

Printing Goes Green

**A WhatTheyThink Primer on
Environmental Sustainability in
the Commercial Printing Industry**

WhatTheyThink?

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INTRODUCTION

Welcome to WhatTheyThink's special report on "green printing." This report is intended to provide a basic primer on the issues of environmental sustainability as they apply to the printing industry.

Green Background

In the past several years, environmental issues have taken hold in the public consciousness across all industries. Companies in all corners of the economy are touting their "green credentials" in response to perceived public pressure. (It goes without saying, perhaps, that much of this is marketing positioning or "greenwashing" and not true sustainable business practices.) The printing industry is no exception, and print buyers in particular are increasingly becoming savvier about supporting suppliers and service providers who have an eye on environmental sustainability.¹ In the case of inplant printing departments, green initiatives are a function of overall corporate policies, and often involve a push for electronic alternatives to print.

Printers Are No Stranger to Green

The printing industry is no stranger to environmental concerns; printers have long had to contend in one way or another with environmental regulations—solvent emissions, effluent contaminating groundwater, paper waste, and other issues involving complex industrial chemicals and metals that often need to be collected and sent to specialized treatment plants. Back in the days of graphic arts photography, developing and processing chemistry needed to be dealt with in carefully regulated ways. While this issue still exists to some extent (the chemistry needed for imagesetters and platesetters, for example), one of the methods in which digital technologies are perceived as "green" is that they involve fewer and fewer chemicals. (So-called "processless" and "chemistry-free" platemaking systems are making inroads in modern print production.)

Digital printing itself, while chemistry-free (save for toner), is also perceived as more environmentally sustainable in that shorter, highly targeted press runs waste less paper than long offset runs.

Meanwhile, printing technologies themselves vary in their sustainability. Offset, digital, flexo, gravure, letterpress, screen, etc. are each perceived as more or less environmentally responsible and sustainable.

¹ It bears mentioning that in 2005, now-defunct market researchers The Industry Measure surveyed graphic designers, ad agencies, and other content creators and found that very few respondents considered the source of the fiber used to make the paper they specified, nor were they especially interested in considering the paper supplier's record on environmental sustainability. That was three years ago—The Industry Measure was not given the opportunity to conduct a follow-up survey, but we suspect those numbers would shift a bit to the "sometimes" and "always" categories, but maybe not as much as people would think.

There is also a division taking place in the industry with an increasing number of companies that have been “green” from the outset, while others are more likely to go green under pressure, either from regulators or customers. And in the case of mergers and acquisitions, past environmental issues are transferred to the new owners, as with many manufacturing operations. There is also the tendency for some companies to look green and support environmentally sustainable initiatives on the surface, but in the long run the actions they have taken are not particularly “green.” (For example, printing on recycled papers but then laminating the sheets so they cannot again be recycled.) This latter phenomenon is often called “greenwashing.”

In the past, environmental issues were a matter of compliance with laws and regulations. However, this has changed. While sustainability is a reaction to client requirements, it is also a proactive differentiation between one print business and another. At the same time, an emerging business model based on sustainability—that is, going green—may provide better returns through more efficient operations. A sustainable operation is often an efficient operation.

In March 2008, WhatTheyThink’s Economics and Research Center (ERC) conducted a survey of commercial printing establishments and asked about their views on a variety of green issues. Section 1 of this report provides a detailed analysis of these data, but the sense we get from our survey results is that green printing has yet to capture the imaginations of the bulk of commercial print shops. There is a “nibbling around the edges” of sustainability among printers and that it has yet to become a core strategy. Then again, if all printers are sustainable, then it no longer becomes a marketing advantage for those printers, much like having digital imaging capabilities became. On the other hand for some shops, it will still have a business impact, such as being able to bid on government and municipal work, providing more efficient returns on operations, credits for lower energy usages, and so on. In other words, at some point, environmentally sustainable business practices may become the “price of admission” to do business rather than a strategic differentiator. Indeed, it’s likely that it will be a differentiator for only a short period of time. Two years?

Electronic Alternatives: A Greener Option?

Modern digital printing is often used to drive end users to non-print, electronic media such as the Web, which may also be perceived as more environmentally sustainable than paper-based media. But are they? After all, servers, desktops laptops, cellphones, PDAs, and other digital accoutrements all use electricity (which stimulates the demand for more electricity and thus the burning of coal and other non-renewable means of generating power) or at the very least batteries (which fill and can contaminate landfills far more egregiously than paper waste). And discarded computers, peripherals, components, mobile phones, etc., are producing what many environmental watchers see as a looming “e-waste” crisis. Is this more responsible than using paper, which is a renewable resource and is not a dangerous contaminant when discarded?

On the other hand, there is undeniable evidence of the environmental impacts on land and water resources of a century of forest harvesting operations which can make a compelling case for heightened use of recycled fiber and/or care in the forest industry. In addition, paper production requires significant amounts of energy, and generates impacts associated with product transportation.

These are a handful of the issues that the graphic arts industry must contend with—either overtly or tacitly—when thinking about sustainability.

Another issue of concern is whether “green printing” is simply a marketing fad that will end up having a very short shelf-life, versus true efficiencies obtained by new processes.

A Basic Question

At present, “green printing” is a gray area; there are a number of groups all of whom have carved out their specific niche, like the Sustainable Green Printing Partnership (SGP), Sustainable Forest Initiative (SFI), Forest Stewardship Council (FSC), the Forestry Preservation Council (FPC), and the Property and Environment Research Center (PERC) and others that offer various approaches to sustainability though a single standardized definition, which would apply to all segments of the print product value chain, has yet to be established. In early April, SGP announced that it had released its own criteria on how to become a sustainable, green printer (see Section 2). We suspect it won’t be long before competing sets of criteria from other groups are announced.

A Basic Answer?

The answer may lie in how the industry addresses sustainability. Different organizations and initiatives target a particular segment of the value chain, in attempts to mitigate known impacts. A more fundamental approach, wherein industry begins with the goal of helping to build a sustainable society and asks itself what role it should play in that society, may be more constructive and lead to a more enlightened vision for the industry. Coupled with product lifecycle analysis, it may be possible to identify where more sustainable alternatives are needed. Approaches such as The Natural Step advocate a scientifically sound basis for formulating sustainability vision and goals. These will be investigated as part of the present research and form part of our proposal to “think outside of the box.”

About the Present Report

The purpose of this report is to provide a basic guide or primer on environmental sustainability as it applies to the printing industry. The goal is to examine the current landscape of green printing and evaluate where the industry stands and where it is likely to be going vis-à-vis environmentally sustainable processes. The market is changing quite rapidly, with new regulations, laws, and initiatives coming thick and fast. But the basic issues of sustainability and responsibility will remain largely unchanged.

We should also point out that this report is *not* intended to advocate in very black-and-white terms that *all* print businesses should implement any or all of the initiatives we discuss. What this report *will* do is lay out the benefits and challenges that companies interested in going down this road will likely face, and provide advice and guidance. As with any business decision, there is no one size fits all solution that anyone and everyone should implement. Ultimately, it is the business owner who knows what is best for his or her own business. And, after all, not all companies or business owners agree with the need for environmental sustainable business practices. We’re not going to cluck our tongues at them, but then they likely won’t have any interest in buying and reading this report.

How This Report Is Organized

That all said, this report is divided into quantitative and qualitative sections.

Section 1 provides the results of WhatTheyThink’s survey of print businesses—conducted by the Economics and Research Center under the purview of Dr. Joe Webb—examining their perceptions of environmentally sustainable initiatives, the extent to which they have implemented any of those initiatives, whether they intend to implement any of them, and where print businesses look for information on environmentally sustainable printing. (Section 1 includes topline data and selected cross-tabulations; Appendix A provides the full results of the survey.)

Section 2 sorts out the alphabet soup of organizations and certifications, and provides some definitions.

Section 3 examines some environmentally sustainable printing processes.
Section 4 provides our conclusions and implications.

For More Information

For more information on this report or other WhatTheyThink products and services, please contact Vince Naselli at (732) 568-0316 or vnas@aol.com or visit www.whattheythink.com.

SECTION 1: THE GREEN ENVIRONMENT

In March 2008, WhatTheyThink's Economics and Research Center (ERC) conducted an Internet survey of subscribers regarding their opinion and adoption of various green initiatives.

In this section, we provide, in chart form, the topline results (that is, "all responses"), as well as three tables of cross-tabulations. The first table breaks respondents down by size of shop:

- 1–9 employees
- 10–19 employees
- 20–49 employees
- 50–99 employees
- 100+ employees

The second table breaks respondents down by market segment (respondents self-identified themselves in one of the survey questions):

- commercial digital b&w
- commercial digital color
- commercial sheetfed offset
- commercial web offset
- other commercial (gravure, letterpress, flexo, etc.)
- prepress services
- quick printing
- specialty printing (business cards, novelties, etc.)

The third table breaks respondents down by geographical region:

- Northeast
- South
- Midwest
- Rockies & Southwest
- Pacific

Appendix A provides the results of all the survey questions, not just the "green" questions.

Current Green Practices

The top “green” practice that U.S. commercial printers say they have currently implemented is “promote recycled papers as better than ‘typical’ papers,” cited by 30% of all respondents, while 26% “identify itself in marketing and sales materials and promotions as an environmentally sensitive business.” However, note that more than half of respondents selected “none of the above.” (See Figure 1.)

Some highlights from the cross-tabulations:

- Larger shops are more likely than smaller shops to have implemented any environmentally sustainable actions: six out of 10 (60%) 1–9-employee shops said they had done “none of the above,” compared to 25% of 100+-employee shops.
- Smaller shops are more likely to do simple things such as “promote recycled papers” while larger companies are more likely to “perform an ‘environmental impact’ statement or audit” (34% of 100+-employee shops said this).
- Although “buy wind power” is not abundantly high, it still came in at 9% of 50–99-employee shops and even 8% of 10–19-employee shops.
- Almost half (48%) of commercial sheetfed offset shops said they “have special ‘green’ certifications from independent organizations.” Interestingly, quick printers are the most likely to “buy wind power” or “buy/use solar power.”
- Still, commercial digital printers and prepress shops were the most likely market segments to select “none of the above.”
- Shops located in the South and the Pacific are the most likely to select “none of the above” (46% and 44%, respectively).
- Shops located in the Northeast were the most likely to “have special ‘green’ certifications from independent organizations” (46%).

