

# The “Six Sins of Greenwashing™”

A Study of Environmental Claims in North American Consumer Markets



A 'Green Paper' by  
TerraChoice Environmental Marketing Inc.  
(November 2007)



**terrachoice**  
environmental marketing

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## The “Six Sins of Greenwashing™”

A Study of Environmental Claims in North American Consumer Markets

Green·wash (grēn'wōsh', -wōsh') – verb: the act of misleading consumers regarding the environmental practices of a company or the environmental benefits of a product or service.

### Overview

The recent surge of environmental awareness in North America is unmistakable. It has been documented by many researchers and widely reported in the popular press. The rise in “green” marketing claims has also been well documented. Less studied is the apparent increase in “greenwashing” – false or misleading green marketing claims.

In an effort to describe, understand, and quantify the growth of greenwashing, TerraChoice Environmental Marketing Inc. conducted a survey of six category-leading big box stores. Through these surveys, we identified 1,018 consumer products bearing 1,753 environmental claims. Of the 1,018 products examined, all but one made claims that are demonstrably false or that risk misleading intended audiences.

Based on the survey results, we identified six patterns in the greenwashing, which we now recognize as the “Six Sins of Greenwashing™”.

Of the 1,018 products reviewed, all but **one** committed at least one of the Six Sins of Greenwashing.

These findings suggest that greenwashing is pervasive, the consequences of which are significant:

- Well-intentioned consumers may be misled into purchases that do not deliver on their environmental promise. This means both that the individual consumer has been misled and that the potential environmental benefit of his or her purchase has been squandered.
- Competitive pressure from illegitimate environmental claims takes market share away from products that offer more legitimate benefits, thus slowing the penetration of real environmental innovation in the marketplace.
- Greenwashing may create cynicism and doubt about all environmental claims. Consumers – particularly those who care most about real environmental progress – may give up on marketers and manufacturers, and give up on the hope that their spending might be put to good use. This would eliminate a significant market-based, financial incentive for green product innovation and leave committed environmental advocates with government regulations as the most likely alternative.



### The “Six Sins of Greenwashing™”

1. Sin of the Hidden Trade-Off
2. Sin of No Proof
3. Sin of Vagueness
4. Sin of Irrelevance
5. Sin of Fibbing
6. Sin of Lesser of Two Evils



## Research Methodology

In the spring of 2007, TerraChoice sent research teams into six category-leading big box stores with instructions to record every product-based environmental claim they observed. We instructed the teams that, for each environmental claim, they should identify the product, the nature of the claim, any supporting information, and any references offered for further information.

After recording 1,753 environmental claims on 1,018 products (refer to Appendix A), we tested the claims against current best practices in environmental marketing. The sources for these best practices include the International Organization for Standardization (ISO)<sup>1</sup>, the U.S Federal Trade Commission<sup>2</sup>, U.S Environmental Protection Agency<sup>3</sup>, Consumers Union<sup>4</sup>, and the Canadian Consumer Affairs Branch<sup>5</sup>.

Finally, we studied the resulting list of false or misleading claims for patterns and lessons. We have come to call these patterns the “Six Sins of Greenwashing”. Of the 1,018 products that made environmental claims, all but one committed at least one of the Six Sins.

## Defining and Quantifying the Six Sins of Greenwashing

Based on our analysis, we categorized the false or misleading environmental claims into the following “Six Sins of Greenwashing”:

