based on the EMS Auditor's report (Clause 4.3.2, Legal and Other Requirements and 4.5.2, Evaluation of Compliance)

Our pursuit of sustainability is rooted in optimism.



conclusion

Continual Improvement

Empire had an ambitious set of goals to achieve in 2015-16 in regards to sustainability. This past year was filled with discovery, as well as learning opportunities for successfully maintaining the Triple Bottom Line: People, Planet and Profit.

It is our pledge to "print with purpose" by advancing sustainable print methods, fostering a culture of continuous improvement and problem-solving, and cultivating strategic relationships that help us succeed with our mission and vision.

The following organizations have been invaluable resources in meeting our objectives: **SGIA** (Specialty Graphics and Imaging Association), **Wisconsin DNR's Green Tier program**, **Sustainability Institute's MPower Program**, **Wisconsin Sustainable Business Council** and **Green Masters Program**. These partners in sustainability have helped us grow as a company, by granting a public platform on which we can share our journey to our community and our industry.

We look forward to the future with anticipation, armed with the knowledge of the past year, making Empire the great company we know it to be.