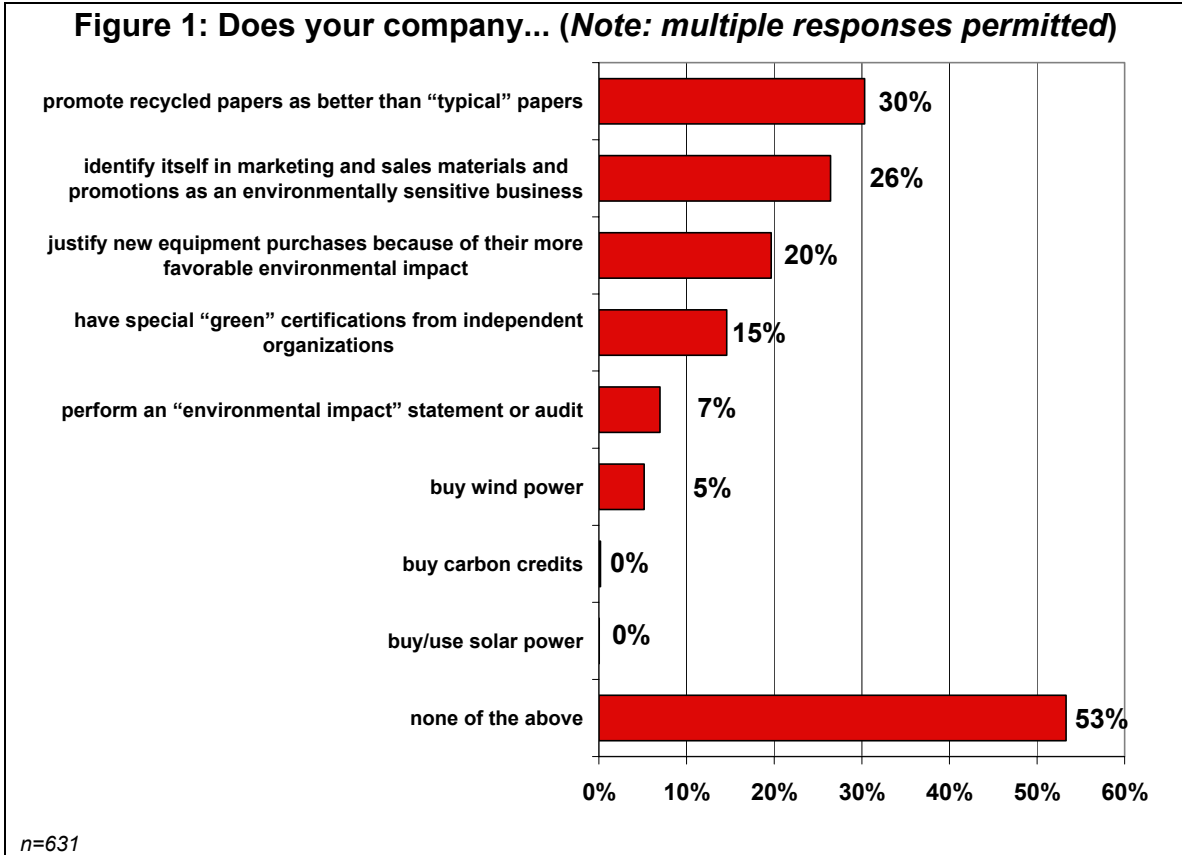


Table 1: Does your company... By employee size (Note: multiple responses permitted)

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	96	61	130	126	218	631
promote recycled papers as better than "typical" papers	32%	31%	23%	30%	26%	30%
identify itself in marketing and sales materials and promotions as an environmentally sensitive business	22%	23%	36%	58%	47%	26%
justify new equipment purchases because of their more favorable environmental impact	20%	13%	27%	26%	20%	20%
have special "green" certifications from independent organizations	5%	23%	31%	60%	57%	15%
perform an "environmental impact" statement or audit	4%	8%	15%	14%	34%	7%
buy wind power	5%	8%	4%	9%	6%	5%
buy carbon credits	0%	0%	0%	2%	2%	0%
buy/use solar power	0%	0%	0%	0%	1%	0%
none of the above	60%	51%	39%	23%	25%	53%

Table 2: Does your company... By market segment (Note: multiple responses permitted)

	comm'l digital b&w	comm'l digital color	comm'l sheetfed offset	comm'l web offset	other comm'l (gravure, letterpress, flexo, etc.)	prepress services	quick printing	specialty printing (business cards, novelties, etc.)
<i>Base</i>	10	54	320	95	22	12	85	19
promote recycled papers as better than "typical" papers	29%	30%	27%	20%	22%	8%	31%	40%
have special "green" certifications from independent organizations	14%	21%	48%	43%	56%	8%	23%	30%
perform an "environmental impact" statement or audit	14%	9%	17%	33%	44%	8%	8%	20%
justify new equipment purchases because of their more favorable environmental impact	0%	21%	21%	22%	33%	15%	29%	10%
identify itself in marketing and sales materials and promotions as an environmentally sensitive business	43%	33%	45%	39%	56%	8%	29%	60%
buy wind power	0%	6%	5%	9%	0%	0%	10%	0%
buy carbon credits	0%	0%	0%	7%	11%	0%	0%	0%
buy/use solar power	0%	0%	0%	0%	0%	0%	2%	0%
none of the above	43%	42%	31%	35%	22%	46%	44%	30%

Table 3: Does your company... By region (Note: multiple responses permitted)

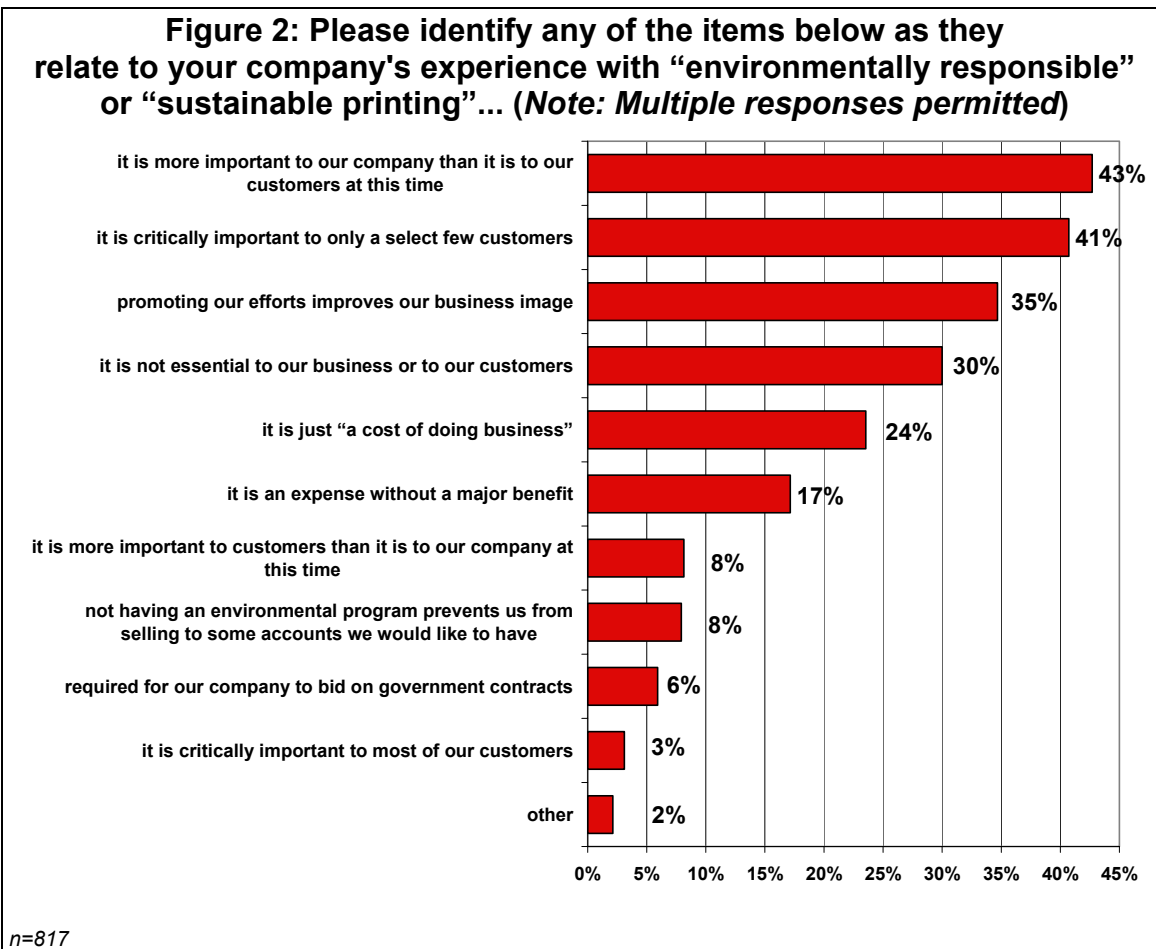
	Northeast	South	Midwest	Rockies & Southwest	Pacific
<i>Base</i>	153	86	235	79	72
promote recycled papers as better than "typical" papers	25%	19%	28%	39%	26%
have special "green" certifications from independent organizations	46%	31%	38%	39%	38%
perform an "environmental impact" statement or audit	19%	19%	19%	19%	10%
justify new equipment purchases because of their more favorable environmental impact	23%	21%	19%	39%	21%
identify itself in marketing and sales materials and promotions as an environmentally sensitive business	42%	35%	41%	44%	36%
buy wind power	8%	4%	3%	14%	8%
buy carbon credits	1%	2%	1%	0%	3%
buy/use solar power	0%	2%	0%	0%	0%
none of the above	30%	46%	35%	25%	44%

Perceptions of Green Initiatives

Figure 2 below shows how WhatTheyThink members perceive sustainable printing initiatives in general. More than four out of 10 (43%) of all responding companies said that “it is more important to our company than it is to our customers at this time,” while 41% said that “it is critically important to only a select few customers.”

Some highlights from the cross-tabulation tables:

- The smallest shops were the most likely to respond “it is more important to our company than it is to our customers at this time” (48%).
- Large companies (100+ employees) were the most likely to cite “not having an environmental program prevents us from selling to some accounts we would like to have” (16%) and “it is critically important to most of our customers” (10%)—that is, publishers are starting to get the green bug.
- Three out of 10 (30%) commercial digital color shops said “it is not essential to our business or to our customers” and 36% said “it is critically important to only a select few customers.”
- And yet 52% of digital color shops said “promoting our efforts improves our business image.”
- Four out of 10 (44%) quick printers said “it is more important to our company than it is to our customers at this time.” (Remember that these were the same folks who were buying wind power and using solar energy, so they are ahead of the curve as it is.)
- Despite what we saw in the last question—that Northeast shops were the most likely to have green certification—they were also the most likely to say that “it is not essential to our business at this time” (27%) and “it is an expense without a major benefit” (23%).



“Other” responses included:

- None has asked so far.
- We’ve been green for years and nobody cared.
- We are currently planning our program.
- We are in the process of getting FSC certified
- Essential to our younger employees and customers
- We will do something when we have to.
- It is an added expense, however we see benefit.
- It is the right thing to do for all stakeholders
- We are at the tail end of the FSC process.
- Most customers balk at the higher prices.
- It’s the right thing to do.
- Waiting on direction from SGP.
- I work for a big corporation that doesn’t much care...