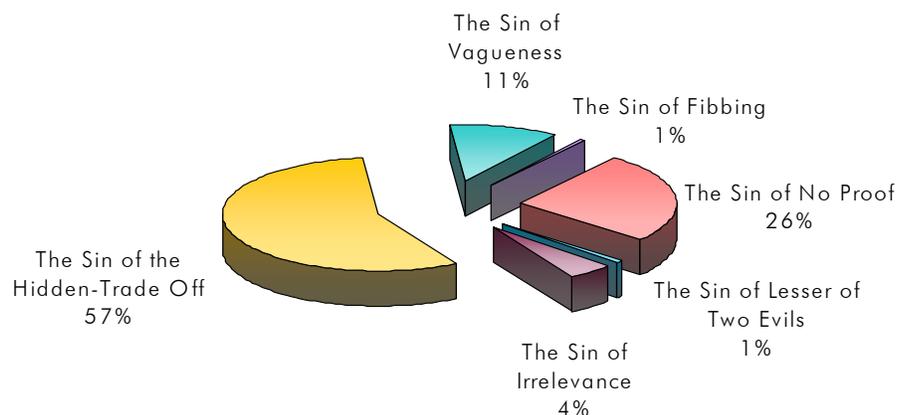
- **Sin of the Hidden Trade-Off** – The Sin of the Hidden Trade-off is committed by suggesting a product is “green” based on a single environmental attribute (the recycled content of paper, for example) or an unreasonably narrow set of attributes (recycled content and chlorine free bleaching) without attention to other important, or perhaps more important, environmental issues (such as energy, global warming, water, and forestry impacts of paper). Such claims are not usually false, but are used to paint a “greener” picture of the product than a more complete environmental analysis would support.

Here are some examples from the research:

### Examples:

- ◆ Paper (including household tissue, paper towel, and copy paper) and lumber products (such as framing products and plywood) that promote their recycled content or sustainable harvesting practices without attention to manufacturing impacts such as air emissions, water emissions, and global warming impacts.
- ◆ Household insulation products (such as batt insulation products for home renovation products) that claim indoor air quality benefits without attention to other environmental aspects such as recycled content and manufacturing impacts.

## Sins Committed by Category





## The Six Sins Of Greenwashing™

- ◆ Office technology (printers, copiers, fax machines) that promote energy efficiency without attention to hazardous material content, indoor air quality, or compatibility with recycled paper or remanufactured toner cartridges.
- ◆ Other product claims that committed this sin include ink cartridges, laundry detergents, dish detergent, air fresheners, bathroom cleaners, markers, flooring laminate, bags, multi-purpose cleaners, wood panels, and pesticides.

*The Sin of the Hidden Trade-off was the most frequently committed sin in the study, made by 57% of all environmental claims.*

□ **Sin of No Proof** – Any environmental claim that cannot be substantiated by easily accessible supporting information, or by a reliable third-party certification, commits the Sin of No Proof. (For this research, we determined there to be ‘no proof’ if supporting evidence was not accessible at either the point of purchase or at the product website.)

Among others, our research found these examples of the Sin of No Proof:

- ◆ Household lamps and lights that promote their energy efficiency without any supporting evidence or certification.
- ◆ Personal care products (such as shampoos and conditioners) that claim not to have been tested on animals, but offer no evidence or certification of this claim.
- ◆ Facial tissues and paper towels that claim post-consumer recycled content without providing evidence.

*We found a total of 454 products and approximately 26% of the environmental claims committed the Sin of No Proof; making it the second most frequently committed sin.*

□ **Sin of Vagueness** – The Sin of Vagueness is committed by every claim that is so poorly defined or broad that its real meaning is likely to be misunderstood by the intended consumer.



This mobius loop is intended to mean that the product is made from recycled material. But is it the whole product, or the package? And is it made of 100% recycled material, or less? And is it post-consumer waste, or post-industrial waste? Without a qualifying statement, the symbol is likely to mislead the buyer, committing the Sin of Vagueness.

There are some recurring themes within these vague claims. For example:

- ◆ “Chemical-free”. In fact, nothing is free of chemicals. Water is a chemical. All plants, animals, and humans are made of chemicals as are all of our products.
- ◆ “Non-toxic”. Everything is toxic in sufficient dosage. Water, oxygen, and salt are all potentially hazardous.
- ◆ “All Natural”. Arsenic is natural. So are uranium, mercury, and formaldehyde. All are poisonous.
- ◆ “Green”, “Environmentally friendly”, and “Eco-conscious” (to name just a few) which are utterly meaningless without elaboration.

Some product examples from the research:

- ◆ Garden insecticides promoted as “chemical-free”.
- ◆ “Natural” hair mousse.
- ◆ Kitchen (wax) paper that claims “recycled content” but does not quantify it (Would 0.1% qualify?)



