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Green business owners, advocates, workers and trainees attend Building A Green Economy Advocacy Day, at the The Ella Baker Center in Oakland, CA.
Capturing the Big Green Opportunity for Small Business

Green market opportunities and operating practices should matter to owners of the smallest businesses. As this report makes clear, that’s not just for ethical reasons. Our work – including a national survey of more than 1,300 business owners – reveals a compelling business case for green.

This report is the first major study to look at the green economy from the perspective of small business owners, including owners of “microbusinesses” – those businesses with 5 or fewer employees that represent 88% of businesses in the United States. It’s also the first report to consolidate market data on the growth of green segments across a range of industries – trends that reveal both immense opportunities and some significant challenges for these small businesses.

Here’s what we found:

Green market segments in the United States are growing fast. Growth rates of “green” segments are outpacing conventional segments in every industry where we collected data – for example, over the decade ending in 2011, the U.S. organic food category grew at a rate of 238% compared to 33% growth for the overall food market, and most forecasts indicate that the shift to green will only accelerate across industries. (See “The Growing Green Economy,” page 22-31.)

Green “operational efficiency” practices are increasingly mainstream for companies, including the smallest businesses. While some businesses in our survey had adopted only the more common green practices, like double-sided printing, a surprising number were retrofitting their lighting systems, redesigning products to reduce energy and water requirements, and installing solar photovoltaic panels. (See “Environmentally-Beneficial Savings,” pg. 35.)

The small businesses in our survey reported growing demand for green products and services and greater competition for green-oriented customers. At the same time, business owners reported that their green offerings tend to be profitable, often more profitable, than their less environmentally beneficial offerings. (See “Green Demand” and other survey results, pages 12-17.)

Some small businesses at the frontier of capitalizing these green opportunities are capturing significant market and operational advantages. We segmented our 1,305 survey respondents into 3 groups based on the green attributes of their products and services and their level of adoption of specific actions intended to make more efficient use of water, energy and/or waste. The “deep green” segment in our survey (those business owners whose answers reflected the most intense embrace of “green”) reported stronger performance compared to their “light green” peers on nearly every dimension we tested. (See “The Green(er) Edge” pages 18-21.)

A nascent “green” support network has sprung up almost overnight. We identified more than 160 green certification programs and more than 35 specialty industry trade associations dedicated entirely to green, most of which have appeared since 2001. The explosive growth of this support infrastructure is a clear sign of a rapidly expanding green economy. (See “The Organizations that are Growing Green,” pages 32-34.)

Yet, in spite of the clear economic and competitive benefits of green and this emerging green support system, many small businesses are poorly positioned to capitalize on the opportunities in this new economy. Many “light green” business owners lack the market insight, customer and peer relationships,
Capturing the Big Green Opportunity

Urban Roots uses sustainable agriculture as a means to transform the lives of young people as they increase the access of healthy food in Austin, TX.

know-how, and capital to compete in the emerging economy. (See “Challenges and Recommendations,” pages 40-43.)

And overall, unlike large companies, which tend to have full-time sustainability staff and are far more likely to have aggressive sustainability strategies, few small businesses have dedicated capacity around green. By their nature, small businesses – especially the very smallest – lack the resources to hire dedicated, knowledgeable staff to harness the value in green. Only the most green-committed small businesses (primarily those who understood green markets and practices from day one) are truly integrating green into their strategies and operations. (See “The Green(er) Edge” pages 18-21.)

Small businesses risk ceding the “Big Green Opportunity” to larger companies that embrace green and have more resources to invest, but they have real opportunities for capturing value. In categories where consumer demand is driving green growth, small businesses can succeed through laser-like focus on meeting needs of existing customers and attracting new customers willing to pay “Green Premiums.” In areas where green market growth is a response to regulation or the barriers to entry are higher, small business owners often need additional support and guidance along the way. Sometimes that comes in the form of interpretation of new environmental rules and their implications – other times it comes in the form of financing that recognizes the value in green markets and efficiency practices. (See “Big Green Challenges,” pages 40-43.)

So what does all of this mean?

There IS a Big Green Opportunity for small businesses. But if small businesses do not move to take advantage of the growing market potential,
they will fall behind in the emerging green economy. Moreover, if small businesses are not able (or willing) to take advantage of costs savings from efficiency opportunities, they risk being further disadvantaged relative to their larger peers in the emerging resource-constrained environment.

If that is the case, we could end up with a top-heavy green economy, one that’s better for the planet but economically exclusive. The benefits won’t trickle down and small business will suffer. That’s not in anyone’s best interest.

We think it is a risk, but it’s by no means inevitable. While there is no “silver bullet” solution to helping small businesses succeed in the green economy, there are many opportunities for small business owners and the robust network of stakeholders that care about the growth of Main Street businesses to foster their success in this new economy. Our hope is that this report contributes to engaging business owners and other stakeholders in a dialogue.

This is truly a Big Green Opportunity. Let’s make sure that it’s an opportunity for all.

Russ Gaskin
Chief Business Officer
Green America

Lauren Frederic
Program Officer
EcoVentures International

Tammy Halevy
Senior Vice President, New Initiatives
Association for Enterprise Opportunity
The expansion of the green economy is seen in the growth of green market segments, certifications, higher education programs and industry associations.

- From 2002-2011, the organic food segment grew 238% while the overall food market grew 33% (page 25)
- From 2006-2011, the green building segment grew 1,700% while the overall construction market contracted 17% (page 27)
- From 2002-2011, imports of Fair Trade certified foods grew 1,442% while overall food imports declined 38% (page 29)
- From 2001-2010, assets in Socially Investing portfolios grew 32% while assets in investments overall grew 27% (page 28)
- From 2002-2011, the organic non-food segment grew 400% while the equivalent overall non-food market grew 33% (page 26)
- From 2003-2011, the number of U.S. green industry associations has doubled since 2001 (page 32)
- From 2001-2010, assets in Socially Investing portfolios grew 32% while assets in investments overall grew 27% (page 28)
- The number of U.S. green certifications has grown 180% since 2001 (page 33)
- From 2002-2011, use of renewable energy grew 456% while use of energy from non-renewable fuels fell 3.2% (page 29)
- From 2002-2011, imports of Fair Trade certified foods grew 1,442% while overall food imports declined 38% (page 31)
- The number of Green-oriented MBA programs grew 300% from 2006 to 2011 (page 34)
The green segments are growing across all industries, and gaining market share from conventional markets. (see profiles of these green segments starting on page 26)

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<thead>
<tr>
<th>Year</th>
<th>FAIR TRADE FOOD</th>
<th>ORGANIC FOOD</th>
<th>ORGANIC NON-FOOD</th>
<th>SOCIAL INVESTING</th>
<th>GREEN BUILDING</th>
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(U.S. sales of coffee, tea, and cocoa in millions of pounds)
(U.S. sales in billions of dollars)
(U.S. sales in billions of dollars)
(U.S. assets under management in trillions of dollars)
(U.S. consumption in quadrillion Btu's)
(U.S. starts in billions of dollars)
In this section, you’ll find insights from a ground-breaking study of over 1,300 small business owners about their experiences with green products and services and operational efficiency.

**Three Shades of Green**

- **Light Green**
  - 38% (n=477)
  - May market their products and services using terms like “environmentally-friendly” and tend to implement simple environmentally-beneficial actions, if any.

- **Mid-Green**
  - 35% (n=446)
  - Market their products as having deeper green attributes such as “organic” and tend to adopt a moderate number of environmentally-beneficial actions.

- **Deep Green**
  - 27% (n=337)
  - Heavily market their products and services as green and have implemented many environmentally beneficial actions.

* This study primarily examined the environmental aspects of green, but included labor supply chain practices.
We compared experiences and perceptions among three groups of U.S. small business leaders on two major factors:

1. The nature of the terms they used to describe the social and environmental attributes of their products and services.

2. The depth of their adoption of environmentally-beneficial activities, based on cost and difficulty of implementation and social and environmental benefit of those activities.

This sample was not meant to reflect the population of US small businesses, but to understand the “green trendline” moving across the small business sector.

Deep Green businesses offered products and services with strong environmental and social value, and heavily adopted environmentally beneficial practices in their operations.

Light Green businesses used marginally green descriptors to describe their products and services (e.g. “natural”) and tended to adopt very few environmentally beneficial practices.

Mid-Green businesses fell between the other two green groups, with moderate adoption of green language and practices.
Customers didn’t just want to buy green products and services. According to the green business owners we surveyed, customers preferred their businesses because of their environmentally beneficial practices.

A BONUS FOR GREEN BEHAVIOR?

Deeper green businesses were significantly more likely to realize the bottom-line benefits of green. We found that deeper green businesses were more successful because:

1. Their customers were more likely to request green products and services,
2. They could reach new green customers,
3. Customers bought from them because of their green practices.

While the first two consumer motivations fit with conventional wisdom, the fact that customers would buy from a business because of the behaviors of the business itself points to the unconventional preferences of the green consumer segment.

Of course, the effect varied by the extent to which a business disclosed its internal green practices. Those that didn’t failed to realize this preference form their customers.
Increased Green Sales Drive More Green Offerings

75% of all survey respondents planned to expand their portfolios of green product and service offerings.

The deeper green a business, the more likely it was to report increased sales from its environmentally beneficial products or services during the down economy, from 2008-2010.

As a result, deeper green businesses were more likely to plan expansion of their portfolios of green products and services than their less-green peers.

INCREASED DEMAND

Unlike their light green counterparts, deep green businesses strongly agreed that their customers specifically request green products and services.

During the interviews, we found that this was in part attributable to the “law of attraction.” Green businesses and their owners attract consumers seeking green living information, and they are becoming adept at leveraging this position as green experts to enhance reputation, market positioning and sales.

...AND NEW CUSTOMERS

Deeper green businesses were much more likely than their less-green peers to agree with the statement “Being green has enabled my business to reach new customers.”

While we didn’t get clear empirical insight into the basis for this belief, we did get anecdotal insight. For example, one real estate agent told us that “there are a lot of Realtors® in my area, but I’m the only one who markets myself as an ‘EcoRealtor.’ People who want greener homes find me through the noise because I stand out as green.”

“Consumer demand is the primary driver of investment in sustainable initiatives today...and companies [we surveyed] reported that they can charge an average 19 percent premium for sustainable products and services.”

(Accenture, “Long-Term Growth, Short-Term Differentiation and Profits from Sustainable Products and Services,” 2012)
79% of survey respondents strongly agreed that offering green products and services gave their business a competitive advantage.

70% report that others in their industries have succeeded by offering green products or services.

62% offer green products or services partly because it’s a "competitive requirement" in their industry.

58% agree that offering green products or services has enabled them to expand their offerings.

77% were successful in growing sales of their own green products and services through the down economy, from 2008-2010.

80% experienced increased sales of their green products and services, partly because they embraced the challenge of competing on green.