Table 4: Please identify any of the items below as they relate to your company's experience with “environmentally responsible” or “sustainable printing”... By employee size (Note: Multiple responses permitted)

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	132	93	194	143	255	817
it is more important to our company than it is to our customers at this time	48%	33%	36%	19%	24%	43%
it is critically important to only a select few customers	35%	56%	52%	53%	49%	41%
promoting our efforts improves our business image	27%	38%	57%	67%	61%	35%
it is not essential to our business or to our customers	34%	23%	27%	12%	17%	30%
it is just “a cost of doing business”	23%	33%	15%	26%	26%	24%
it is an expense without a major benefit	16%	18%	16%	26%	18%	17%
it is more important to customers than it is to our company at this time	4%	13%	20%	21%	23%	8%
not having an environmental program prevents us from selling to some accounts we would like to have	8%	3%	15%	9%	16%	8%
required for our company to bid on government contracts	5%	10%	9%	4%	10%	6%
it is critically important to most of our customers	2%	5%	1%	9%	10%	3%
other	0%	5%	11%	5%	3%	2%

Table 5: Please identify any of the items below as they relate to your company's experience with “environmentally responsible” or “sustainable printing”... By market segment (Note: Multiple responses permitted)

	comm'l digital b&w	comm'l digital color	comm'l sheetfed offset	comm'l web offset	other comm'l (gravure, letterpress, flexo, etc.)	prepress services	quick printing	specialty printing (business cards, novelties, etc.)
<i>Base</i>	20	81	424	112	15	25	108	22
it is not essential to our business or to our customers	14%	30%	21%	26%	0%	15%	27%	30%
it is critically important to only a select few customers	57%	36%	54%	41%	33%	23%	46%	40%
it is critically important to most of our customers	14%	12%	3%	13%	22%	8%	6%	10%
promoting our efforts improves our business image	43%	52%	59%	54%	22%	54%	40%	50%
it is just “a cost of doing business”	29%	27%	24%	24%	33%	15%	21%	30%
required for our company to bid on government contracts	43%	0%	8%	2%	0%	15%	10%	10%
it is more important to our company than it is to our customers at this time	0%	36%	32%	24%	11%	31%	44%	0%
it is more important to customers than it is to our company at this time	43%	15%	19%	26%	11%	15%	4%	10%
it is an expense without a major benefit	0%	12%	22%	28%	22%	8%	15%	20%
not having an environmental program prevents us from selling to some accounts we would like to have	43%	18%	12%	0%	0%	0%	13%	10%
other	0%	6%	5%	4%	11%	8%	0%	10%

Table 6: Please identify any of the items below as they relate to your company's experience with “environmentally responsible” or “sustainable printing”... By region (Note: Multiple responses permitted)

	Northeast	South	Midwest	Rockies & Southwest	Pacific
<i>Base</i>	191	113	320	91	89
it is not essential to our business or to our customers	27%	21%	21%	25%	23%
it is critically important to only a select few customers	48%	44%	48%	39%	51%
it is critically important to most of our customers	5%	6%	7%	8%	8%
promoting our efforts improves our business image	48%	44%	58%	61%	49%
it is just “a cost of doing business”	19%	29%	22%	28%	23%
required for our company to bid on government contracts	6%	10%	8%	6%	8%
it is more important to our company than it is to our customers at this time	34%	33%	30%	36%	15%
it is more important to customers than it is to our company at this time	18%	10%	20%	22%	13%
it is an expense without a major benefit	23%	13%	20%	22%	18%
not having an environmental program prevents us from selling to some accounts we would like to have	6%	21%	12%	6%	15%
other	8%	4%	5%	0%	5%

Certifications

Only 10% of all respondents say they currently have some form of certification from an environmentally sustainable printing authority. A further 20% say they will have one in the next 12 months. However, 27% say they don't expect to ever have one. Still, this works out to about 31% of all companies that say that 12 months from now they will have some form of green certification. (See Figure 3.)

Some highlights from the cross-tabulations:

- Not unexpectedly, large shops are vastly more likely than smaller shops to already have a green certification of some kind, and are more likely to have one on the way.
- More than four out of 10 (44%) of gravure/flexo/letterpress shops already have a green certification, as do 35% of commercial web offset shops and 31% of commercial sheetfed offset shops.
- Who doesn't expect to ever have one? 39% of prepress shops and 33% of quick printers.
- As we saw in the first question in this section, Northeast shops are the most likely to have green certification, which is also reflected here (33% say they already have one, while a further 28% will have one in the next 12 months).
- Shops in the Midwest are the most likely to not ever get any kind of green certification (23%).

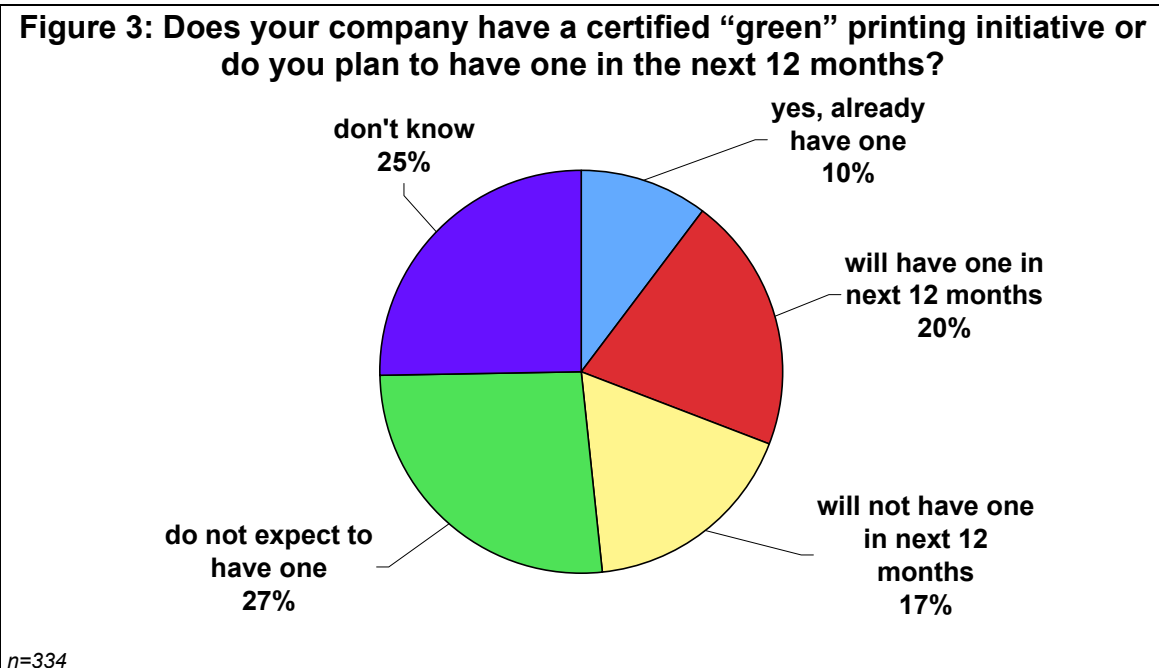


Table 7: Does your company have a certified “green” printing initiative or do you plan to have one in the next 12 months?... By employee size

	1–9 empl.	10–19 empl.	20–49 empl.	50–99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
yes, already have one	6%	8%	17%	40%	43%	10%
will have one in next 12 months	14%	31%	41%	33%	24%	20%
will not have one in next 12 months	20%	21%	9%	5%	4%	17%
do not expect to have one	30%	21%	23%	11%	15%	27%
don't know	30%	21%	9%	11%	14%	25%

Table 8: Does your company have a certified “green” printing initiative or do you plan to have one in the next 12 months?... By market segment

	comm'l digital b&w	comm'l digital color	comm'l sheetfed offset	comm'l web offset	other comm'l (gravure, letterpress, flexo, etc.)	prepress services	quick printing	specialty printing (business cards, novelties, etc.)
<i>Base</i>	7	33	165	46	9	13	48	10
yes, already have one	14%	15%	31%	35%	44%	0%	15%	30%
will have one in next 12 months	43%	42%	33%	22%	22%	8%	25%	40%
will not have one in next 12 months	29%	12%	10%	9%	0%	15%	10%	10%
do not expect to have one	14%	21%	13%	22%	22%	38%	33%	20%
don't know	0%	9%	13%	13%	11%	38%	17%	0%

Table 9: Does your company have a certified “green” printing initiative or do you plan to have one in the next 12 months?... By region

	Northeast	South	Midwest	Rockies & Southwest	Pacific
<i>Base</i>	79	48	128	36	39
yes, already have one	33%	25%	27%	19%	18%
will have one in next 12 months	28%	35%	28%	36%	26%
will not have one in next 12 months	8%	8%	8%	14%	26%
do not expect to have one	19%	17%	23%	17%	18%
don't know	13%	15%	14%	14%	13%

Sheetfed Offset vs. Digital Printing

Conventional wisdom has it that digital printing is more environmentally responsible than sheetfed offset printing, by virtue of the fact that digital lends itself to shorter runs in lieu of printing a lot of extra “waste” and that highly targeted digital printing is also used to drive people to electronic media, which are also generally perceived as being “greener.” So we asked our survey respondents about the extent to which they see digital printing as more environmentally friendly.

As Figure 4 shows, one-third of respondents say that “digital printing is definitely more environmentally friendly,” while a further 21% said that “digital printing is a little more environmentally friendly.” But more than one-fourth said they simply “don’t know.”

Well, stop the presses: digital printers are more likely than other market segments to feel that digital printing is more environmentally friendly than offset. Go figure.

Larger shops are more likely than smaller ones to feel that “both have the same overall impact, so in the end there is really no difference” while small shops are more likely to feel that “digital is definitely more environmentally friendly.”