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- ◆ General purpose household cleaners that claim to be “non-toxic” without explanation or third-party substantiation.
  - “100% natural” bathroom cleaners.

*In our research sample, 196 individual products (or 11% of the environmental claims) committed the Sin of Vagueness.*

□ **Sin of Irrelevance** – The Sin of Irrelevance is committed by making an environmental claim that may be truthful but is unimportant and unhelpful for consumers seeking environmentally preferable products. It is irrelevant and therefore distracts the consumer from finding a truly greener option.

The most frequent example of an irrelevant claim relates to chlorofluorocarbons (CFCs) – a principal contributor to ozone depletion. Since CFCs have been legally banned for almost 30 years, there are no products that are manufactured with it. Nevertheless, we found many individual products that presented CFC-free claims as an apparently unique environmental advantage. They included:

- ◆ CFC-free insecticides,
- ◆ CFC-free lubricants,
- ◆ CFC-free oven cleaners,
- ◆ CFC-free shaving gels,
- ◆ CFC-free window cleaners,
- ◆ CFC-free disinfectants.

*The Sin of Irrelevance accounted for 78 products and 4% of the environmental claims.*



CFCs have been legally banned for almost 30 years, yet many products still claim CFC-free as if it is a unique competitive advantage.

□ **Sin of Lesser of Two Evils** – These are “green” claims that may be true within the product category, but that risk distracting the consumer from the greater environmental impacts of the category as a whole. Examples include:

- ◆ Organic cigarettes.
- ◆ “Green” insecticides and herbicides.

Obviously, there are some circumstances and consumers that demand these products. Commercial insecticides and herbicides are essential to some agricultural applications. In those circumstances, choosing the greenest option is essential. However, insecticides and pesticides may be unnecessary for many cosmetic applications (such as lawns). Organic tobacco may be a more responsible choice for smokers, but shouldn’t most consumers be discouraged from smoking in the first place?

We consider a claim to commit the Sin of Lesser of Two Evils when environmental qualifiers such as “organic” or “green” are placed on products in which the entire product category is of questionable environmental value.

*In this study, 17 products and approximately 1% of environmental claims committed the Sin of Lesser of Two Evils.*

□ **Sin of Fibbing** – The Sin of Fibbing is committed by making environmental claims that are simply false.

In our findings, only a few products were found to commit the Sin of Fibbing. Most of these were misuse or misrepresentation of certification by an independent authority. These cases included, for example:

- ◆ Several shampoos that claimed to be “certified organic”, but for which our research could find no such certification.
- ◆ A caulking product that claims to be “Energy Star” registered, but the official Energy Star website suggests this is false.
- ◆ A dishwasher detergent that purports to be packaged in “100% recycled paper”, and yet the container is plastic.



10 products (less than 1% of environmental claims) committed the Sin of Fibbing, making it one of the two least frequently committed sins.

### Recommendations for Consumers

Governments and standard-setting bodies have attempted to discourage greenwashing. In North America, both the US Federal Trade Commission<sup>6</sup> and the Canadian Consumer Affairs office<sup>7</sup> have issued guidelines for proper use of environmental claims. Under ISO 14024, the International Organization for Standardization establishes guidelines for proper use of environmental information.<sup>8</sup> But it is our observation that when environmental interest is high, as it is today, greenwashing is nevertheless prolific.



#### Multi-Attribute Versus Single-Attribute Claims

When seeking environmentally preferable products, it is important to look at multiple environmental considerations rather than just single environmental issues.

As an analogy, when attempting to identify healthier food choices, it can be useful to look at calorie content. It is more helpful, however, to also examine fat, sugar, and vitamin content.

The most respected environmental claims incorporate multiple environmental considerations throughout every phase of a product's life-cycle, which includes the environmental impacts of the raw materials, manufacturing process, the product itself, and its ultimate disposal.

Single-attribute claims look at only a single environmental issue such as recycled-content or energy-efficiency. While important, single attribute claims can hide important additional environmental considerations.