84% were "rewarded" for their expansion in green products and services with increased sales.
“GREEN COMPETITION” GROWING ACROSS SECTOR, MORE INTENSE IN SOME INDUSTRIES

The perception that competition around green is intensifying was shared by businesses all along the spectrum of green-ness in our study. However, the intensity of “green competition” varied widely by industry.

“High-footprint” industries reported the most competition around green, particularly food & agriculture, building & construction, lodging & accommodation, manufacturing, and real estate, rentals, & leasing, while service businesses reported less intense competition.

It’s certainly no coincidence that the businesses reporting the most “green competition” are in the industries with the fastest-growing green segments. These industries increasingly have “green mini-mums” that any business in that industry must adopt to remain competitive, though opportunities remain for deeper green companies to differentiate themselves.

In other industries with less green competition, early movers can still seize a “light green” advantage.

PROFILES: GAINING THE GREEN ADVANTAGE

Business: Accounting Business Concepts
Owner: Paula Green
Industry: Financial Services

Advantage: Paula Green has added an attractive green offering to her traditional accounting business: With support from EcoVentures, she now helps homeowners and businesses in her area earn state and federal incentives for their energy, waste, and water efficiency improvements.

She has helped a number of her clients secure incentives like the Maryland Biodiesel Tax Credit, which allows individuals and corporations to take a $0.03/gallon income tax credit for purchases of biodiesel used for space or water heating, helping them save up to $500 per year.

Business: Warwick Fulfillment Solutions
General Manager: Chris Mushinsky
Industry: Wholesale/Fulfillment

Description: Chris Mushinsky initiated a comprehensive waste reduction program that realized major cost savings. Through the program, Warwick substantially decreased its use of non-biodegradable waste like bubble wrap and styrofoam pellets, reduced delivery costs and waste, and reduced energy waste.

While enjoying the bottom-line cost savings from these efforts, they were also able to leverage the initiatives in the marketplace. Many of Warwick’s clients now promote Warwick’s green initiatives to their own customers—free marketing for Warwick.

Business: Better World Club
Owner: Mitch Rofsky
Industry: Auto Insurance

Description: Mitch Rofsky has no qualms about taking on the world’s biggest automobile advocacy group—and making money by it. Leveraging consumer concerns that AAA heavily advocates for unsustainable fuel and road policies, Better World provides competitive roadside assistance and insurance programs to automobile drivers and bicyclists, while advocating for sustainable policy.

By identifying a green consumer “pinch point” and providing value-competitive benefits, Better World has been able to build a profitable and growing business from the ground up.
Businesses across our green segments reported profitability in their green products and services—and some reported higher profitability with these offerings than with their non-green offerings. Yet there was no significant difference among green segments in the reported profitability of their green offerings. Why?

The evidence suggests that while green products and services often cost more to develop and produce, deeper green businesses reported a greater willingness among their customers to pay more for green products and services, so their profit margins remain consistent with those of their non-green competitors.
HIGHER COSTS IN AREAS

Deeper green businesses reported having higher costs in their supply chains, materials, packaging and certifications than their less-green peers, who, according to our survey, were more likely to use green terms to describe their products and services than to actually invest in green practices.

“Cost Internalization,” that is, paying more to internalize social costs that conventional businesses externalize to other stakeholders (fair trade is a good example), accounted for much of the higher sourcing and production costs for the deep green segment.

LOWER COSTS IN AREAS

Deeper green businesses reported greater efficiencies in energy, waste and water than their less-green peers, due to their greater investment in staff training, technology, energy and water recapture, reuse, and transportation and production efficiency.

They demonstrated a much higher willingness to invest larger amounts of capital in operational efficiency, thought they were also far more likely to take advantage of rebates and incentives to help finance their environmentally beneficial activities (in part, we assume, because they were aware of these in the first place).

HIGHER SALES PRICES

Deep green businesses were more likely than their lighter green peers to report that their customers are willing to pay more for green products and services.

While the assertion that consumers will pay more for green isn’t generally supported by consumer behavior studies, our study found a more reliable insight: Green consumers are paying premiums to truly green businesses for authentic green products and services, with the largest price premiums accruing to the deeper green businesses.

Business: Equal Exchange
Owners: Employees
Industry: Packaged Foods
Description: As a 100% Fair Trade business and one of the leading democratic worker cooperatives in the country, Equal Exchange pays a premium to their farmer partners, often exceeding even prime Fair Trade prices. This high purchasing cost and culture of equity drive creative cost minimization by the committed worker-owners. By cutting out intermediaries, capping executive salaries, and securing capital from values-driven investors and creditors, Equal Exchange is able to remain profitable and drive future growth, furthering expanding its ability to drive returns to producer communities around the world.

One of the upsides of paying premium prices to producers is the deep social capital Equal Exchange leverages. In addition to its extraordinary “word-of-mouth” network, Equal Exchange is the preferred provider of coffee and chocolate to thousands of faith communities around the U.S.
THE GREEN(ER) EDGE

Leaders of deep green businesses reported greater growth potential, more competitive advantage, higher revenue growth, and higher sales prices than their less-green peers.

Sisters Marjorie and Jasmine Simon of Anything Vegan™ promote their 100% vegan cooking sauces at a Green Festival® event. The company is growing rapidly by serving the fast-growing vegan and vegetarian consumer markets.
EXPANSION POTENTIAL

Deep green businesses were significantly more likely then their lighter green peers to agree that being green has enabled them to expand and diversify their product and service offerings.

This appears to be based partly on the “trust premium” that develops between conscious consumers and businesses that they perceive as authentically caring for the common good. Leaders of deeper green businesses were able to leverage that trust to expand through cross-selling. Their core customers supported faster uptake of new offerings, leading to quicker ROI and profitability.

Alternatively, lighter green businesses were far more likely to report that their customers had no interest in green products and services. This partially explains why these business leaders were more likely to agree that they are too busy running their business to think about adding green products and services.

COMPETITIVE ADVANTAGE

Deep green businesses were significantly more likely to report a competitive advantage from their green offerings than their lighter green peers.

Industries with more established green market segments report this trend in a more pronounced way, especially organic food, green building, and renewable energy. Deep green businesses were also more likely than their mid- and light-green counterparts to agree that they know where and how to market their green products and services. They were also more likely to know how to “green” their existing products or services. This knowledge may have given the deep green businesses an edge over other businesses in their industry.

Lighter green businesses, on the other hand, were far more likely to state that green products and services were not even relevant to their industries.

Sharon Rowe of Eco-Bags built her business around bags–tote bags, lunch bags, produce bags and, of course, her popular ECOBAGS®.

As the popularity of her bags grew, so did her customer list and website traffic. To support her customers’s interest in “leaving no trace” through reusable solutions, she now offers other company’s sustainable solutions through her direct sales channels.

By selling other trusted sustainable brands, like To-Go Ware, Built, and ChicoBag, Sharon can expand sales while maintaining the trust that Eco-Bags enjoys with its committed green customers.

Marty Metro of UsedCardboardBoxes.com has competitive advantages on both sides of his business. He buys quality used cardboard boxes from large companies that had previously recycled them as scrap. He then sells those boxes, wholesale and retail, to consumers and businesses that need them.

Here’s the twist: Marty pays his suppliers more than they get from a recycler but he also sells the boxes to his customers for less than retail.

The result? Everyone involved gets a better financial return and a better environmental bottom line too.
REVENUE GROWTH

Deep green businesses were far more likely to report strong revenue growth through the recession from their green products and services than their light green counterparts.

Although their profit margins were similar to their less-green peers (see page 16), and many green businesses closed their doors during the recession, many of the deeper green businesses reported that they were able to build revenues through the recession due to growing consumer demand.

In particular, our interviews indicated that the deep green businesses benefited from relatively low customer attrition through the downturn. They were also able to leverage their insight into reliable methods and channels for reaching new green customers to offset turnover and negative effects of the recession.

Michael Girkout, president of Alvarado Street Bakery, and his 116 co-owners have been baking and selling organic, whole grain baked goods for over 30 years.

The cooperatively owned business sticks fiercely to its environmental stewardship values: Their baking operation includes a catalytic oxidizer that reduces emissions by 99%, 1,700 solar panels, and 100% recycling.

Michael’s main advice to other green businesses: “Stay true to your mission. Don’t waver, don’t acquiesce, and push through when encountering resistance.”

And that isn’t just talk from a business that’s posted 2-4% growth throughout the recent down economy.

PREMIUM PRICES

Deep green businesses were significantly more likely then their less-green peers to report that their customers are willing to pay more for green products and services.

Over the last decade, while numerous studies indicated consumers’ willingness to pay a premium for greener products and services, the reality was that most consumers didn’t walk their talk when it comes to green. In fact, a 2012 Green Gauge study by research firm GfK found that some consumers may have even grown actively resistant to paying premium prices for green products and services.

Our study indicates a critical exception to that trend. In both our survey data and our interviews, green business owners reported that, where a high trust relationship develops between a conscious consumer and an authentically green business, those consumers are willing to pay a premium for true green.

For nearly three decades, Roger Telschow’s EcoPrint has set the standard for sustainable printing. From its specially formulated Eco-ink® inks that are free of heavy metals to becoming the first carbon neutral printer in the U.S., EcoPrint is leading the transformation of the printing industry.

EcoPrint’s specialized formulations, strong labor practices, and cutting-edge papers come at a higher cost, but offer rewards too. EcoPrint has developed a portfolio of committed customers who readily pay for a product that’s both high quality and deeply sustainable. Many customers even feature information about the special inks and papers in their materials, promoting both EcoPrint and their own good practices.
CUSTOMER LOYALTY

Deep green businesses in our study were far more likely than their lighter green counterparts to agree that their existing customers continue to support them because of their green attributes.

Although more research will provide better insight into this “Green Stickiness” factor, certain studies have already indicated that green consumers and investors tend to stick with green brands. A 2009 study of 6,500 consumers by Deloitte and the Grocery Manufacturers Association found that, once a more sustainable product has captured the shopper’s commitment, it tends to retain the shopper’s loyalty through repurchase, much more so than non-green products.

Another study found that investment fund managers who had divested from companies doing business in apartheid South Africa had continued to adopt additional human rights and environmental screens to their portfolios, even after the end of apartheid.

Even though demand for deep green is growing, deep green businesses still risked being ahead of demand when selling to mainstream markets.

A cautionary note emerged through our interviews with green business leaders: Certain green business owners, deeply motivated by strong social and/or environmental ideals, appeared to be ahead of demand for their deeply ethical products and services.

The successful green businesses we interviewed indicated that leveraging relationships with deep green consumers, who are heavily motivated by concern for the common good, is key to getting established, but what works for green consumers doesn’t necessarily appeal to more mainstream customers.

Among the barriers to more mainstream adoption we observed: solutions that are more complex or wholistic, require significant behavioral change, or rely on highly political language.