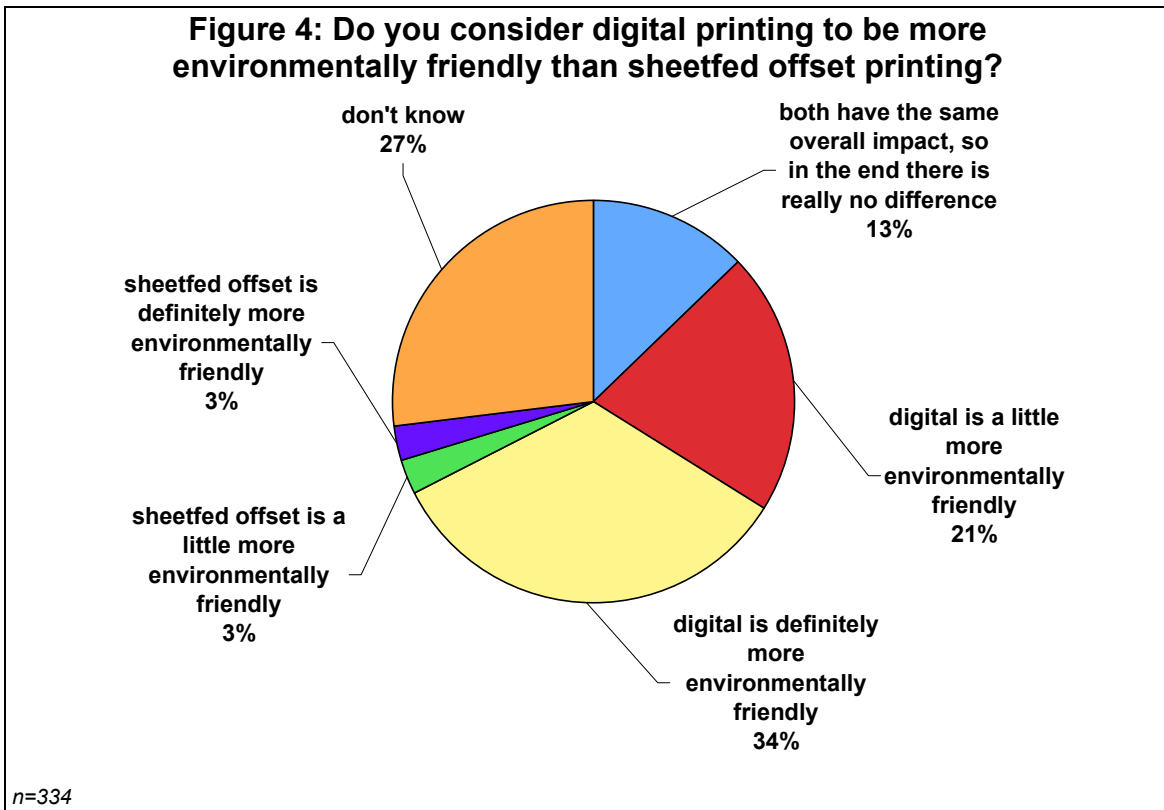


Table 10: Do you consider digital printing to be more environmentally friendly than sheetfed offset printing?... By employee size

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
both have the same overall impact, so in the end there is really no difference	10%	18%	13%	21%	22%	13%
digital is a little more environmentally friendly	18%	31%	35%	16%	19%	21%
digital is definitely more environmentally friendly	38%	26%	21%	30%	26%	34%
sheetfed offset is a little more environmentally friendly	1%	8%	4%	2%	3%	3%
sheetfed offset is definitely more environmentally friendly	4%	0%	1%	4%	1%	3%
don't know	29%	18%	25%	28%	29%	27%

Table 11: Do you consider digital printing to be more environmentally friendly than sheetfed offset printing?... By market segment

	comm'l digital b&w	comm'l digital color	comm'l sheetfed offset	comm'l web offset	other comm'l (gravure, letterpress, flexo, etc.)	prepress services	quick printing	specialty printing (business cards, novelties, etc.)
<i>Base</i>	7	33	165	46	9	13	48	10
both have the same overall impact, so in the end there is really no difference	29%	6%	24%	20%	22%	0%	2%	10%
digital is a little more environmentally friendly	14%	21%	26%	15%	22%	31%	33%	30%
digital is definitely more environmentally friendly	29%	58%	21%	28%	11%	15%	35%	10%
don't know	29%	12%	24%	33%	33%	54%	23%	40%
sheetfed offset is a little more environmentally friendly	0%	3%	4%	2%	11%	0%	2%	10%
sheetfed offset is definitely more environmentally friendly	0%	0%	2%	2%	0%	0%	4%	0%

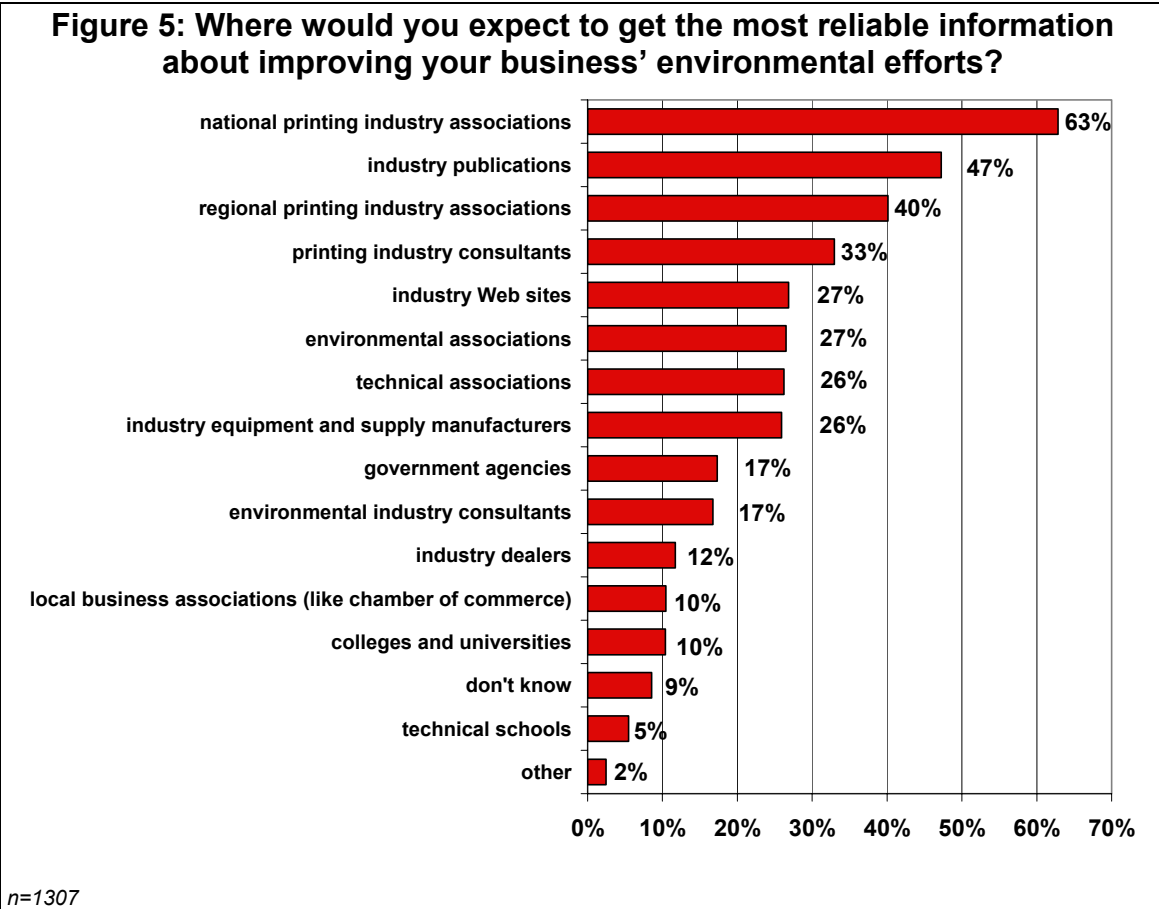
Table 12: Do you consider digital printing to be more environmentally friendly than sheetfed offset printing?... By region

	Northeast	South	Midwest	Rockies & Southwest	Pacific
<i>Base</i>	79	48	128	36	39
both have the same overall impact, so in the end there is really no difference	15%	23%	20%	17%	5%
digital is a little more environmentally friendly	35%	17%	23%	22%	23%
digital is definitely more environmentally friendly	29%	25%	20%	39%	36%
don't know	14%	33%	34%	14%	28%
sheetfed offset is a little more environmentally friendly	3%	0%	2%	8%	5%
sheetfed offset is definitely more environmentally friendly	4%	2%	1%	0%	3%
other	15%	23%	20%	17%	5%

Information Sources

The majority (63%) of survey respondents said that they expect “national printing industry associations” to be the top source for obtaining the most reliable information about improving their business’ environmental efforts. “Industry publications” came in second at 47% and “regional printing industry associations” came in at 40%.

Shops in the South and the Pacific regions are the most likely to select “regional printing industry associations.”



“Other” responses included:

- Franchisor
- Our customers and our personalized networks.
- A single chemical supplier.
- Now they want us to pay to be recognized.
- Industry vendor such as paper.
- Don't care.

Table 13: Where would you expect to get the most reliable information about improving your business' environmental efforts?... By employee size

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	250	119	276	238	424	1307
national printing industry associations	61%	62%	71%	75%	66%	63%
industry publications	53%	26%	41%	49%	42%	47%
regional printing industry associations	38%	41%	44%	54%	41%	40%
printing industry consultants	35%	28%	27%	30%	28%	33%
industry Web sites	26%	28%	28%	28%	27%	27%
environmental associations	24%	28%	25%	39%	53%	27%
technical associations	29%	15%	24%	32%	23%	26%
industry equipment and supply manufacturers	29%	10%	32%	16%	31%	26%
government agencies	17%	18%	17%	19%	26%	17%
environmental industry consultants	14%	15%	19%	33%	42%	17%
industry dealers	12%	13%	9%	9%	13%	12%
local business associations (like chamber of commerce)	13%	0%	11%	9%	8%	10%
colleges and universities	10%	5%	11%	18%	19%	10%
technical schools	6%	5%	3%	4%	8%	5%
don't know	11%	3%	3%	4%	3%	9%
other	1%	8%	4%	0%	0%	2%

Table 14: Where would you expect to get the most reliable information about improving your business' environmental efforts?... By market segment

	comm'l digital b&w	comm'l digital color	comm'l sheetfed offset	comm'l web offset	other comm'l (gravure, letterpress, flexo, etc.)	prepress services	quick printing	specialty printing (business cards, novel-ties, etc.)
<i>Base</i>	24	152	651	184	34	63	150	39
government agencies	14%	15%	18%	24%	56%	38%	21%	30%
colleges and universities	14%	21%	13%	13%	11%	23%	8%	10%
technical schools	14%	12%	5%	2%	0%	8%	6%	0%
national printing industry associations	71%	82%	71%	70%	56%	54%	56%	30%
regional printing industry associations	29%	48%	50%	41%	0%	31%	23%	40%
technical associations	43%	30%	22%	28%	11%	69%	19%	40%
environmental associations	29%	39%	32%	46%	44%	54%	29%	40%
printing industry consultants	14%	39%	30%	24%	33%	23%	29%	50%
environmental industry consultants	29%	21%	25%	39%	33%	38%	19%	40%
industry equipment and supply manufacturers	29%	42%	24%	26%	56%	38%	17%	30%
industry dealers	14%	9%	15%	13%	0%	8%	8%	0%
local business associations (like chamber of commerce)	0%	9%	10%	9%	0%	0%	6%	10%
industry publications	14%	55%	45%	41%	44%	69%	35%	40%
industry Web sites	29%	33%	30%	24%	33%	31%	21%	30%
don't know	0%	0%	6%	0%	0%	0%	6%	0%
other	0%	3%	2%	0%	0%	0%	8%	0%

Table 15: Where would you expect to get the most reliable information about improving your business' environmental efforts?... By region

	Northeast	South	Midwest	Rockies & Southwest	Pacific
<i>Base</i>	281	188	505	147	171
government agencies	20%	25%	17%	17%	33%
colleges and universities	19%	13%	10%	8%	21%
technical schools	4%	4%	5%	11%	8%
national printing industry associations	61%	69%	69%	72%	69%
regional printing industry associations	37%	50%	41%	39%	49%
technical associations	30%	21%	26%	25%	26%
environmental associations	32%	29%	40%	42%	36%
printing industry consultants	22%	35%	31%	33%	31%
environmental industry consultants	18%	29%	31%	25%	31%
industry equipment and supply manufacturers	24%	27%	25%	25%	33%
industry dealers	10%	13%	14%	8%	10%
local business associations (like chamber of commerce)	8%	6%	6%	6%	18%
industry publications	41%	40%	45%	58%	36%
industry Web sites	24%	27%	27%	31%	38%
don't know	5%	2%	5%	6%	0%

SECTION 2: GREEN ORGANIZATIONS AND CERTIFICATIONS

SGP, FSC, SFI—there is no shortage of acronyms and environmentally sustainable certification organizations, which are in danger of reaching critical mass and causing more confusion in the industry than is warranted. Naturally, everyone wants to get in early and put their stake in the ground (and is driving stakes into the ground sound environmental policy?), and we have no doubt that as times goes by, many will disappear through attrition, as is ever thus.