If the good intentions of consumers and the environmental benefits of their choices are not to be squandered, consumers themselves will have to play a role. Here are some suggestions that arise from this study.

#### 1. Look for Eco-labels.

Eco-labelling – standardized by ISO 14024 and recognized around the world – arose as an answer to earlier efforts of greenwashing. They remain one of the most useful tools to avoid greenwashing. Look for products that have been certified by a qualified and independent third-party such as EcoLogo<sup>CM</sup> or Green Seal. Both EcoLogo<sup>CM</sup> and Green Seal develop standards for environmental leadership in an open, transparent consensus-based process that considers multiple environmental issues throughout a product's lifecycle (from resource extraction to end-of-life). These programs deliver a shortcut to "greener" products through:

- Clear public standards for environmental leadership in each product category;
- Third-party verification that each certified product meets the applicable standards;
- Ongoing surveillance auditing to ensure continued compliance;
- Public listings of certified products.

Additional information on other environmental standards is included in Appendix B.

#### Example of Multi-Attribute Eco-labels:



EcoLogo<sup>CM</sup>  
www.ecologo.org



Green Seal  
www.greenseal.org



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### 2. Look For Evidence of Any of the “Six Sins” By Asking the Following Questions:

- a) Is the “green” claim restricted to just one, or a narrow set of environmental issue(s)? (**The Sin of the Hidden Trade-Off.**) If so, you might look for other information that gives a more complete picture of the environmental impact of the product. “Okay, this product comes from a sustainably harvested forest, but what are the impacts of its milling and transportation? Is the manufacturer also trying to reduce those impacts?” *Emphasizing* one environmental issue isn’t a problem (indeed, it often makes for better communications). *Hiding* a trade-off between environmental issues is a problem.
- b) Does the claim help me find more information and evidence? (**The Sin of No Proof.**) It may not be reasonable to expect a product label or a point-of-purchase brochure to provide detailed scientific explanations of a green claim. It is reasonable to expect a product label or brochure to direct you to where you can find further evidence. Good green marketing helps the consumer find the evidence and learn more. Company websites, third-party certifiers, and toll-free phone numbers are easy and effective means of delivering proof.
- c) Is the environmental and scientific meaning of the claim specific and self-evident? If not, is the specific meaning given? (**The Sin of Vagueness.**) Products with names like “eco-gadget” and “natur-widget” aren’t necessarily making false or misleading claims, but they should cause you to be suspicious. If the marketing claim doesn’t explain itself (“here’s what we mean by ‘eco’ ...”), the claim is vague and meaningless. Similarly, watch for other popular vague green terms: “non-toxic”, “all-natural”, “environmentally-friendly”, and “earth-friendly.” Without adequate explanation, such claims are so vague as to be meaningless.
- d) Could all of the other products in this category make the same claim? (**The Sin of Irrelevance.**) The most common example is easy to detect: “CFC-free” is a meaningless claim. It is irrelevant because no products are manufactured with chlorofluorocarbons. Other cases may be harder to detect. Ask yourself if the claim is important and relevant to the product. (If a light bulb claimed water efficiency benefits you should be suspicious.) Comparison-shop (and ask the competitive vendors). If the claim seems illogical and disconnected from the product, it may very well be irrelevant.
- e) When I check up on it, is the claim true? (**The Sin of Fibbing.**) This sin can be difficult to detect. The most frequent examples in this study were false uses of third-party certifications. Thankfully, these are easy to confirm. Legitimate third-party certifiers – EcoLogo<sup>CM</sup>, Chlorine Free Products Association (CFPA), Forest Stewardship Council (FSC), Green Guard, Green Seal (for example) – all maintain publicly available lists of certified products. Some even maintain fraud advisories for products that are falsely claiming certification.
- f) Is the claim trying to make consumers feel “green” about a product category that is of questionable environmental benefit? (**The Sin of the Lesser of Two Evils.**) Consumers concerned about the adverse effects of tobacco and cigarettes would be better served by quitting smoking than by buying organic cigarettes. Similarly, consumers concerned about the human health and environmental risks of excessive use of lawn chemicals might create a bigger environmental benefit by reducing their use than by looking for greener alternatives.