Business: Native American Nat. Foods
Industry: Food Products

Karlene Hunter co-founded this natural snack food company with partner Mark Tilsen to provide employment for residents of the Oglala Lakotas on the Pine Ridge Reservation in South Dakota.

Within its first five years of operations, annual sales of their unique cranberry-bison jerky grew from zero to $1.5 million, with distribution to over 4,500 stores nationwide.

Customers are drawn to the simple, natural and healthful ingredients—and by the company’s mission. As one online reviewer wrote, “I love that it’s an American product, supports Native American entrepreneurs and comes from grass fed buffalo (not feed lot confined and fed). I’ll definitely be ordering again.”

AHEAD OF MARKETS

Even though demand for deep green is growing, deep green businesses still risked being ahead of demand when selling to mainstream markets.

A cautionary note emerged through our interviews with green business leaders: Certain green business owners, deeply motivated by strong social and/or environmental ideals, appeared to be ahead of demand for their deeply ethical products and services.

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Business: Home Energy Company
Industry: Home Services

One of the small business owners we interviewed was frustrated with her customers’ lack of adoption of a wholistic home energy assessment solution. According to her, the solution would help the homeowners make optimal choices about how to improve the efficiency of their homes.

However, her customers were clearly looking for simpler, more accessible actions to take and were resistant to the cost and time involved in the comprehensive assessment.

The business owner was able to reach deep green consumers with the comprehensive assessment, but had to create “entry-level,” incremental service options for less-green customers.
MEGA-TRENDS
THE GREEN ECONOMY IS GROWING UP

The growth in green segment market share across the economy is unprecedented and systematic.

From organics to fair trade to clean energy, it’s clear that we’re hitting the tipping points where sustainable products and services have moved from fringe alternatives to industry norms.

REACHING THE TIPPING POINT

Scientists at Rensselaer Polytechnic Institute have demonstrated that “when just 10% of a population holds an unshakable belief, their belief will always be adopted by the majority of the society.”

Using computer modeling based on established patterns of social interactions, the scientists, who are members of the Social Cognitive Networks Academic Research Center (SCNARC) at Rensselaer, discovered the tipping point where a minority belief reliably becomes the majority opinion. The finding has implications for a wide range of social innovations, including the belief that social values should drive financial and economic decision-making.

According to SCNARC Director Boleslaw Szymanski, “When the number of committed opinion holders is below 10 percent, there is no visible progress in the spread of ideas.” However, “Once that number grows above 10 percent, the idea spreads like flame.”

According to Denise Hamler, who has led green business development at Green America since its founding in 1983, the green economy appears to be approaching that tipping point.

“Though it’s hard to tell how many Americans strongly believe in the idea of green business, we do know that green segments today are growing far faster than their overall industries,” she says. “When we look at where things were even five or ten years ago, the growth we’re seeing today is off the charts.”

Hamler notes that the massive shift can be seen in our everyday experiences that are so different from 30 years ago.

“You don’t have to even look at the industry trends to see what’s going on out there,” says Hamler. “You now see wind farms, organic goods at every grocery store, solar in your neighborhood, and farmers markets in most communities. All these things that used to be fringe alternatives have become mainstream.”
According to the Intuit 2020 Report, Sustainability will become a “competitive requirement for small business within the next ten years, moving from social novelty to business necessity.”

The report’s lead author, Steve King of Emergent Research, writes that “the return of economic growth will renew pressure on resource supplies and prices, with regulation, taxes and other efforts to reduce carbon footprints adding to these pressures.”

Based on that analysis, says King, “Sustainability will move from social novelty to business necessity as costs drop and demands grow from a wide range of stakeholders, including customers, employees and government.”

The report, which explores the major trends that will affect small businesses over the next decade, observes that the trend has major implications for businesses large and small, including that:

• Businesses will have to plan strategically for price increases, volatility, and shortages of resources.
• Resource productivity (output per unit of resource input) in the production and delivery of goods and services “will become a central driver of competitiveness in many industries.”
• Consumers and business customers will increasingly demand sustainable business practices, products and services.

“As more and more brands become sustainable, they lose the ability to use that for differentiation. In fact, some recent studies seem to indicate that as the number of sustainable brands in a category increases, brands that are not sustainable are penalized more than the sustainable brands benefit. But there is a silver lining here. Most categories have not yet reached this stage. For brands that are willing to be daring, now is the time to gain the sustainable advantage—before it evaporates in their category.”

– Russ Meyers, Chief Strategy Officer, Landor Associates

Green America was founded in 1983 to “change the way America does business.”

1983-2013

At that time, green segments were considered marginal alternatives. The development of these green segments reflects the growth and differentiation of the green economy.
The green segments of industries across the economy are growing rapidly, and systematically taking market share from the conventional economy.

<table>
<thead>
<tr>
<th>Year</th>
<th>ORGANIC FOOD (U.S. sales in billions)</th>
<th>ORGANIC NON-FOOD (U.S. sales in billions)†</th>
<th>GREEN BUILDING (non-residential green starts, in billions)</th>
<th>SOCIALLY RESPONSIBLE INVESTING (U.S. assets under management, in trillions)</th>
<th>RENEWABLE ENERGY (U.S. consumption, excluding hydro and nuclear, in quadrillion Btu’s)</th>
<th>HYBRID VEHICLE SALES (U.S. unit sales in hundreds of thousands)</th>
<th>FAIR TRADE FOOD (U.S. sales in millions of pounds)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>$7.4</td>
<td>0.4</td>
<td>$3</td>
<td>$2.3</td>
<td>553</td>
<td>20</td>
<td>9.8</td>
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<td>2002</td>
<td>$8.6</td>
<td>0.4</td>
<td>$25</td>
<td>$2.2</td>
<td>648</td>
<td>36</td>
<td>19.5</td>
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<td>2003</td>
<td>$10.4</td>
<td>0.6</td>
<td>$47</td>
<td>$2.3</td>
<td>754</td>
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<td>2004</td>
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<td>$54</td>
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<td>2005</td>
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<td>$25</td>
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<td>1,234</td>
<td>253</td>
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<td>1.6</td>
<td>$25</td>
<td>$2.7</td>
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<td>352</td>
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<td>2008</td>
<td>$23.6</td>
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<td>$25</td>
<td>$3.1</td>
<td>2,214</td>
<td>312</td>
<td>112.4</td>
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<tr>
<td>2009</td>
<td>$24.8</td>
<td>2.0</td>
<td>$25</td>
<td>$3.1</td>
<td>2,603</td>
<td>290</td>
<td>111.4</td>
</tr>
<tr>
<td>2010</td>
<td>$26.7</td>
<td>2.0</td>
<td>$25</td>
<td>$3.1</td>
<td>3,141</td>
<td>274</td>
<td>151.9</td>
</tr>
<tr>
<td>2011</td>
<td>$29.2</td>
<td>2.2</td>
<td>$25</td>
<td>$3.1</td>
<td>3,600</td>
<td>269</td>
<td>$</td>
</tr>
</tbody>
</table>

Organic Food as percentage of total U.S. food sales:
1.4% 1.6% 1.9% 2.2% 2.5% 2.9% 3.2% 3.6% 3.7% 4.0% 4.2%

Organic Non-Food as percentage of total U.S. non-food sales (corresponding categories only):
0.1% 0.2% 0.2% 0.3% 0.3% 0.4% 0.5% 0.5% 0.6%

Green Buildings as percentage of total U.S. new construction starts:
1.74% 11.79% 30.72% 38.03%

Socially Responsible Investing percentage of total U.S. assets under management:
11.7% 11.3% 9.4% 10.8% 12.2%

Renewable energy as percentage of total U.S. energy consumption:
.58% .66% .77% .87% .98% 1.24% 1.56% 2.23% 2.76% 3.21% 3.67%

Hybrid vehicle sales as percentage of total U.S. auto sales:
0.1% 0.2% 0.3% 0.6% 1.3% 1.4% 1.8% 2.4% 2.4% 2.1%

Fair Trade Food as percentage of total U.S. food sales in pounds:
0.04% 0.07% 0.10% 0.13% 0.19% 0.22% 0.29% 0.34% 0.32% 0.41%

* Comparison includes only coffee, tea, and cocoa. See page 31 for details
† Includes fibers, personal care, pet food, household products, flowers, supplements
The organic food segment has consistently gained market share over a 10-year period. Over a 10-year period, the organic food segment grew 238% from $8.6 billion to $29 billion, while the overall food market grew 33%.

Organic food segment has consistently gained market share over a 10-year period. 

<table>
<thead>
<tr>
<th>Year</th>
<th>Organic Food Segment</th>
<th>Overall Food Market</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>1.6%</td>
<td>4.0%</td>
</tr>
<tr>
<td>2003</td>
<td>1.9%</td>
<td>4.2%</td>
</tr>
<tr>
<td>2004</td>
<td>2.2%</td>
<td>4.4%</td>
</tr>
<tr>
<td>2005</td>
<td>2.5%</td>
<td>4.6%</td>
</tr>
<tr>
<td>2006</td>
<td>2.9%</td>
<td>4.8%</td>
</tr>
<tr>
<td>2007</td>
<td>3.2%</td>
<td>5.0%</td>
</tr>
<tr>
<td>2008</td>
<td>3.6%</td>
<td>5.2%</td>
</tr>
<tr>
<td>2009</td>
<td>3.7%</td>
<td>5.3%</td>
</tr>
<tr>
<td>2010</td>
<td>4.0%</td>
<td>5.5%</td>
</tr>
<tr>
<td>2011</td>
<td>4.2%</td>
<td>5.7%</td>
</tr>
</tbody>
</table>

Small Business Opportunities
- Organic food production, sales and distribution, including:
  - Home delivery
  - Restaurants
  - Community-Supported Agriculture (CSA’s)
  - Organic foods wholesale and retail, including farmer’s/local markets
  - Institutional purchasing
  - “Add-value” food production, including packaged foods

Projected Sales Growth
- **$42** billion in **2014**† organic food sales in U.S.
- **$78** billion in **2015**‡ organic food sales in U.S.

Outlook
Market share growth continues to be steady for organic foods and several trends will contribute to continued segment expansion:
- Increasing consumer concerned over Genetically Modified ingredients—and possible labeling of GMO’s
- Increasing organic-certified production capacity

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* 2012 U.S. Organic Industry Survey Overview, Organic Trade Association
† Forecasts for U.S. Organic Food Sales, 2010-2014, Western Washington University, Center for Economic Vitality
2.2 billion
2011 U.S. Organic Non-Food Revenues*

Over a 9-year period, the organic non-food segment grew 400% from $439 million to $2.2 billion, while the equivalent overall non-food market grew 33%.

Growth of Organic Non-Food Segment, 2003-2011

While small, the organic non-food segment has consistently gained market share over a 9-year period.