So, this section will attempt to either clear up—or propagate—the confusion of certification programs.

Sustainable Green Printing (SGP) Partnership

The SGP Partnership was established in 2007 as an independent third-party verification organization by PIA/GATF, SGIA (Specialty Graphic Imaging Association), and FTA (Flexographic Technical Association). According to its Web site (www.SGPPartnership.org):

The mission of the Sustainable Green Printing Partnership is to encourage and promote participation in the worldwide movement to reduce environmental impact and increase social responsibility of the print and graphic communications industry through sustainable green printing practices.

Its goals are:

...to define sustainable green printing and identify steps that help the printing industry to establish manufacturing practices and products that are more environmentally sustainable. This serves as the foundation for a broader sustainability initiative that also encompasses social and economic elements.

They then go on to define “sustainability” in the printing industry, which comprises three elements:

The Product—the focus on the product involves the input materials used to produce it, such as substrate, inks, coatings, adhesives, etc.

The Process—the process is the actual manufacturing process and involves prepress, press, and postpress equipment and supporting technology.

The Envelope—the envelope is the building, grounds, energy consumption, employees, and other supporting activities.

And furthermore:

Sustainable businesses adopt strategies and activities that allow the enterprise and its stakeholders to realize their profit goals in ways that protect, sustain, and restore the Earth’s life support systems for future generations. Ultimately, the printing industry strives to become sustainable through incorporation of economic, corporate social responsibility, and environmental stewardship into business operations while adhering to sustainable business practices.

As of this writing, the SGP is currently circulating a draft of the criteria used in conferring the SGP imprimatur on a printing company. The document was open for comments until April 18; keep an eye on their Web site for updated guidelines.

In the current draft, the guidelines for becoming an SGP Printer are as follows:

- Industry Regulatory Compliance: Commit to be in compliance within full range of applicable local, state and federal environmental, health and safety regulations. It is essential that the printer identify and understand their compliance obligations. Printers with any significant outstanding violations will not be considered for SGP Printer status.
- Guiding Principles: Commit to the SGP Guiding Principles...by signing the application.
- Management System: Establish and maintain a formal management system capable of advancing the printer's commitment to sustainable printing. The system needs to address aspects from within the product, process and envelope categories. The SGP Partnership is not mandating a specific type of management system, standard or protocol....
- Best Practices: Meet mandatory best practices listed in Appendix C [of the SGP's document]. For additional information on Best Practices, visit the SGP Partnership website at www.sgppartnership.org/documents/BestManagementPractices.doc
- Social Aspects: Comply with all relevant local, state, provincial, and federal employment laws.
- Metric System: Use the SGP Partnership Sustainability Metric System to measure and report on progress. The actual set of metrics to be used by the SGP Partnership program is under development. The metrics, once established, form the backbone of the reporting requirements.
- Annual Progress Report: Report on progress. This is essential to become more sustainable and serves as the means to demonstrate the commitment for excellence.
- Submission of an Annual Progress Report will be required....

Again, these are just draft guidelines and may change pending the collation of comments received.

Forest Certification and Chain of Custody Certification Programs

In response to the European forest crisis in Europe in the 1980s, various forest certification programs were developed an attempt to use the power of the private market to encourage compliance with forest management rules.

Forest Stewardship Council (FSC)

According to its Web site (www.fsc.org):

The Forest Stewardship Council (FSC) is an international organization that brings people together to find solutions which promote responsible stewardship of the world's forests.

- FSC is a stakeholder owned system for promoting responsible management of the world's forests.
- Through consultative processes, it sets international standards for responsible forest management.
- It accredits independent third party organizations who can certify forest managers and forest product producers to FSC standards.
- Its trademark provides international recognition to organizations who support the growth of responsible forest management.
- Its product label allows consumers worldwide to recognize products that support the growth of responsible forest management worldwide.
- FSC undertakes marketing programs and information services that contribute to the mission of promoting responsible forestry worldwide.
- Over the past 13 years, over 90 million hectares in more than 70 countries have been certified according to FSC standards while several thousand products are produced using FSC-certified wood and carrying the FSC trademark. FSC operates through its network of National Initiatives in 45 countries.

FSC has two types of certification:

Forest Management (FM) Certificate—Forest management certification involves an inspection of the forest management unit by an independent FSC-accredited certification body to check that the forest complies with the internationally-agreed FSC Principles of Responsible Forest Management.

If the forest complies with FSC standards, then the FSC accredited certification body issues a certificate for the operation. Certified forest operations can claim the forest products they produce come from a responsibly managed forest.

Before a certified forest operation can sell their products as FSC certified, they must also obtain chain of custody certification (FM/COC).

Chain of Custody (COC) Certificate—Chain of custody certification provides a guarantee about the production of FSC-certified products. Chain-of-custody is the path taken by raw materials from the forest to the consumer, including all successive stages of processing, transformation, manufacturing and distribution.

From a customer perspective, the FSC label represents a promise that is being made to them. Chain of custody standards are the mechanism FSC has to ensure that 'promise' is delivered.

Operations that have been independently verified for FSC chain of custody certification are eligible to label their products with the FSC logo.

FSC certification is carried out by FSC accredited certification bodies, but not by the FSC itself. This is said to be to the FSC can maintain its independence between its standards and requirements, and operations seeking certification.

Sustainable Forestry Initiative (SFI)

The Sustainable Forestry Initiative (SFI) was developed by the forestry industry itself, and is a North American organization (the FSC is global). According to the SFI's Web site (www.aboutsfi.org):

The SFI program is now fully independent. On January 1, 2007, a new, fully independent organization, the Sustainable Forestry Initiative, Inc. (SFI, Inc.) was created to direct all elements of the SFI program.

This independence solidifies the SFI program's strong market position as one of the world's leading forest certification programs.

The multi-stakeholder Board of Directors of SFI, Inc. is the sole governing body over the SFI Standard and all aspects of the program, including chain of custody certification and labeling, marketing and promotion. The diversity of the board members reflects the variety of interests in the forestry community. Board representatives come from environmental and conservation organizations, public officials, professional and academic groups, forest products industry, independent logging professionals and forest landowners. This balance ensures that the SFI Program protects the economic, environmental and social needs of our forests and communities.

Who can be certified and what does the SFI's certification process entail?

Any land management company (10,000 acres or more, typically), forest product manufacturer, paper printer, or other company that manages for and/or uses forest products may seek certification. Currently, a number of state land agencies, NGOs and universities are also certified to the SFI Standard.

Land management companies and primary producers must implement the 2005-2009 SFI Standard on all their operations to achieve certification. Secondary manufacturers, including paper printers, merchants and brokers, can become SFI chain-of-custody certified....

All SFI certifications have the same core requirements, including:

- Audits are consistent with international verification and auditing standards, and are based on and fully compatible with ISO Procedures & Protocols.
- Recertification audits are required every 5 years, along with annual surveillance audits, for all certified companies, including label users
- Audit summary documents must be posted to the SFI Program website (land management and primary producers only). At a minimum the summary shall include:
 - Audit scope and process;
 - Names of auditors;
 - A summary of findings, including non-conformances, corrective actions, opportunities for improvements and exceptional practices
- All parts of the Standard must be met for a successful third party certification.
- Audit firms (certification bodies) must complete a special accreditation program to perform all SFI certification audits.
- Both paper (desk) and field audits are required, which include professional foresters, biologists and wildlife specialists on every certification team.

In a nutshell, whether via the FSC or the SFI, companies are certified as to whether their management practices follow specified rules regarding environmental, social, and business functions of the forests. Chain of Custody programs simply ensure that an “audit trail” exists to guarantee the certified products are being delivered to the consumer/end user as promised.

ISO 14001

The International Standards Organization (ISO) also has an environmental certification in its “ISO 14000 family.”²

ISO 14001:2004 and ISO 14004:2004 describe environmental management systems (EMS). ISO 14001:2004 details the requirements for an EMS and ISO 14004:2004 gives general EMS guidelines. Other standards in the ISO 14000 family discuss specific environmental aspects, including labeling, performance evaluation, life cycle analysis, communication and auditing.

What is an EMS? Basically, an EMS meeting the requirements of ISO 14001:2004 is a management tool that enables an organization—of any size or type—to:

- identify and control the environmental impact of its activities, products or services
- improve its environmental performance continually
- implement a systematic approach to setting environmental objectives and targets, to achieving these and to demonstrating that they have been achieved.

The *raison d'être* of ISO 14001:2004 is to provide a framework for a holistic, strategic approach to an organization's environmental policy, plans, and actions. As the ISO says, “The underlying philosophy is that whatever the organization's activity, the requirements of an effective EMS are the same.”

The Bottom Line

The real question is: should any given company seek certification and, if so, from which organization? Or all of them?

This may sound like a cop out, but certification is a business decision a specific company will have to make. Naturally, there are resource demands involved with any certification program, and people and time need to be committed to meet certification requirements. And, needless to say, there are certification and audit fees as well.

² See www.iso.org/iso/iso_catalogue/management_standards/iso_9000_iso_14000/iso_14000_essentials.htm.

One other decision that needs to be made is whether having an official “seal of approval” from a conferring organization is the ultimate goal, or if simply running an environmentally responsible and sustainable business is. After all, these two items don’t automatically go together. As one commenter on the PrintCEO blog wrote, “I have been in numerous printing plants with ISO 14000 certification. In every case I experienced a sore throat and watering eyes after less than 30 minutes inside the plants. Having some types of certification are paper work trails only.”