Market Share of Organic Non-Food Segment, 2003-2011*

Small Business Opportunities

- Production, importation, preparation and delivery of organic products.
- Importing, growing, processing and distributing organic and sustainable raw materials, including bamboo and organic cotton.
- Crafting or manufacturing of household items from organic materials.
- Organic alternatives in popular categories, including floral, pet snacks, clothing.

Outlook

- While the “natural segment” is not the same as certified organic, overall growth in the (non-food) natural products industry worldwide is expected to average double-digit annual growth through 2016†.
- In 2011, four in ten families indicate they are buying more organic products than they were in 2010††.
- While still showing strong growth through the recession, the likely expanded purchasing by large brands of sustainable textiles will return this segment to 2008 growth rates of 30+ percent annually‡.
- The possible legalization of hemp for fiber production in the U.S. could create instant demand for this fast-growing fiber.

Sources:
- 2012 U.S. Organic Industry Survey Overview, Organic Trade Association
- † Natural Personal Care 2011: Regional Market Analysis and Competitive Brand Assessment, Kline Group, Inc.
- †† 2010 Global Market Report on Sustainable Textiles, Textile Exchange
- ‡ 2011 U.S. Families’ Organic Attitudes and Beliefs Study, Organic Trade Association
GREEN BUILDING

CURRENT MARKET

$54 billion

2011 U.S. Green Building Revenues

38%

2011 Green Building Share of Market

Description

Green building includes new commercial and residential construction starts, retrofits, and renovations that specify LEED certification, and products and materials certified by Energy Star, Green Seal, Forest Stewardship Council (FSC), Formaldehyde-Free Insulation, and GreenGuard. Residential projects subject to state and local green building requirements might not be fully counted here.

Growth of Green Building Segment, 2005-2011

The green building segment grew to $54 billion in 2011 from just $3 billion in 2005†, while the overall construction market contracted 17%†.

Market Share of Green Building Segment, 2005-2011†

The green building segment gained massive market share over a 6-year period†.

Small Business Opportunities

- Resource-efficient design, construction, including subcontracting
- Green roof design and installation
- Solar PV system design, selection and installation
- Specialized green plumbing, including water efficient system design, waterless urinals
- Energy-efficient lighting design, selection and installation

Projected Sales Growth

- $100+ billion in 2013* green building segment size
- $200+ billion in 2016* green building segment size

Outlook

- Health-related practices are the fastest-growing specifications in green building
- One third of U.S. home builders expect to be fully dedicated to building green by 2016
- 29-38% of new homes will be green by 2016, possibly driving increased demand for green furnishings and other green lifestyle products and services

† McGraw-Hill Construction Green Outlook 2012
* McGraw-Hill Construction’s 2013 Dodge Construction Green Outlook

The Big Green Opportunity
Socially Responsible Investing (SRI) incorporates social and environmental investment policies into investment analysis and portfolio construction, advocates for responsible corporate policies and practices through shareholder advocacy, and invests in high-impact community investment. SRI practitioners include asset managers, investment advisors and both individual and institutional asset owners.

**Description**

- Values-based, “impact,” socially responsible, or green financial planning services
- Increased availability of ready capital as “crowd-sourced funding” comes online after JOBS Act legislation
- Continued redirection of capital to green segments, particularly organics, green building, and renewable energy, with growth of SRI

**Projected Asset Growth**

- 15% growth by 2015†
- Socially Responsible Investing as percent of global assets under management

**Outlook**

- According to Robeco and Booz & Company, “SRI will become mainstream within asset management by 2015”‡
- Data on companies’ environmental, social and governance practices is already available on Bloomberg investor terminals worldwide

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3.6 quadrillion Btu’s
2011 Renewable Energy Consumption*

3.7%
2011 Renewable Energy Share of Market*

Description
For the purposes of this report, renewable energy includes energy produced from Solar photovoltaic, Biofuels, Geothermal and Wind sources, but not hydroelectric or nuclear. For comparison, non-renewable fuels in this report include oil, natural gas and coal.

Growth of Renewable Energy Segments, 2002-2011*
Over a 10-year period, consumption of renewable energy grew 456% from 0.8 quadrillion to 3.6 quadrillion, while consumption of non-renewable fuels fell 3.2%.

Market Share of Renewable Energy Segment, 2002-2011*
The renewable energy segment has consistently gained share of consumption over a 10-year period.

Small Business Opportunities
Component design and production; systems design; sales, referrals, installation and maintenance of residential and commercial:
- Solar photovoltaic systems
- Geothermal units
- Wind turbines
- Biofuel engines, fuel production and distribution, and vehicle maintenance

Projected Consumption Growth
23% growth by 2022* in consumption of Renewable Energy in U.S.
3% growth by 2022* in consumption of Non-renewable Energy

Outlook
Renewable energy installations are more often distributed and local, often appearing on residential and commercial building projects, so continued growth will create more opportunities for small businesses in design, delivery and maintenance of renewable installations.

**HYBRID VEHICLES**

**CURRENT MARKET**

269,000

2011 Hybrid Vehicle Sales‡

2.1%

2011 Hybrid Vehicle Share of Market†‡

**Description**

While this segment includes only vehicles technically designated as gas-electric hybrids for the purpose of measurement, the “green car” segment is much larger than just hybrids. It includes all-electric vehicles, alternative fuel vehicles such as hydrogen cars, and vehicles employing renewable-based and recyclable components.

**Growth in Hybrid Vehicle Sales, 2002-2011**

Unit sales of hybrid vehicles grew 646% from 36,000 to 269,000 over a 10-year period, while sales of vehicles overall dropped by 15%.

**Hybrid Sales Impacted by Economic Downturn**

Despite growth of green segments in other industries, the relatively high cost of hybrids stunted the prior trend of significant growth in market share for hybrids.

**Small Business Opportunities**

- Production of specialized renewable raw materials used in components
- Design and supply of green vehicle components
- Green vehicle accessories
- Improvements in transportation efficiency and lower cost of delivery and distribution

**Projected Sales Growth**

1.6+ million in 2020

unit sales of Hybrid Electric Vehicles in U.S.*

0.4 million in 2020

unit sales of Plug-in Electric Vehicles in U.S.*

**Outlook**

By the year 2020,

- Plug-in Electric Vehicles will see 400,000 annual sales*
- Hybrid Vehicles will see 1.6 million annual sales*
- Total sales of battery-powered vehicles will reach around 3.4 million out of the 103 million global light duty vehicle sales expected in 2020*

The growth of market share for Fair Trade Foods in all categories is reflected in the growth seen here for coffee, tea and cocoa.

Small Business Opportunities

- Importing of fair trade certified products
- Differentiating products in crowded categories by delivering fair trade alternatives
- Selling Fair Trade products / expanding retail offerings to include Fair Trade
- Producing added-value goods using Fair Trade products and ingredients

Commentary

- A 2011 study by researchers from MIT, Harvard and the London School of Economics found that sales of the two most popular bulk coffees sold in a major U.S. grocery store chain rose by almost 10% when the coffees were labeled as Fair Trade, and sales of Fair Trade labeled coffee remained steady when its price was raised by 8%.
- In the UK, which has been a reliable predictor of ethical consumption trends in the U.S., there were 500 Fairtrade Towns, 118 Fairtrade universities, 6,000 Fairtrade churches, and over 4,000 UK schools registered in the Fairtrade Schools Scheme, as of 2011. (http://orgprints.org/19527/1/Paull2011FairtradeISOFAR.pdf)
GREEN MOVEMENT

THE ORGANIZATIONS THAT ARE GROWING GREEN

Since 2001, we’ve seen an explosion in the number of green industry trade associations, certifications and other green intermediaries.

GREEN TRADE ASSOCIATIONS

Green Trade Associations from 1936-1999
- 1936 Natural Products Association
- 1954 American Solar Energy Society
- 1967 Electric Auto Association
- 1972 Geothermal Energy Association
- 1974 American Wind Energy Association
- 1974 Solar Energy Industries Association
- 1980 Sustainable Building Industries Council
- 1982 The Energy & Environmental Building Alliance
- 1985 Organic Trade Association
- 1986 Opportunity Finance Network
- 1990 Sustainable Building Industries Council
- 1992 Solar Electric Power Association
- 1990 US Green Building Council
- 1993 Green Hotels Association
- 1994 Fair Trade Federation
- 1999 Biomass Power Association

New Green Trade Associations since 2001:
- 2001 Environmental Paper Network
- 2001 Green Press Initiative
- 2002 EcoBrokers
- 2004 Sustainable Packaging Coalition
- 2005 Green Burial Council
- 2006 Green Cleaning Network
- 2006 Sustainable Furnishings Council
- 2007 Green Café Network
- 2007 Green Spa Network
- 2008 Eco Dentistry Association
- 2008 Green Cleaners Council
- 2008 Greener Photography
- 2008 Sustainable Food Trade Association
- 2010 Green Parking Council
- 2010 Green Menu
- 2010 Distributed Wind Energy Association
- 2011 National Clearinghouse for Professional Wet Cleaners

Green Trade Association Snapshot:

Eco-Dentistry Association

The Eco-Dentistry Association (EDA) launched in 2008 as an international membership association of green dental professionals transforming the way dentistry is practiced.

Like the other green trade associations listed here, the EDA provides its members with a number of association-style benefits, all with a green market focus. EDA’s benefits include a listing in their green dentistry directory at www.ecodentistry.org, access to the latest research on green trends and dentistry-specific initiatives, and their Green-DOC™ dental practice certification program.

Market education and outreach is also a key function of the EDA, which offers online consumer advice on green living and wellness, using the lens of oral health.

Co-Founder Ina Pockrass said that although their first few years were slow-going, their social media presence accelerated rapidly in the past year, driving rapid membership growth. EDA now has over 61,000 Facebook followers (more than any other dental organization) and over 800 members.
Growing Green Certifications
A full two-thirds of the current green certifications were launched since 2001.

1940 Demeter Biodynamic®
1973 California Certified Organic Farmers - CCOF
1979 Certified Environmental Professional
1982 Oregon Tilth
1982 Green America (Formerly Co-op America)
1985 Vermont Organic Certified
1986 NutriClean
1987 SmartWood - Non Timber Forest Products Certification
1987 SmartWood - Chain of Custody Certification
1987 Smart Wood - Rediscovered Wood Certification
1987 SmartWood - Forest Management
1988 Texas Certified Organically Produced
1989 Green Seal
1989 Stemilt Responsible Choice
1989 QCS Organic
1990 NMOCC Certified Organic
1990 Dolphin Safe / Dolphin Friendly
1990 Corporate Lands for Learning
1990 Rhode Island Certified Organic
1990 Audubon International
1990 Certified Green Restaurant®
1990 SCS Recycled Content
1990 Elemental Chlorine Free
1990 Wildlife at Work
1991 Healthy Child Healthy World
1991 Eco-OK Sustainable Agriculture Network
1992 CRI Green Label
1992 Rainforest Alliance Certified
1992 ENERGY STAR: USA
1993 Forest Stewardship Council (FSC)
1993 LEED Professional Credentials
1993 LEED Project Certification
1993 SCS Sustainable Choice
1993 SCS Certified Biodegradable
1994 GoodWeave
1995 Envirosports
1995 Farm Verified Organic
1996 Processed Chlorine Free
1996 Bay Area Green Business
1996 Environmental Stewardship Program (ESP)
1997 Salmon-Safe
1997 Design for the Environment (DFE)
1997 Green-e Energy
1997 SA8000
1998 IPM
1998 Leaping Bunny
1998 Bird Friendly Coffee
1998 Certified Vegan
1998 Green Advantage Certification
1999 LIVE (Low Input Viticulture and Enology)
1999 Green Globe Certification
1999 Compostable: Biodegradable Products Institute Label
1999 CHPS - Collaborative for High Performance Schools
1999 WRAP Certification
2000 LEED Green Building Rating Systems
2000 US Composting Council Seal of Testing Assurance
2000 Cleaner and Greener Certification
2001 Sustainable Agricultural Network
2001 Protected Harvest
2001 Marine Aquarium Council (MAC) Certification
2001 GREENGUARD
2001 Totally Chlorine Free
2001 Sustainable Forestry Initiative (SFI)
2001 Greenlist - SC Johnson
2002 Green Flag Program
2002 SMaRT Consensus Sustainable Product Standards
2002 USDA Organic
2002 Certified Naturally Grown
2002 CertiPUR-US
2002 FishWise
2002 Best Aquaculture Practices
2002 International Ecotourism Standard
2003 EcoBroker
2003 e-Stewards Certification
2003 Certified Humane Raised and Handled
2003 IPM Star
2004 Green-e Marketplace
2004 OE-100
2004 SCS FloorScore®
2004 C.A.F.E. Practices
2004 Safe Quality Food (SQF)
2004 EPA SmartWay
2004 Green Globes
2004 (8)0 PLUS
2004 Environmentally Preferred Rating (EPR)
2005 Cradle to Cradle Certified
2005 Earth Advantage
2005 Indoor Advantage
2005 Seafood Safe
2005 NSF/ANSI 140 Sustainability Assessment for Carpet
2005 Green Shield Certified
2005 VeriFlora
2005 SCS Indoor Advantage Gold
2006 EPEAT
2006 Earthsure
2006 WaterSense
2006 Animal Welfare Approved
2006 Cleaning Industry Management Standard (CIMS)
2006 Greenstar Certified
2007 Certified Green Dealer
2007 Burn Wise EPA

Source: Ecolabel Index (www.ecolabelindex.com), January 24, 2013
For its 2011 “Business as UNusual” review of green graduate programs Net Impact found 106 programs with a green focus, nearly 3 times the number they found in 2006. Driven by research from Net Impact’s network of 2,500 student members, the report is the nation’s most comprehensive look at the greening of business schools. The report includes any MBA program that includes offerings in sustainability, corporate social responsibility and/or social entrepreneurship. It does not count similar programs within non-business schools.

2007 Whole Trade™ Guarantee (continued on page 34)
2007 Certified Wildlife Friendly®
2007 Certified Fair Labor Practices
2007 Sustainable Tourism Education Program (STEP)
2007 Voluntary Carbon Standard
2007 Non-GMO
2007 Green Ink
2007 Fair Labor Practices and Community Benefits
2007 Green Certified Site
2007 UL Environment
2007 CarbonFree® Certified
2007 SCS Indoor Advantage
2007 Future Friendly - Proctor and Gamble
2007 Timberland Green Index
2007 Sustainable Business Achievement Ratings (S-BAR)
2007 Environmentally Preferable Product (EPP) Downstream
2007 OE Blended
2007 Climate Cool
2008 Green-e Climate
2008 TRA Certification – Green Recreational Vehicles (RVs)
2008 Sustainable Green Printing Partnership (SGP)
2008 EPA Lead-Safe Certification
2008 EarthRight Business Certification
2008 Better Environmental Sustainability Targets (BEST) Standard 1001
2008 NPA Natural Seal (Personal Care and Home Care)
2008 Green Business Bureau
2008 Carbon Neutral Certification
2008 Eco-Living seal
2008 TRA Certification – Green Modular and Manufactured Homes
2008 UL Environmental Claim Validation
2008 Degree of Green®
2008 NAHB Green
2008 GreenSure - Sherwin Williams
2008 Global Recycle Standard
2008 Climate Registered
2009 UPS Carbon Neutral
2009 Green Good Housekeeping Seal
2009 Oregon Certified Sustainable Wine
2009 Green C
2009 Level
2009 Worldstock
2009 NAHB Certified Green Professional
2009 Sierra Club Green Home GreenCheck
2009 Indoor airPLUS
2010 NSF/ANSI 332 Sustainability Assessment for Resilient Floor Coverings
2010 USDA Certified BioBased
2010 NSF/ANSI 336: Sustainability Assessment for Commercial Furnishings Fabric
2010 UPS Eco Responsible Packaging Program
2010 Eco3Home
2010 NSF Sustainability Certified Product
2010 NSF/ANSI 342 Sustainability Assessment for Wallcovering Products
2010 American Grassfed
2010 FedEx EarthSmart Solutions
2010 STARS
2010 ICMA EcoLabel Standard Program
2010 GreenCircle
2010 UL Energy Efficiency Verified
2010 R2/RIOS Certified Electronics Recycler
2011 Sourcemap

Growing Green Business Leaders
Rapid rise of “Green MBA” programs preps social entrepreneurs for new economy.
GREEN ACTIONS
ENVIRONMENTALLY-
BENEFICIAL SAVINGS

What are the best bets for going green and saving money?
We asked 1,300 small business owners to share their experiences.

**PERCENT OF RESPONDENTS WHO TOOK EACH ACTION**

<table>
<thead>
<tr>
<th>Action</th>
<th>Percent of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce paper use (e.g. double-sided printing)</td>
<td>69%</td>
</tr>
<tr>
<td>Recycle and/or reuse in-house plastics, paper, metals, glass, and/or organics</td>
<td>60%</td>
</tr>
<tr>
<td>Install more efficient lighting</td>
<td>50%</td>
</tr>
<tr>
<td>Purchase energy efficient equipment</td>
<td>48%</td>
</tr>
<tr>
<td>Shift from paper to electronic communication and filing</td>
<td>48%</td>
</tr>
<tr>
<td>Purchase in bulk</td>
<td>46%</td>
</tr>
<tr>
<td>Enable energy-saving settings on computers</td>
<td>45%</td>
</tr>
<tr>
<td>Train staff to conserve energy</td>
<td>41%</td>
</tr>
<tr>
<td>Arrange for recycling picked up by hauler</td>
<td>40%</td>
</tr>
<tr>
<td>Train staff to conserve water</td>
<td>35%</td>
</tr>
<tr>
<td>Purchase green products for use in operations</td>
<td>35%</td>
</tr>
<tr>
<td>Donate food and/or equipment to charities</td>
<td>32%</td>
</tr>
<tr>
<td>Increase purchasing of products in a local vicinity</td>
<td>32%</td>
</tr>
<tr>
<td>Switch to reusable food containers</td>
<td>31%</td>
</tr>
<tr>
<td>Install programmable thermostats</td>
<td>31%</td>
</tr>
<tr>
<td>Inventory management to decrease waste</td>
<td>28%</td>
</tr>
<tr>
<td>Decrease packaging on products</td>
<td>27%</td>
</tr>
<tr>
<td>Take back and recycle used products from customers (printer cartridges for example)</td>
<td>27%</td>
</tr>
<tr>
<td>Install low-flow toilets</td>
<td>27%</td>
</tr>
<tr>
<td>Reduce business travel with webinars and tele-meetings</td>
<td>27%</td>
</tr>
<tr>
<td>Install low-flow showerheads and faucet aerators</td>
<td>23%</td>
</tr>
<tr>
<td>Set up on-site composting of organic/food waste material</td>
<td>23%</td>
</tr>
<tr>
<td>Purchase green products as input materials</td>
<td>21%</td>
</tr>
<tr>
<td>Insulate our facility</td>
<td>21%</td>
</tr>
<tr>
<td>Install energy efficient windows</td>
<td>19%</td>
</tr>
<tr>
<td>Offer telecommuting options for employees</td>
<td>16%</td>
</tr>
<tr>
<td>Use rain water barrel and/or collection system</td>
<td>15%</td>
</tr>
<tr>
<td>Redesign transportation routes</td>
<td>15%</td>
</tr>
<tr>
<td>Implement lighting upgrades (e.g. motion sensors)</td>
<td>14%</td>
</tr>
<tr>
<td>Organize employee carpools</td>
<td>13%</td>
</tr>
<tr>
<td>Resell waste and recyclable material directly to a buyer</td>
<td>12%</td>
</tr>
<tr>
<td>Follow a local procurement policy of 200 mile radius or less</td>
<td>12%</td>
</tr>
<tr>
<td>Purchase renewable energy (through a green energy market)</td>
<td>11%</td>
</tr>
<tr>
<td>Use hybrid and/or electric vehicles</td>
<td>11%</td>
</tr>
<tr>
<td>Institute e-waste recycling and disposal program</td>
<td>10%</td>
</tr>
<tr>
<td>Redesign product to require less energy in production</td>
<td>10%</td>
</tr>
<tr>
<td>Minimize transportation through product redesign</td>
<td>8%</td>
</tr>
<tr>
<td>Redesign product to decrease waste outputs</td>
<td>8%</td>
</tr>
<tr>
<td>Create employee incentives for reducing energy use</td>
<td>8%</td>
</tr>
<tr>
<td>Purchase carbon offsets</td>
<td>8%</td>
</tr>
<tr>
<td>Move to a more energy efficient office/facility</td>
<td>8%</td>
</tr>
<tr>
<td>Include environmental performance standards in your service agreements with vendors</td>
<td>8%</td>
</tr>
<tr>
<td>Implement/use tankless water heater</td>
<td>7%</td>
</tr>
<tr>
<td>Implement a power management program</td>
<td>6%</td>
</tr>
<tr>
<td>Subsidize employee use of public transportation</td>
<td>6%</td>
</tr>
<tr>
<td>Install Solar photovoltaic (electric) panels</td>
<td>6%</td>
</tr>
<tr>
<td>Utilize Biofuel heating oil (including wood, pellet or corn stoves)</td>
<td>6%</td>
</tr>
<tr>
<td>Arrange for organic/food waste material collection by hauler service</td>
<td>5%</td>
</tr>
<tr>
<td>Install automatic faucets</td>
<td>5%</td>
</tr>
<tr>
<td>Install Solar hot water heating</td>
<td>5%</td>
</tr>
<tr>
<td>Redesign product to require less water in manufacturing and distribution</td>
<td>4%</td>
</tr>
<tr>
<td>Use biodiesel and/or waste vegetable oil vehicles</td>
<td>4%</td>
</tr>
<tr>
<td>Paint roof white</td>
<td>4%</td>
</tr>
<tr>
<td>Install waste heat recovery unit</td>
<td>3%</td>
</tr>
<tr>
<td>Install waste water reclamation system</td>
<td>3%</td>
</tr>
<tr>
<td>Install a green roof (e.g. sod)</td>
<td>2%</td>
</tr>
<tr>
<td>Install Wind turbine</td>
<td>2%</td>
</tr>
<tr>
<td>Install composting toilets</td>
<td>2%</td>
</tr>
<tr>
<td>Install Geothermal</td>
<td>2%</td>
</tr>
<tr>
<td>Install Fuel cells</td>
<td>1%</td>
</tr>
</tbody>
</table>

The Big Green Opportunity | 35
The Big 10 Savers

Here are the top 10 environmentally beneficial actions with the fastest return on investment, according to small business owners who completed at least 40 of 58 listed actions.