There is nothing stopping a company from obtaining a set of certification requirements and criteria and simply implementing them. At the very least, they will have a manual for solid business practices, and not just a guide to becoming more “sustainable.” What often gets left out of discussions about “sustainability” is that many of these certifications are recipes for implementing good business processes in general. Ergo, following these guidelines and “best practices” ensures that you will run a tighter, leaner company. A tighter, leaner company is a more profitable company.

It really depends if the emphasis is on “greenwashing” or on actually making a positive impact. And that is a decision that only a business owner can make.

SECTION 3: GREEN PRODUCTION PROCESSES

Regardless of whether a given company opts to pursue official green certification, there are still steps that printers, their customers, and their suppliers can take to practice environmentally responsible print production. This section will detail some—but likely not all—the steps or processes that can be implemented to “green” the print production process.

Encourage the Use of Recycled Papers

Not all customers will want to avail themselves of (or pay extra for) recycled papers, but having it available or at least easily obtainable may attract customers with a green predisposition. (Prominently displaying printed samples on recycled paper can also help alleviate any quality concerns, too.) What constitutes recycled paper? In general, paper that contains a minimum of 30% post-consumer-waste (PCW) fiber. The Forest Stewardship Council (FSC) certifies paper and FSC certification is widely accepted as the best practice standard for forest management. Should FSC-certified paper be unavailable, chain-of-custody forms (see last section) can be used to track the source and origin of any virgin fiber. It may sound a bit like an episode of *Law and Order* (albeit a rather dull one), but there it is. The idea is to eliminate the use of paper with fiber from endangered forests.

The U.S. Environmental Protection Agency and the Environmental Paper Network has set minimum standards for recycled papers:

- for uncoated papers: 30% post-consumer recycled
- for coated papers: 10% post-consumer recycled

And in a case of “two steps forward, three steps back,” printing on recycled papers and then applying lamination makes that paper non-recyclable and non-degradable.

In one highly touted example of large-scale green printing, Scholastic Inc. published 12 million copies of the 784-page U.S. edition of *Harry Potter and the Deathly Hallows* on paper that contained a minimum of 30% PCW fiber and, indeed, two-thirds of the paper used for the first U.S. printing was FSC-certified. Additionally, 100,000 copies of a deluxe edition were printed on FSC-certified paper contained 100% PCW fiber. All the book jackets were also FSC-certified and contained 30% PCW fiber. Dig this: the jackets were manufactured using energy generated from wind power.

Other publishers are moving in recycled paper directions. Simon & Schuster Inc. has announced that it intends to print on paper comprising 25% or recycled fiber by 2012. They also plan to purchase shipping cartons made from 100% recycled PCW, recycle all inventory destruction as mixed-use paper, use of recycled office materials, and implement other energy-efficient practices in its offices and distribution facilities.

Use Soy Inks

Soy inks—that is, inks made from soybeans and not from petroleum—are nothing new. In fact, they were developed in the late 1970s by the newspaper industry in response to the high petroleum costs at the time. (Funny how history repeats itself.) Soy inks were first used in newspaper production in 1987 and have since become very popular. It has been estimated that soy inks are used in more than 95% of America's daily newspapers that circulate more than 1,500 copies per run.³ In addition, other estimates have suggested that about one-fourth of U.S. commercial printers in the United States use soy ink.⁴

In fact, soy ink has become so popular, that if one goes to the Web site of the National Soy Ink Information Center (www.soyink.com), they will find the following note:

The National Soy Ink Information Center is now closed. Due to the success of the soy ink industry, we feel there is no longer a need to continue our work promoting soy ink and its acceptance through the National Soy Ink Information Center. In short, the soy ink industry is such a success that you don't need us anymore!

The center was created and funded by the Iowa Soybean Association (ISA) using soybean checkoff dollars. Iowa farmers believed in soy ink and committed many resources to promoting its usage. Now that it is a success, ISA is moving those resources to fund exciting new innovations and programs that will build new markets for our soybeans.

ISA is making this change to the National Soy Ink Information Center because there is now a general awareness and acceptance of soy ink worldwide. People understand and value it as a renewable resource and alternative to petroleum-based inks.

If you have questions about soy ink, we urge you to visit soygrowers.com or call Julie Hawkins at 1-800-688-7692. Thank you for your support of soy ink. We wish you the best of luck with your business endeavors.

That's a first: someone taking down a Web site because it wasn't necessary!

³ Theodore Lustig, "Celebrating Soy, After 25 Years." August 1, 2004. Graphic Arts Online. <http://www.graphicartsonline.com/article/CA446851.html>.

⁴ Information about Soy and Soya Products, <http://www.soya.be/soy-ink.php>.

Look to Processless Platemaking

Even more than soy ink, computer-to-plate technology has become firmly entrenched in the printing industry and, for those that produce plates, is the de facto method of producing them. One of the latest developments in the computer-to-plate arena is so-called “processless plates.” Actually, there are a couple of variations on this theme:

- chemistry-free plates—exactly what the name suggests: no cleaning, baking, or gumming required, although there may be a rinsing step to wash away the non-image areas of the plate that have been ablated away by the imager;
- processless—more often than not includes at least a gumming step.

All of the major plate manufacturers are now offering—or will soon be offering—processless plates, and the goal is to make them compatible with the current crop of platesetters on the market.

The advantages of processless plates are not only smaller “carbon footprint,” but smaller equipment footprint as well, as shops don’t need bulky processing gear.

Proof Online or Electronically

By a happy coincidence, one of the major trends in proofing for the past 10 years has been a weaning of print buyers away from hard-copy proofing, with ever-increasing amounts of proofing being done electronically, either via emailed PDF, Quark, or InDesign files, or via online collaboration systems. The elimination of paper-based proofs—or at the very least limiting the number of them produced—is also highly touted by environmental sustainability advocates.

Reduce Your Carbon Footprint

One’s “carbon footprint” is the impact that their business activities have on the environment, measured in units of carbon dioxide. How does one measure one’s carbon footprint? Via a “carbon audit,” in which a company looks high and low for all the carbon emissions in their business and measures them. For example, electricity and natural gas used by a given facility contributes to one’s carbon footprint. The number of employees that drive to work alone also contributes, as do business trips.

Naturally, it takes a very committed company to perform a detailed carbon audit, but even without such a rigorous approach, simple steps can be taken, such as turning off computer monitors and printers when not in use; replacing incandescent light bulbs with fluorescent bulbs (and wait until LED light bulbs become commercially available, which prove to be better and safer than fluorescents); send and receive quotes and invoices electronically. Etc.

Carbon Offsets

What is a carbon offset? According to Wikipedia⁵:

A carbon offset is a financial instrument representing a reduction in greenhouse gas emissions. Although there are six primary categories of greenhouse gases, carbon offsets are measured in metric tons of carbon dioxide-equivalent (CO₂e). One carbon offset represents the reduction of one metric ton of carbon dioxide, or its equivalent in other greenhouse gases.

There are two primary markets for carbon offsets. In the larger compliance market, companies, governments or other entities buy carbon offsets in order to comply with caps on the total amount of carbon dioxide they are allowed to emit. In 2006, about \$5.5 billion of carbon offsets were purchased in the compliance market, representing about 1.6 billion metric tons of CO₂e reductions.

In the much smaller voluntary market, individuals, companies, or governments purchase carbon offsets to mitigate their own greenhouse gas emissions from transportation, electricity use, and other sources. For example, an individual might purchase carbon offsets to compensate for the greenhouse gas emissions caused by personal air travel. In 2006, about \$91 million of carbon offsets were purchased in the voluntary market, representing about 24 million metric tons of CO₂e reductions.

Offsets are typically generated from emissions-reducing projects. The most common project type is renewable energy, such as wind farms, biomass energy, or hydroelectric dams. Other common project types include energy efficiency projects, the destruction of industrial pollutants or agricultural byproducts, destruction of landfill methane, and forestry projects. Purchase and withdrawal of emissions trading credits also occurs, which creates a connection between the voluntary and regulated carbon markets.

How does one go about purchasing a carbon offset? According to WikiHow:⁶

The basic idea of a carbon offset is to figure out your personal contribution level to the global warming problem from such activities as driving, flying, or home energy use. This contribution is called a "carbon footprint." This term is named after carbon dioxide, the principal greenhouse gas. You can aim to balance out your carbon footprint by purchasing carbon offsets. The offset purchase funds reductions in greenhouse gas emissions through projects such as wind farms, which produce clean energy. As more clean energy is produced, this displaces energy being created from fossil fuels. By funding these reductions in greenhouse gas emissions, you balance out, or offset, your own impact by an equivalent amount. Carbon offsets help you to take personal responsibility for the environmental consequences of your activities.

...

⁵ See "Carbon Offset," http://en.wikipedia.org/wiki/Carbon_offset.

⁶ See "How to Buy a Carbon Offset," <http://www.wikihow.com/Buy-a-Carbon-Offset>.

- Calculate your “carbon footprint,” the sum of carbon emissions from all your carbon-producing activities. The method of calculation depends on the activity. For example, if you know the average MPG of your car and have a rough idea of how many miles a year you drive, you can figure this out yourself. Fortunately, there are plenty of online calculators that make it even simpler. Some leading examples include Clear-Offset, TerraPass, Native Energy, CarbonFund, and CarbonNeutral). There are significant variations in the way these calculators work so it is worth spending a little time to investigate the methodology used in each case to find which one is right for you.
- Understand how offsetting works. The growing industry of offset providers promises to balance out your carbon impact by ensuring that somewhere else on the planet, an equivalent amount of carbon dioxide is going to be reduced as a result of your offset. Generally speaking, the carbon dioxide isn't literally removed from the atmosphere; rather emissions of new carbon dioxide are prevented. In either case, the environmental benefit is the same. Different offset providers have different ways of reducing carbon. Furthermore, the projects they sponsor for carbon reduction can pop up anywhere on the planet, from methane reprocessing in Minnesota to wind farms in India.
- Research the options among different offset providers. Read the provider's information carefully and look for quality controls. As competition grows among offset providers, many now offer third party verification, providing assurances that your purchase has the intended impact. You should focus primarily on quality, but you can also consider price. Prices per ton of CO2 reduction can range dramatically, from \$5 to \$40. Think about what you're getting for your money, the verification provided, the source of the offsets – and it's perfectly acceptable to demand a decent bumper sticker, too! Comparison sites such as Carbon Catalog and EcoBusinessLinks can make it much easier to evaluate the options available.
- Buy the offset! Most offset providers sell through the Internet, so you'll be able to buy with a credit card and get confirmation of your new clean-living, clean-driving status within minutes.

In large manufacturing facilities (like print shops), this can be more complicated than in the home, but you get the idea.

As with most things, scams abound, and there is no shortage of phony carbon offset sellers, particularly on the Internet. Thus, companies interested in carbon offsets should do their due diligence and research providers starting with legitimate organizations, such as the SGP.