1. Purchase Energy Efficient Equipment
2. Train staff to conserve energy
3. Install more efficient lighting
4. Recycle and/or reuse in-house plastics, paper, metals, glass, and/or organics
5. Redesign product to require less energy in production
6. Create employee incentives for reducing energy use
7. Enable energy-saving settings on computers
8. Increase purchasing of products in a local vicinity
9. Install energy efficient windows
10. Install Solar photovoltaic panels

MOST POPULAR ACTIONS OVERALL

<table>
<thead>
<tr>
<th>Action</th>
<th>Popularity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce paper use (e.g. double-sided printing)</td>
<td>69%</td>
</tr>
<tr>
<td>Recycle and/or reuse in-house plastics, paper, metals, glass, and/or organics</td>
<td>60%</td>
</tr>
<tr>
<td>Install more efficient lighting</td>
<td>50%</td>
</tr>
<tr>
<td>Purchase energy efficient equipment</td>
<td>48%</td>
</tr>
<tr>
<td>Shift from paper to electronic communication/filing</td>
<td>48%</td>
</tr>
<tr>
<td>Purchase in bulk</td>
<td>46%</td>
</tr>
<tr>
<td>Enable energy-saving settings on computers</td>
<td>45%</td>
</tr>
<tr>
<td>Train staff to conserve energy</td>
<td>41%</td>
</tr>
<tr>
<td>Arrange for recycling picked up by hauler</td>
<td>40%</td>
</tr>
<tr>
<td>Train staff to conserve water</td>
<td>35%</td>
</tr>
</tbody>
</table>

...AND ACTION AREAS

<table>
<thead>
<tr>
<th>Action Area</th>
<th>Popularity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Reduction</td>
<td>39.9%</td>
</tr>
<tr>
<td>Energy Efficiency</td>
<td>27.0%</td>
</tr>
<tr>
<td>Transporation Efficiency</td>
<td>12.6%</td>
</tr>
<tr>
<td>Water Conservation</td>
<td>10.4%</td>
</tr>
<tr>
<td>Green Purchasing</td>
<td>7.3%</td>
</tr>
<tr>
<td>Renewable Energy</td>
<td>2.8%</td>
</tr>
</tbody>
</table>

Green Actions
How Did They Fund These Actions?

The table below lists the ten environmental actions with the fastest return on investment, as indicated by small businesses that implemented at least 40 of the 58 actions we listed (see full list on page 35).

Energy efficiency was the clear theme, with these actions accounting for 7 of the top 10 (and we might also count solar electric generation here, as a way to offset energy costs over the long term).

With so many energy efficiency actions in the top 10, utility programs and tax credits were the leading sources of funding, followed by bank loans, then loans from friends or family, and government grants and incentives. Based on our discussions with funding sources, we anticipate a significant increase in traditional lending from traditional financing institutions, especially for these high-ROI activities, as well as newer “savings-financed” loan options from both traditional and non-profit lenders.

<table>
<thead>
<tr>
<th>The Big 10 Savers</th>
<th>Most-used financing sources in order of popularity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Purchase energy efficient equipment</td>
<td>Tax credit</td>
</tr>
<tr>
<td>2. Train staff to conserve energy</td>
<td>Utility program</td>
</tr>
<tr>
<td>3. Install more efficient lighting</td>
<td>Bank loan</td>
</tr>
<tr>
<td>4. Recycle and/or reuse in-house plastics, paper, metals, glass, and/or organics</td>
<td>Tax credit</td>
</tr>
<tr>
<td>5. Redesign product to require less energy in production</td>
<td>Loan from friends and/or family</td>
</tr>
<tr>
<td>6. Create employee incentives for reducing energy use</td>
<td>Financing from the seller</td>
</tr>
<tr>
<td>7. Enable energy-saving settings on computers</td>
<td>Tax credit</td>
</tr>
<tr>
<td>8. Increase purchasing of products in a local vicinity</td>
<td>Utility program</td>
</tr>
<tr>
<td>9. Install energy efficient windows</td>
<td>Bank loan</td>
</tr>
<tr>
<td>10. Install solar photovoltaic (electric) panels</td>
<td>Self-financing (eg company funds)</td>
</tr>
</tbody>
</table>

| BEST BETS FOR UNDER $500 ...AND A “HEADS UP” |

Here are the top 9 actions with the fastest return on investment with an initial investment of less than $500, according to business owners who completed at least 40 actions.

1. Train staff to conserve energy
2. Enable energy-saving settings on computers
3. Install programmable thermostats
4. Train staff to conserve water
5. Reduce paper use (e.g. double-sided printing)
6. Shift from paper to electronic communication and filing
7. Decrease packaging on products
8. Install more efficient lighting
9. Recycle and/or reuse in-house plastics, paper, metals, glass, and/or organics

While our Best Bets require little capital, they may not be your best operational efficiency investments. Compare the lists on this page and you’ll see that the actions with the best ROI profile aren’t necessarily the cheapest to implement.

Unfortunately, our study found a consistent bias among business owners of favoring smaller “transactional” savings (for example, at point of purchase) over more capital-intensive, planned options, even when the pricier actions had strong payback profiles. Because of this, they are missing out on major savings.

The explanation we got was simple: “We don’t like debt,” at least when its being spent on expense reduction. The leaders we interviewed didn’t even want debt that was repaid through efficiency savings.
GREEN ACTIONS

PAYING FOR THE BIG ONES

The 11 environmentally-beneficial actions that required the most capital were:

- Install Geothermal
- Install a green roof (e.g. sod)
- Install Wind turbine
- Use hybrid and/or electric vehicles
- Install Solar photovoltaic (electric) panels
- Install waste heat recovery unit
- Use biodiesel and/or waste vegetable oil vehicles
- Move to a more energy efficient office/facility
- Install energy efficient windows
- Install Fuel cells
- Install waste water reclamation system

The businesses in our survey funded these capital-intensive projects with the following methods, in order:

1. Self-financing (e.g. company funds)
2. Credit card
3. Tax Credits
4. Utility program
5. Loan from a bank/credit union
6. Loan from friends and/or family
7. Grant or incentive from government
8. Financing from the seller
9. Grant or incentive from a non-profit
10. Loan through home mortgage

And they learned about their financing options from:

1. Employee/internal team research
2. Small business development organization
3. Media - TV, Radio, and/or billboard

RENTERS VS. OWNERS?

We had expected business leaders who owned their facilities to be more willing and able to make the big investments in greening their facilities, especially versus their renting counterparts.

We did see some "ownership effect" in our survey: Owners were certainly more likely to insulate their facilities, install energy efficient windows, and install more efficient lighting, but not at a significantly higher rate than renters, which surprised us.

Renters, on the other hand, focused on controlling costs where readily doable and were more likely than owners to train staff to conserve energy, create employee incentives to reduce energy use, and move to a more energy efficiency facility. It wasn’t clear to us why owners would be less likely than renters to induce their employees to save energy.

We also didn’t see the variance we expected between owners and renters in renewable energy. Although owners were slightly more likely to implement renewable energy solutions like solar photovoltaics, wind turbines, and geothermal, the greater tendency was very small.

We saw bigger differences in water efficiency measures, which typically have much longer ROI periods than energy efficiency or even renewables, given current incentives and costs. There, we found that owners were significantly more likely to invest in low-flow toilets, install low-flow showerheads and faucet aerators, and use rain water barrels or other water collection systems.

It’s now against the law in 17 states to dispose of e-waste in the trash, yet only 10% of respondants had instituted an e-waste recycling and disposal program.
Green Actions

DIFFERENT ROI PERIODS

Although not statistically significant, we observed a clear pattern of deep green businesses estimating shorter payback periods than their light green counterparts for the following environmental actions:
- Install programmable thermostats
- Insulate our facility
- Increase purchasing of products in a local vicinity
- Install low-flow showerheads and faucet aerators
- Reduce paper use (e.g., double-sided printing)
- Shift from paper to electronic communication/filing
- Decrease packaging on products
- Install more efficient lighting
- Reduce business travel with webinars/tele-meetings

This could be because:
1. The light green businesses tend to overestimate payback periods.
2. The deep green businesses tend to underestimate payback periods.
3. The deeper green businesses were more likely to be aware of and take advantage of rebates and incentives.

While the answer may well be “All three,” the deep green businesses are likely to be correct because they tended to do more research and had more experience implementing these actions. If this is true, then many conventional small businesses may be underestimating the benefits of green actions.

DEEPER GREEN INVESTING

Deeper green business spent more than their less-green counterparts when implementing the same environmentally beneficial actions. For example, the more green a business, the more capital it required to:
- Adopt bulk purchasing,
- Shift from paper to electronic communication and filing,
- Set up inventory management to minimize waste,
- Train their employees to conserve energy,
- Train their employees to conserve water.

In some cases, deep green businesses would spend 30-40% more capital on these activities than their less-green peers. While the deep green businesses had slightly more employees on average than light green businesses, that didn't account for the difference in investment.

Although we didn’t explore this question in our interviews, based on our experience working with green business leaders, our hypothesis is that the deeper green businesses implemented more thorough solutions than their less-green peers. For example, a deep green business owner will tend to heavily optimize her inventory management system to get the long-term financial and environmental efficiencies. Whether the extra investment pays off is unclear from our study.

The nation’s small businesses spend more than $60 billion a year on energy. Small businesses that invest strategically can cut utility costs 10-30% without sacrificing service, quality, style, or comfort.

These are the top challenges—and our recommendations, for leaders of Green Businesses.

<table>
<thead>
<tr>
<th>CHALLENGE</th>
<th>RECOMMENDATIONS</th>
</tr>
</thead>
</table>
| HIGHER COSTS               | * This is what being green means, so leverage it!  
|                            | * Experiment with ways to tell the story of how your business cares for people and the planet, and use compelling stories to differentiate your business in the market.  
|                            | * Tell your powerful story to help your customers understand the higher prices. How is buying from you making a difference?                      |
| CUSTOMER LOYALTY           | For Green Businesses, customer relationships are paramount. Create strategies to leverage this, including:  
|                            | * Expand sales “laterally,” by supplementing sales of your own products and services with related offerings from other green businesses (e.g. if you sell diapers, cross-sell organic baby clothing).  
|                            | * Engage and reward your customers as “multipliers” who recommend you to friends, gift your products/services to others, or “fan” you  
|                            | * Deepen relationships at every touch point. Seek to add meaning and deeper connection to all interactions with your customers.  
|                            | * Most of all, make products and services that people will cherish. When your product or service is a meaningful part of people’s lives, you’ll have customers for life. |
| LACK OF SUPPORT            | * Connect to at least one support organization—either local or online, and make connections with a few peers.  
|                            | * Find a mentor. Many of our green business owners mentioned that mentors (including mentors from “conventional” business backgrounds), provided them with critical support and advice.  
|                            | * Consider creating a “mutual board,” a small group of like-minded peers, often from different industries, who meet to provide advice and support to one another. |
| UNDERCAPITALIZATION        | * Clarify your “target” business size based on your personal goals.  
|                            | * Cultivate your capital sources early and often—from your banker to family members to potential investors, if you plan to grow.  
|                            | * Chronic struggles can be a sign of undercapitalization. While a lack of business planning or delegation can contribute to chronic overwhelm, consider that your business might simply be underfunded. |
### CHALLENGE RECOMMENDATIONS

#### BUILDING LOCAL MARKETS
Green Businesses in certain geographic areas have the biggest gap between green supply and demand. “People in our town just don’t appreciate what we do.”
- Carefully tune your benefits and features to local conditions.
- Talk with prospective local customers to get insight into how they view your offerings and what they want.
- Extend your reach. Consider expanding your business online.

#### BIG COMPETITION
Consolidation of ownership of Green Businesses over the past 5-10 years and “green extensions” by conventional retailers has created big (not so green) competitors for shelf space and customer mindshare. “We’re competing with X company for shelf space at Whole Foods. We can’t afford this.”
- Create your own distribution channels. Target a niche or community that you can develop a high-trust relationship with and create barriers to entry by larger competitors.
- Go direct to consumer by embracing social media, search engine marketing and peer referrals.
- Partner with a green-focused distributor, such as Honest Green or Frontier Natural Products Co-op.
- Consider a merger or sale. A number of small businesses with strong track records get access to national and international distribution networks when they are acquired by larger firms.

#### ASSIGNING VALUE
Like many small business owners, Green Business owners had difficulty assessing the relative value of various priorities competing for their time, money and mindshare.
- Work to understand your businesses’ “value chain” and value proposition—what activities add the most value to your product and service?
- Remember that each dollar saved is nearly two dollars earned, but you can’t save money that you don’t earn!

#### “AAARGH...FINANCIALS!”
Many Green Business owners need more training on managing the financial aspects of their businesses.
- Get help from traditional technical assistance resources like SCOR advisors or your local Small Business Development Center. You take care of your mission; they help with the business stuff.

#### “ONE MORE QUESTION...”
Green Business owners are the de facto sources of green living advice, which can be time consuming.
- Avoid becoming a green showroom. Your business thrives on sales, not giving free advice. Give advice in the context of understanding and solving customer problems, generating insights into customer needs, and closing sales!

### CHALLENGES VARY BY INDUSTRY
While businesses in certain industries were highly likely to perceive green as relevant to their industry, businesses in other industries considered it largely irrelevant.

<table>
<thead>
<tr>
<th>Top Industries by Agreement</th>
<th>Top Industries by DISAgreement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>“Customers ask for environmentally beneficial products/services.”</strong></td>
<td>Art, entertainment, &amp; recreation Admin, support</td>
</tr>
<tr>
<td>✔ Agriculture &amp; food production Finance &amp; insurance</td>
<td>✗</td>
</tr>
<tr>
<td><strong>“Customers are willing to pay more for environmentally beneficial products/services.”</strong></td>
<td>Waste management &amp; remediation services Transportation &amp; warehousing</td>
</tr>
<tr>
<td>✔ Lodging &amp; accommodation Agriculture &amp; food production</td>
<td>✗</td>
</tr>
<tr>
<td><strong>“Offering environmentally beneficial products or services enables us to reach new customers.”</strong></td>
<td>Admin, support</td>
</tr>
<tr>
<td>✔ Lodging &amp; accommodation Agriculture &amp; food production</td>
<td>Transportation &amp; warehousing</td>
</tr>
</tbody>
</table>
In October, 2012, the Federal Trade Commission issued revised Green Guides describing claims that it considers potentially deceptive.

While the guides aren’t law, or even regulations, violations of the guidelines can result in enforcement action against companies, orders prohibiting their use of certain claims or language, and fines if those orders are later violated.

Over several months in 2009, the FTC demonstrated its concern over green claims when it took enforcement action against four clothing companies over claims that their products were made “from bamboo.” All four companies eventually settled with the FTC over the claims. One of the companies, hit hard with legal expenses from the action, ultimately closed its doors.

Each of the terms in the chart at right is mentioned specifically in the revised Green Guides as potentially deceptive. Any small business using these terms to market its products or services must be prepared to verify those claims upon request, or replace them with more specific and supportable claims.

And there’s no break for small business. The FTC currently applies the same procedures to all cases regardless of business size or impact on the business.

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## Risk by Industry

This table shows the most-used green terms by industry, and indicates those that marketers should either eliminate altogether or qualify to avoid misleading consumers, according to the FTC’s Green Guides.

<table>
<thead>
<tr>
<th>Industry</th>
<th>Most-used terms by industry in order of frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Administration</td>
<td>Recyclable, Paperless, Non-toxic</td>
</tr>
<tr>
<td>Agriculture &amp; food production</td>
<td>Locally produced, Natural, Organic</td>
</tr>
<tr>
<td>Arts, entertainment &amp; recreation</td>
<td>Locally produced, Recycled / recycled content, Environmentally friendly</td>
</tr>
<tr>
<td>Building &amp; construction</td>
<td>Energy-efficient / energy-saving, Green, Environmentally-friendly</td>
</tr>
<tr>
<td>Business &amp; management consulting</td>
<td>Green, Energy-efficient / energy-saving, Environmentally-friendly</td>
</tr>
<tr>
<td>Educational services</td>
<td>Green, Organic, Paperless</td>
</tr>
<tr>
<td>Finance &amp; insurance</td>
<td>Green, Environmentally-friendly, Paperless</td>
</tr>
<tr>
<td>Health care &amp; social assistance</td>
<td>Environmentally-friendly, Natural, Organic</td>
</tr>
<tr>
<td>Information</td>
<td>Environmentally-friendly, Green, Eco</td>
</tr>
<tr>
<td>Lodging &amp; accommodation</td>
<td>Environmentally-friendly, Green, Eco</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Green, Environmentally-friendly, Locally produced</td>
</tr>
<tr>
<td>Non-profit organization</td>
<td>Recyclable, Environmentally-friendly</td>
</tr>
<tr>
<td>Professional &amp; technical services</td>
<td>Environmentally-friendly, Green, Paperless</td>
</tr>
<tr>
<td>Real estate, rental &amp; leasing</td>
<td>Environmentally-friendly, Green, Energy-efficient / energy-saving</td>
</tr>
<tr>
<td>Restaurants &amp; food services</td>
<td>Locally produced, Organic, Natural</td>
</tr>
<tr>
<td>Retail trade</td>
<td>Recycled / recycled content, Environmentally-friendly, Green</td>
</tr>
<tr>
<td>Transportation &amp; warehousing</td>
<td>Green, Environmentally-friendly, Climate friendly</td>
</tr>
<tr>
<td>Waste management &amp; remediation services</td>
<td>Green, Environmentally-friendly, Recycled / Recycled content</td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>Environmentally-friendly, Green, Recycled / Recycled-content</td>
</tr>
</tbody>
</table>

- **Red terms should be avoided in commercial use.** These terms are considered broad, unqualified general claims of environmental benefit, which the FTC considers difficult or impossible to substantiate.

- **Yellow terms should comply with guidelines from the FTC or applicable regulatory body.**
  - Organic claims made for textiles, foods, and other products derived from agricultural products are covered by the U.S. Department of Agriculture’s National Organic Program.
  - Recycled / recycled content claims may be used only for materials that have been recovered or diverted from the waste stream during the manufacturing process or after consumer use. Clearly qualify claims for products or packages made partly from recycled material—for example, “Made from 30% recycled material.”
  - Recyclable claims should be qualified when recycling facilities are not available to at least 60 percent of the consumers or communities where a product is sold. The lower the level of access to appropriate facilities, the more a marketer should emphasize the limited availability of recycling for the product.
  - Climate friendly. Do not misrepresent that a product is ozone-friendly or safe for the climate or atmosphere.
  - Non-toxic. Do not misrepresent, directly or by implication, that a product, package, or service is non-toxic. Non-toxic claims should be clearly and prominently qualified to the extent necessary to avoid deception.

- **Green terms are not addressed in FTC Green guides, but should be qualified where necessary to avoid confusing or misleading consumers.**
Our study of green-related behaviors and beliefs of small business owners is based on a survey of small business owners conducted from mid-2011 to 2012. The survey sample was self-selecting and we reached our audience through a network of survey distribution partners, ranging from Intuit and eBay to sustainable business networks to local small business development and microenterprise intermediary organizations. The survey received 1,305 complete responses. Since we wanted to measure only the behaviors and beliefs of small businesses in the U.S., responses from other countries were excluded.

The survey respondents were asked about their behaviors and beliefs, including what, if any, green terms they use to describe their products and services in the marketplace and what environmentally-beneficial actions they have taken, if any. For those who took one or more environmentally-beneficial actions, we then asked questions about those actions to understand their perception of the relative ROI and capital requirements for those actions.

We used the data on usage of green terms and adoption of environmentally-beneficial actions to segment the survey respondents into three groups, ranging from Light-Green to Medium Green to Deep Green. We looked for any statistically significant differences among these “green segments” across demographic, experiential, and attitudinal factors.

Characteristics of Sample:
- 64% of respondents represented rural jurisdictions (based on the population density of supplied zip codes)
- 47% of respondents reported owning their facilities while 53% reported renting
- 66.3% operated out of their residence
- 27.4% have no employees, 57.7% have 1-5 FTEs and 41.9% have 1-5 PTEs

The Deep Green businesses had a slight tendency (not statistically significant) to have more employees, higher revenues, larger facilities and have been in business longer. The mean differences were not strong enough to explain the statistically significant and substantial differences in beliefs and behaviors between green segments.