A post on the *Los Angeles Times* blog suggests how gray green can be:

While researching green printing companies, I ran across GreenerPrinter, which boasts on its home page that it's “100% Wind-Powered!” Cool! Wind turbines turning printing presses!

However, when I clicked on that claim, I was taken to a more detailed page with a more qualified statement: “GreenerPrinter’s energy usage is offset 100% by Wind Power!” No, wind turbines don’t actually produce all the energy used to turn the printing presses and light up GreenerPrinter’s offices—even if the bottom of every page of GreenerPrinter’s website states that the company is “100% Wind-Powered.” What GreenerPrinter actually does is get its energy from the grid we all use, then buy offsets, a.k.a. renewable energy credits (RECs), equivalent to its non-renewable energy consumption.⁷

Alternative Energy Sources

The above citation, and one of the data points from our survey data (see Section 1) suggests another option for sustainability: buying wind power. How does one buy wind power? There are two options. The first is to buy one or more wind turbines, mount them on one’s shop, and use it to supply at least part of the electricity needed to operate the plant. (We don’t know of any printing plant that actually runs this way.)

The other way is to buy wind power either through carbon offsets (see above) or, if your power company allows it, pay a premium to have some of your power generated via wind power. In New York state, for example, an organization called NY WIND lets individuals or businesses enroll in a program that lets you tap into energy produced by wind farms located in New York and Pennsylvania. According to their Web site (www.nywind.com), here is how it works:

With the green power options that most public NY utility [sic] companies offer, we can stop buying fossil fuel and nuclear power. For only about 10% more a month, we can make a real difference in helping bring about cleaner air and positive change. Purchase Wind power today!

What does this mean?

Basically, you, choose to buy your electric from wind power and pay about 10% more to do so. Your service remains the same and you can cancel at any time. Your supply dollars would be going to buy wind power from NY and PA, pictured here, instead of nuclear and fossil fuel generated power.

One of the factors that drives wind farm development is consumer demand for wind power– if people choose to buy wind power, then more wind turbines are built.

The enrollment form provides more information:

The cost for WIND Power is two and a half (2.5) cents more per kilowatt-hour than standard power. For the average New York City residential customer, this adds up to about \$10 per month more than ConEdison Solutions’ standard offer (may vary depending on your usage). By switching to WIND Power, you can reduce carbon dioxide emissions by the equivalent of planting about 418 trees or not driving about 5,325 miles each year.*

...

*Sales Tax Elimination:

⁷ “Wind-powered vs. offset by wind power,” February 10, 2008, post on the *L.A. Times* blog “Emerald City,” <http://latimesblogs.latimes.com/emeraldcity/2008/02/wind-powered-vs.html>.

The New York State sales tax on the delivery portion of your utility bill is eliminated (no tax) when you purchase energy from an energy services company such as ConEdison Solutions.

You get the idea. This will vary by state and by utility company but that is essentially how the process works. It is, however, a solution that is still very much in its infancy.

Like wind power, solar power can be used to power homes and businesses—and it is hardly a new technology.

Harnessing solar energy is obviously the *crème de le crème* of renewable energy, at least for the next several billion years. On the down side, demand for solar energy has not been high, so systems are still pricey to install.

The American Solar Energy Society has a useful Web site at www.findsolar.com that lets you calculate, based on your state, county, and estimated monthly electricity usage, a ballpark figure of what it would take to install a solar system.⁸ As an example, installing a solar system in a home in upstate New York with an average monthly electric bill of \$150 would cost upwards of \$54,000, although after rebates and tax credits, and whatever other perks may exist, the site says the net cost of installation would be \$28,960. They also make assumptions about increased property value, etc., and the site provides a variety of estimates of utilities savings. Obviously, if one were serious about this, a more rigorous investigation would need to be performed, but this is a place to start.

It could be said that the costs of installing a solar system are astronomical, as it were.

The rub with alternative energy is a classic chicken-and-egg conundrum: the costs are very high because there has been so little demand, which is because the costs are so high. Whether the “green” movement afoot today will stimulate demand for alternative energy schemes and thus allow economies of scale to kick in and bring the costs down remains to be seen.

The Changing Workplace

An April 17, 2008, story on WhatTheyThink presented the results of a North American survey released by Xerox to measure environmental consciousness in the workplace, which found that work colleagues may have some strong objections to those who don't walk-the-green-talk at the office.

Says the article⁹:

⁸ But not *the* Solar System, which would likely not fit in the average commercial print shop, even with the exclusion of Pluto.

⁹ “Xerox survey reveals top 10 environmental pet peeves,” April 17, 2008, WhatTheyThink, <http://members.whattheythink.com/news/newslink.cfm?id=31618>.

Almost 40% of U.S. respondents said their number one office environmental pet peeve was mindless printing resulting in abandoned pages at the printer, followed closely by leaving the lights on in unused offices (37%).

A review of the other top office pet peeves included: lack of recycling bins (33%); excessive air conditioning or heating (29%); excessive use of paper products—like plates and cups (27%); coworkers who don't recycle (27%), and coworkers who print single-sided instead of double-sided documents (24%).

“As we talk with our customers, we often find that environmental consciousness is left in the recycling bin that sits in employees' garages. While they're eco-friendly at home, the office is still breeding ground for bad habits,” said Patricia A. Calkins, vice president of Environment, Health and Safety at Xerox. “Yet, as this survey found, it takes a few small steps to make a big difference. Step number one: use the technology available in the office to cut back on paper use, reduce waste and reduce energy consumption. That can mean simply setting the office printers to default to two-sided printing, which cuts office paper use in half. Or, replace single function printers and copiers with multifunction systems, decreasing energy use.”

The survey, which polled 1,569 office workers across the U.S. and Canada, revealed that U.S. women (91%) consider themselves more eco-conscious than their male counterparts (86%). Age had a noticeable effect on environmental consciousness too. Of U.S. workers aged 18–34, 27% ranked themselves as “extremely” or “very green” versus the next generation of employees aged 35–44 (17%).

The top ten environmental pet peeves among U.S. office workers:

1. Mindless printing resulting in increased waste (40%)
2. Leaving lights on (37%)
3. Lack of recycling bins (33%)
4. Excessive air conditioning in summer and heat in winter (29%)
5. Excessive use of paper products, like cups, plates, etc. (27%)
6. Coworkers not recycling (27%)
7. Coworkers not printing double-sided when they can (24%)
8. Too many cover sheets when faxing or printing (24%)
9. Having to store paper copies of existing, electronic files (24%)
10. Leaving computer on and not powering down when going home (23%)

For smarter ways to “green” an office of any size, visit www.xerox.com/environment.

SECTION 4: CONCLUSIONS AND RECOMMENDATIONS

As we have said throughout this report, the decision to pursue an environmentally sustainable printing operation is one that can only be made by a shop owner.

Where to Start

Regardless, the first question to ask is, “do I need or want to?” There are two sides of this question. The first is, “Do I think environmentally sustainable initiatives are warranted?” and the second is “What would be the pure business ramifications of action or inaction?” The first is purely up to one’s personal judgment, but the second is a function of what customers demand. And the best way to gauge customer demand is to ask the customers. A survey on a printing company’s Web site or e-mailed to customers after the completion of a job, or even a casual conversation as orders are being picked up and dropped off can provide the business intelligence needed to make this decision.

We can say that, from what we have seen, more and more printing companies are distinguishing themselves by touting their green credentials. In an era where technology is no longer a distinguishing characteristic of printing companies, any leg up an given shop can get is a help.

Next Steps

Once the initial question has been answered—and we’ll assume the answer is “yes, we want to become a green printer”—the next question to ask yourself is “Is there value in becoming certified?” or “Is there more value in simply running a green shop and let that be its own reward?” If the former, will the advantages justify the effort and costs associated with green certification? The way to answer that question would be to visit the SGP’s Web site or talk to one of their representatives and ask what the costs and efforts are. Collate those answers with responses from customers and weigh the demand for green business practices with the costs and labor associated with compliance and certification.

Even if you can’t justify the “hassle” of the certification process there are still steps that can be taken, most of which have been covered on the previous section. For example, you can start carrying and encouraging the use of recycled papers. You can convert to processless platemaking. You can use soy inks or other eco-friendly consumables. You can use environmentally friendly coatings (like aqueous coatings) in lieu of lamination or lacquering. If you’re really dedicated, you can purchase carbon offsets, or wind power, or, if you have deep pockets, a solar system. And, of course, loudly tout all of the steps you have taken.

Once you have taken these simple steps, it then becomes a case of determining how close your shop comes to compliance with the requirements for certification. You may already be close.

Marketing the Results

One clichéd analogy seems apt: if a tree falls in a forest, does it make a sound? Likewise, if a commercial print shop practices environmentally sustainable printing and doesn't tell anyone, does it mean anything? In the sense of environmental protection, yes. But in terms of enhanced business, no. That is why marketing and PR are important components of green printing. The trade press eagerly covers shops that have gone green; getting the word out not only to the printing industry but even, perhaps, your local media outlets can go a long way to getting your name in front of the public—and, more importantly, the print-buying public. Participating in public forums, posting on blogs—or even starting a blog—can be excellent ways of providing information to potential customers and using that as a way of marketing your business.

For example, Parks Printing in Lubbock, TX, has a blog devoted to green printing called “The Green Printing Blog.”¹⁰ How did I find them? A Google search of “green printers.” So don't ignore the power of Google.

Recommendations for Industry Segments

Here is our general advice for the various components of the printing industry.

Commercial Sheetfed Offset Shops

Ask yourself the questions posed at the beginning of this section and determine a) the depth of your commitment to green initiatives, and b) the effort and costs you are willing to devote to them. Start with eco-friendly paper and consumables and go from there. Look for FSC-certified suppliers and supplies, and, if certification is something you want to pursue, contact the FSC or SGP and at least determine the requirements. If you already *are* green certified, publicize the fact. Educate past, present, and potential customers about green printing, either online or via special “workshops” held on site. And starting a blog—either via Blogger (www.blogger.com) or TypePad (www.typepad.com) is free. On the downside, maintaining a blog and updating it often enough to make it compelling can be highly labor-intensive.

¹⁰ See <http://greenprinters.blogspot.com>.

Commercial Web Offset Shops

You've likely gone through many rigors to comply with state and federal regulations and may already qualify for green certification. At the same time, publishers of all kinds are moving in green directions, so you are probably already printing on recycled paper. Touting your "green cred" could be a good way of attracting publishers, who are less tied to specific printers these days. As with sheetfed shops, try holding educational "green" workshops or open houses for present and prospective customers. Again, the key is not only to practice environmentally sustainable initiatives but also to publicize the fact.

Digital Printers

There is a sense that digital is more environmentally friendly than offset, by virtue of the fact that digital runs tend to be shorter, there is less press waste, and there is little if any chemistry and processing involved in digital processes. Shops that use inkjet can use water-based inkjet inks which are eco-friendly. Again, recycled papers are a good first step toward more green initiatives. Most digital equipment manufacturers have some kind of toner/cartridge recycling program—avail yourself of it (after all, technically you've already paid for the cost of it when you bought the toner so you might as well use it!).