The survey data were supplemented with interviews of approximately 30 small business owners, mostly in the Light Green to Deep Green range. More research and insight on the experiences, perceptions and support needs of the Non-Green segments could provide valuable insight for designing programs to support their success in emerging green markets.

Of the 1,305 respondents, 949 provided a clear industry response. The table below shows the variance of our sample against industry sizes in the 2010 U.S. Census.

<table>
<thead>
<tr>
<th>Census vs. Survey Data</th>
<th>&lt;500 employees</th>
<th>U.S. Total #</th>
<th>% of Total</th>
<th>Survey Total #</th>
<th>% of Survey Total</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation and food services</td>
<td>482,284</td>
<td>8.9%</td>
<td>35</td>
<td>3.7%</td>
<td>5.2%</td>
<td></td>
</tr>
<tr>
<td>Administrative and support and waste management and remediation services</td>
<td>395,292</td>
<td>7.3%</td>
<td>26</td>
<td>2.7%</td>
<td>4.5%</td>
<td></td>
</tr>
<tr>
<td>Agriculture &amp; food production</td>
<td>20,985</td>
<td>0.4%</td>
<td>63</td>
<td>6.6%</td>
<td>-6.3%</td>
<td></td>
</tr>
<tr>
<td>Arts, entertainment, &amp; recreation</td>
<td>113,861</td>
<td>2.1%</td>
<td>73</td>
<td>7.7%</td>
<td>-5.6%</td>
<td></td>
</tr>
<tr>
<td>Building &amp; construction</td>
<td>670,230</td>
<td>12.3%</td>
<td>71</td>
<td>7.5%</td>
<td>4.8%</td>
<td></td>
</tr>
<tr>
<td>Business &amp; management consulting</td>
<td>27,487</td>
<td>0.5%</td>
<td>46</td>
<td>4.8%</td>
<td>-4.3%</td>
<td></td>
</tr>
<tr>
<td>Educational services</td>
<td>79,687</td>
<td>1.5%</td>
<td>30</td>
<td>3.2%</td>
<td>-1.7%</td>
<td></td>
</tr>
<tr>
<td>Finance &amp; insurance</td>
<td>237,915</td>
<td>4.4%</td>
<td>29</td>
<td>3.1%</td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>Health care &amp; social assistance</td>
<td>631,426</td>
<td>11.6%</td>
<td>29</td>
<td>3.1%</td>
<td>8.5%</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>70,106</td>
<td>1.3%</td>
<td>16</td>
<td>1.7%</td>
<td>-0.4%</td>
<td></td>
</tr>
<tr>
<td>Manufacturing</td>
<td>258,662</td>
<td>4.7%</td>
<td>98</td>
<td>10.3%</td>
<td>-5.6%</td>
<td></td>
</tr>
<tr>
<td>Non-profit organization</td>
<td>285,796</td>
<td>5.2%</td>
<td>16</td>
<td>1.7%</td>
<td>3.6%</td>
<td></td>
</tr>
<tr>
<td>Professional &amp; technical services</td>
<td>766,244</td>
<td>14.1%</td>
<td>107</td>
<td>11.3%</td>
<td>2.8%</td>
<td></td>
</tr>
<tr>
<td>Public administration</td>
<td>-</td>
<td>0.0%</td>
<td>7</td>
<td>0.7%</td>
<td>-0.7%</td>
<td></td>
</tr>
<tr>
<td>Real estate, rental, &amp; leasing</td>
<td>267,129</td>
<td>4.9%</td>
<td>12</td>
<td>1.3%</td>
<td>3.6%</td>
<td></td>
</tr>
<tr>
<td>Retail trade</td>
<td>664,058</td>
<td>12.2%</td>
<td>242</td>
<td>25.5%</td>
<td>-13.3%</td>
<td></td>
</tr>
<tr>
<td>Transportation &amp; warehousing</td>
<td>162,308</td>
<td>3.0%</td>
<td>12</td>
<td>1.3%</td>
<td>1.7%</td>
<td></td>
</tr>
<tr>
<td>Wholesale trade</td>
<td>314,000</td>
<td>5.8%</td>
<td>37</td>
<td>3.9%</td>
<td>1.9%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>5,447,470</strong></td>
<td><strong>949</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key: 1. Includes both food service and accommodations establishments; 2. Includes employer establishments of both waste management & remediation and administrative and support; 3. Only includes establishments subject to federal income tax; 4. Includes all employer establishments exempt from federal tax income; 5. Not reported in Census business statistics

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### About the Report

The Big Green Opportunity for Small Business

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### MEASURING USE OF GREEN TERMS

Each possible green term was weighted based on its specificity and implied environmental value. These scores were used as part of our assignment of the businesses into the four green segments.

<table>
<thead>
<tr>
<th>TERM</th>
<th>Weighting in Green Segmentation: 1=Lowest Green Weighting</th>
<th>3=Highest Green Weighting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green (1)</td>
<td>Eco (1)</td>
<td>Degradable/biodegradable (3)</td>
</tr>
<tr>
<td>Environmentally-friendly (1)</td>
<td>Organic (3)</td>
<td>Climate-friendly (2)</td>
</tr>
<tr>
<td>Recycled/Recycled content (2)</td>
<td>Non-toxic (2)</td>
<td>Paperless (1)</td>
</tr>
<tr>
<td>Natural (1)</td>
<td>Free of (a harmful substance) (2)</td>
<td>Compostable (3)</td>
</tr>
<tr>
<td>Locally produced (3)</td>
<td>Energy-efficient/Energy-saving (2)</td>
<td>Made with renewable energy (3)</td>
</tr>
<tr>
<td>Recyclable (1)</td>
<td>Made with renewable materials (2)</td>
<td>Ozone-friendly/Ozone-safe (2)</td>
</tr>
</tbody>
</table>

### MEASURING ENVIRONMENTALLY-BENEFICIAL ACTIONS

Based on a methodology developed by Green America for its GreenGain sustainability tool, each environmentally-beneficial action was scored based on a formula involving dimensions: Cost of Implementation, Difficulty of Implementation, and Environmental Value. These scores were used as part of our assignment of the businesses into the four green segments.

**Environmentally-Beneficial Actions (possible points in green weighting)**

*Discounts were applied for renters, firms with no employees and renters on some actions.*

- Reduce paper use (e.g. double-sided printing) ........................................... 16
- Recycle and/or reuse in-house plastics, paper, metals, glass, and/or organics ................................................................. 30
- Install more efficient lighting .............................................................................. 16
- Purchase energy efficient equipment .................................................................. 16
- Shift from paper to electronic communication and filing .................................. 12
- Purchase in bulk .................................................................................................. 18
- Enable energy-saving settings on computers .................................................... 6
- Train staff to conserve energy .......................................................................... 8
- Implement lighting upgrades (e.g. motion sensors) .............................................. 12
- Train staff to conserve water ............................................................................. 8
- Donate food and/or equipment to charities ....................................................... 8
- Increase purchasing of products in a local vicinity .......................................... 16
- Switch to reusable food containers ................................................................... 16
- Install programmable thermostats ..................................................................... 12
- Inventory management to decrease waste ....................................................... 16
- Decrease packaging on products ..................................................................... 16
- Take back and recycle used products from customers (printer cartridges for example) .......................................................... 40
- Reduce business travel with webinars and tele-meetings ............................... 12
- Install low-flow toilets ...................................................................................... 24
- Install low-flow showerheads and faucet aerators ........................................... 12
- Set up on-site composting of organic/food waste material .............................. 12
- Insulate our facility ........................................................................................... 40
- Install energy efficient windows ....................................................................... 40
- Offer telecommuting options for employees .................................................. 21
- Use rain water barrel and/or collection system .............................................. 8
- Redesign transportation routes ........................................................................ 16
- Organize employee carpools ............................................................................ 10
- Resell waste and recyclable material directly to a buyer ............................... 25
- Use hybrid and/or electric vehicles ................................................................... 36
- Purchase renewable energy (through a green energy market) ......................... 16
- Institute e-waste recycling and disposal program ........................................... 15
- Redesign product to require less energy in production .................................. 20
- Minimize transportation through product redesign ......................................... 12
- Create employee incentives for reducing energy use ..................................... 12
- Redesign product to decrease waste outputs .................................................. 20
- Move to a more energy efficient office/facility .............................................. 24
- Implement/use tankless water heater ................................................................. 24
- Implement a power management program ....................................................... 16
- Subsidize employee use of public transportation ............................................ 18
- Install Solar photovoltaic (electric) panels ...................................................... 60
- Arrange for recycling to be picked up by hauler .............................................. 16
- Utilize Biofuel heating oil (including wood, pellet or corn stoves) .................. 30
- Install automatic faucets ................................................................................... 12
- Install Solar hot water heating .......................................................................... 50
- Redesign product to require less water in manufacturing and distribution ....... 20
- Use biodiesel and/or waste vegetable oil vehicles ............................................ 24
- Paint roof white ............................................................................................... 21
- Install waste water reclamation system ............................................................ 30
- Install a green roof (e.g. sod) ........................................................................... 30
- Install Wind turbine ......................................................................................... 60
- Install composting toilets ................................................................................ 36
- Install Geothermal ............................................................................................ 60
- Install Fuel cells ............................................................................................... 60
- Purchase carbon offsets ................................................................................... 12
- Follow a local procurement policy of 200 mile radius or less ....................... 24
- Purchase environmentally beneficial products for use in operations ............ 16
- Purchase environmentally beneficial products as input materials ................. 20
- Include environmental performance standards in your service agreements with vendors .................. 16
THE BIG GREEN OPPORTUNITY
for Small Business in the U.S., 2013

Many thanks to the sponsors, partners, researchers and others whose time and expertise made this study possible.

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EcoVentures International
Green America

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Green America has been growing the green economy for 30 years. We leverage economic strategies to solve social and environmental problems, mobilizing people in their economic roles—as consumers, investors, workers, business leaders—to help create an economy that prioritizes the needs of people and the planet. Through our business program, the Green Business Network, we’ve helped thousands of small green businesses emerge and succeed, to show the way to a green economy that works.

EcoVentures International (EVI) supports business to harness the power of environmentally and socially responsible “green” practices, products, and services to realize efficiencies and achieve growth in both traditional and emerging economies. Sustainable businesses can transform communities through the creation of economically, environmentally, and socially sustainable jobs.

The Association for Enterprise Opportunity is the voice of microbusiness in the United States. For two decades, AEO, its members and network partners have helped millions of entrepreneurs contribute to economic growth while supporting themselves, their families and their communities. AEO members and partners include a broad range of organizations that provide capital and services to assist underserved entrepreneurs in starting, stabilizing and expanding their businesses.

BIG GREEN OPPORTUNITY SPONSORS
Many thanks to the sponsors who made each organization’s work on this report possible:

The participation of Green America was funded through support from

Ebay

The participation of EcoVentures was funded through support from

Bank of America

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