Graphic Designers/Publishers/Print Buyers

The industry has been operating under the assumption that the driving force behind the green printing movement is the customer and his or her demands, although we have seen very little actual data supporting this. When buying print, seek out printers that tout their green credentials and/or have FSC or SGP certification. (Any printers reading this take note!) Specify recycled/FSC-certified papers and other consumables and, if this is an important issue for you, press your print providers to change their practices accordingly. This is, after all, the very definition of a market-based solution.

The Final Word

We've been here before. In the 1990s, as the Internet and computing took the world by storm, companies in every corner of the economy were driven to invest heavily in technology infrastructure, workstations, servers, networks, etc. In the 1980s, companies needed to make many of their first forays into computerization. Before then, there was investment in mainframes. Before that...well, there has always been *something*. This is the nature of the beast; in a nation—in a world—that is ever-changing technologically, companies need to keep up, not just because the new technologies make businesses more streamlined (at least in theory), but also to put on a good face. Just as you would likely not want your accountant to look like someone out of a Charles Dickens novel—prim, eyeshaded men entering figures in large ledger books with quill pens—so, too, would most folks not want to work with a print shop that still used flatbed presses straight out of Colonial Williamsburg...or even a letterpress press from the 1950s. Time marches inexorably forward.

It could be argued that the pressure to invest in environmentally sustainable technologies and initiatives is unlike previous investment pressures in that, as many on our survey said, it is “an expense without a tangible benefit.” Or is it? The issue of climate change has strangely enough become a political issue when it is really a scientific one, but the point of this report is not to make the argument one way or the other. The fact is, in the eyes of the public, climate change is a *fait accompli*. So it goes. How, then, do businesses in general, and print businesses in particular, respond?

The trick is not to see green initiatives as a bunch of loathsome de facto regulations imposed on business, but rather as an opportunity. Organizations such as PERC advocate market-based solutions to environmental issues, and this is what we have been seeing. The pressure to go green has not come from government; it has come from the market, which is demanding environmentally sustainable options.

As Senator John McCain, the presumptive Republican nominee for President said, in an address to the Associated Press, “Even if we're wrong and there is no climate change, the worst that will happen is we leave a cleaner planet to our kids.”¹¹ Q.E.D.

¹¹ April 14, 2008, event attended by this writer for WhatTheyThink.

APPENDIX A: COMPLETE SURVEY DATA

The following tables represent the complete set of data obtained by the March 2008 survey of WhatTheyThink members conducted by the Economics and Research Center.

Table 16: What is the primary business at this location? (Choose ONLY ONE)

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
binding and finishing services	0%	5%	0%	0%	0%	1%
commercial digital b&w	0%	3%	1%	0%	5%	1%
commercial digital color	16%	13%	11%	7%	2%	14%
commercial sheetfed offset	20%	51%	73%	68%	43%	32%
commercial web offset	0%	3%	4%	9%	37%	3%
newspaper publisher/printer, non-daily newspaper	1%	0%	0%	0%	0%	1%
other commercial (gravure, letterpress, flexo, etc.)	1%	0%	1%	0%	3%	1%
prepress services	5%	3%	4%	5%	2%	5%
quick printing	56%	21%	5%	7%	2%	42%
specialty printing (business cards, novelties, etc.)	1%	3%	0%	4%	5%	2%

Table 17: Is this location part of a larger multi-location printing firm or franchise?

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
No	84%	82%	77%	82%	53%	82%
Yes	16%	18%	23%	18%	46%	18%

Table 18: In terms of your revenues at this location, how has the first quarter of 2008 compared to the first quarter of 2007?

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
decreased between 1% and 5%	1%	13%	15%	11%	17%	5%
decreased between 6% and 10%	15%	5%	8%	16%	9%	13%
decreased more than 10%	26%	8%	12%	9%	2%	20%
increased between 1% and 5%	16%	15%	16%	11%	35%	17%
increased between 6% and 10%	2%	10%	12%	5%	10%	5%
increased more than 10%	14%	21%	12%	12%	6%	14%
stayed about the same	26%	28%	25%	37%	21%	26%

Table 19: Do you expect your full-year 2008 revenues compared to 2007 to...

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
decrease between 1% and 5%	2%	5%	7%	4%	11%	3%
decrease between 6% and 10%	11%	3%	3%	11%	5%	9%
decrease more than 10%	8%	8%	4%	2%	2%	7%
increase between 1% and 5%	22%	13%	25%	12%	28%	21%
increase between 6% and 10%	12%	26%	17%	32%	23%	16%
increase more than 10%	26%	31%	21%	14%	16%	25%
will stay about the same	19%	15%	23%	26%	15%	19%

Table 20: Does your company... By employee size (PLEASE CHECK ANY THAT APPLY)

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	96	61	130	126	218	631
promote recycled papers as better than "typical" papers	32%	31%	23%	30%	26%	30%
identify itself in marketing and sales materials and promotions as an environmentally sensitive business	22%	23%	36%	58%	47%	26%
justify new equipment purchases because of their more favorable environmental impact	20%	13%	27%	26%	20%	20%
have special "green" certifications from independent organizations	5%	23%	31%	60%	57%	15%
perform an "environmental impact" statement or audit	4%	8%	15%	14%	34%	7%
buy wind power	5%	8%	4%	9%	6%	5%
buy carbon credits	0%	0%	0%	2%	2%	0%
buy/use solar power	0%	0%	0%	0%	1%	0%
none of the above	60%	51%	39%	23%	25%	53%

Table 21: Please identify any of the items below as they relate to your company’s experience with “environmentally responsible” or “sustainable printing” (PLEASE CHECK ANY THAT APPLY)

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	132	93	194	143	255	817
it is more important to our company than it is to our customers at this time	48%	33%	36%	19%	24%	43%
it is critically important to only a select few customers	35%	56%	52%	53%	49%	41%
promoting our efforts improves our business image	27%	38%	57%	67%	61%	35%
it is not essential to our business or to our customers	34%	23%	27%	12%	17%	30%
it is just “a cost of doing business”	23%	33%	15%	26%	26%	24%
it is an expense without a major benefit	16%	18%	16%	26%	18%	17%
it is more important to customers than it is to our company at this time	4%	13%	20%	21%	23%	8%
not having an environmental program prevents us from selling to some accounts we would like to have	8%	3%	15%	9%	16%	8%
required for our company to bid on government contracts	5%	10%	9%	4%	10%	6%
it is critically important to most of our customers	2%	5%	1%	9%	10%	3%
other, please specify	0%	5%	11%	5%	3%	2%

Table 22: Does your company have a certified “green” printing initiative or do you plan to have one in the next 12 months?

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
yes, already have one	6%	8%	17%	40%	43%	10%
will have one in next 12 months	14%	31%	41%	33%	24%	20%
will not have one in next 12 months	20%	21%	9%	5%	4%	17%
do not expect to have one	30%	21%	23%	11%	15%	27%
don't know	30%	21%	9%	11%	14%	25%

Table 23: Do you consider digital printing to be more environmentally friendly than sheetfed offset printing?

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	64	39	75	57	99	334
both have the same overall impact, so in the end there is really no difference	10%	18%	13%	21%	22%	13%
digital is a little more environmentally friendly	18%	31%	35%	16%	19%	21%
digital is definitely more environmentally friendly	38%	26%	21%	30%	26%	34%
sheetfed offset is a little more environmentally friendly	1%	8%	4%	2%	3%	3%
sheetfed offset is definitely more environmentally friendly	4%	0%	1%	4%	1%	3%
don't know	29%	18%	25%	28%	29%	27%

Table 24: Where would you expect to get the most reliable information about improving your business' environmental efforts? (PLEASE CHECK ANY THAT APPLY)

	1-9 empl.	10-19 empl.	20-49 empl.	50-99 empl.	100+ empl.	Total
<i>Base</i>	250	119	276	238	424	1307
national printing industry associations	61%	62%	71%	75%	66%	63%
industry publications	53%	26%	41%	49%	42%	47%
regional printing industry associations	38%	41%	44%	54%	41%	40%
printing industry consultants	35%	28%	27%	30%	28%	33%
industry Web sites	26%	28%	28%	28%	27%	27%
environmental associations	24%	28%	25%	39%	53%	27%
technical associations	29%	15%	24%	32%	23%	26%
industry equipment and supply manufacturers	29%	10%	32%	16%	31%	26%
government agencies	17%	18%	17%	19%	26%	17%
environmental industry consultants	14%	15%	19%	33%	42%	17%
industry dealers	12%	13%	9%	9%	13%	12%
local business associations (like chamber of commerce)	13%	0%	11%	9%	8%	10%
colleges and universities	10%	5%	11%	18%	19%	10%
technical schools	6%	5%	3%	4%	8%	5%
don't know	11%	3%	3%	4%	3%	9%
other, please specify	1%	8%	4%	0%	0%	2%

APPENDIX B: RESOURCES

The number of organizations, sites, and publications that are cropping up has been increasingly seemingly exponentially. The following list is by no means thorough, but is a good start for anyone interested in more information.

Organizations

American Forest and Paper Association, www.afandp.org

American Soybean Association (redirect from National Soy Ink Information Center), www.soygrowers.org

Association of American Publishers, www.publishers.org

Co-op America's Woodwise Program,
www.coopamerica.org/programs/woodwise

Direct Marketing Association, www.the-dma.org

Forest Stewardship Council, www.fsc.org

Green Press Initiative, www.greenpressinitiative.org

International Standards Organization (ISO), www.iso.org

Sustainable Green Printing Partnership, www.SGPPartnership.org

World Business Council for Sustainable Development, www.wbcsd.org

Publications

The Ecopreneurist, ecopreneurist.com

Green@Work, www.greenatworkmag.com

Web Sites/Blogs

Environmental Sustainability in Printing & Publishing, www.sustainprint.com

The Green Printer blog, greenprinters.blogspot.com

Green Printing, sections.whattheythink.com

PrintCEO blog, printceoblog.com

WhatTheyThink, www.whattheythink.com

Filename: Green Report-042108
Directory: C:\Documents and Settings\Richard\My Documents\WTT
Proposals\Green Special Report
Template: C:\Documents and Settings\Richard\Application
Data\Microsoft\Templates\Normal.dot
Title: Publishers Weekly Consumer Religion and Spirituality
Book Market Study
Subject:
Author: TWGA
Keywords:
Comments:
Creation Date: 4/21/2008 6:29 AM
Change Number: 21
Last Saved On: 4/22/2008 6:32 AM
Last Saved By: The Industry Measure
Total Editing Time: 134 Minutes
Last Printed On: 4/22/2008 6:34 AM
As of Last Complete Printing
Number of Pages: 48
Number of Words: 14,209 (approx.)
Number of Characters: 80,994 (approx.)