### Recommendations for Marketers

Green marketing is a vast commercial opportunity, and should be. When it works – when it is scientifically sound and commercially successful – it is an important accelerator toward environmental sustainability. The purpose of this study is not to discourage green marketing, nor to indict particular marketers. Our purpose is to help marketers improve their claims so that:

- Genuinely “greener” products excel;
- Competitive pressure from illegitimate green claims is diminished;
- Consumers do not become jaded and unduly skeptical of green claims; and,
- Marketers employ environmental concerns to establish honest, trustworthy, and long-lasting dialogue with their customers.

Green marketers and consumers are learning about the pitfalls of greenwashing together. This is a shared problem and opportunity.

The Six Sins of Greenwashing does NOT suggest that only perfectly “green” products should be marketed as environmentally preferable. First of all, there is no such thing as a perfectly “green” product. Environmentally preferable products are “greener” not “green”, and marketing them as such is entirely fair. Second, environmental progress is necessarily stepwise. Not only should incrementally “greener” innovations and products be encouraged, consumers should and will reward stepwise progress.

Avoiding greenwashing does not require waiting for a perfect product. It does mean that sound science, honesty, and transparency are paramount.

Green marketers and consumers are learning about the pitfalls of greenwashing together. This is a shared problem and opportunity.

The Six Sins suggest a number of specific guidelines for marketers, outlined below.

- 1) Avoiding the Sin of the Hidden Trade-Off
  - a) **Do** understand all of the environmental impacts of your product across its entire lifecycle.
  - b) **Do** emphasize specific messages (particularly when you know your audiences care about those issues) but don't use single issues to distract from other impacts.
  - c) **Do** pursue continual improvement of your environmental footprint (across the entire lifecycle), and encourage your customers to join you on that journey.
  - d) **Do** draw on multi-attribute eco-labeling standard and certification programs, such as EcoLogo<sup>CM</sup> and Green Seal for legitimacy of environmental claims.
  - e) **Don't** make claims about a single environmental impact or benefit, without knowing how your product performs in terms of its other impacts, and without sharing that information with your customers.
- 2) Avoiding the Sin of No Proof
  - a) **Do** understand and confirm the scientific case behind each green marketing claim.
  - b) **Do** provide evidence to anyone that asks, OR rely on third-party certifications such as EcoLogo<sup>CM</sup> and Green Seal (since those standards are public).
- 3) Avoiding the Sin of Vagueness
  - a) **Do** use language that resonates with your customer, as long as that language is truthful.
  - b) **Do** use caution in your use of the recycling/recyclable symbol (the mobius loop). Its use is so widespread and confused that it has become largely meaningless.
  - c) **Don't** use vague names and terms (such as environmentally-friendly) without providing precise explanations of your meaning.
  - d) **Don't** use the terms “chemical-free” and “all-natural”.



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- 4) Avoiding the Sin of Irrelevance
  - a) **Don't** claim CFC-free, because it is not a legitimate point of competitive differentiation.
  - b) **Don't** claim any environmental benefit that is shared by all or most of your competitors.
- 5) Avoiding the Sin of the Lesser of Two Evils
  - a) **Do** help each customer find the product that is right for them, based on their needs and wants.
  - b) **Don't** try to make a customer feel "green" about a choice that is basically harmful or unnecessary.
- 6) Avoiding the Sin of Fibbing
  - a) **Do** tell the truth. Always.
  - b) **Always** tell the truth.

## Concluding Thoughts

Green marketing is a powerful convergence between green buyers and sellers . More and more consumers expect to use their spending as an expression of their environmental commitment. More and more businesses are establishing environmental performance as a point of competitive distinction and social responsibility. When genuine environmental leadership is rewarded in the marketplace (with market share, price premiums, public respect, and increased visibility), it motivates all products to improve. It uses competition and free enterprise to pull the economy toward sustainability.

With that in mind, the purpose of this study is not to discourage green marketing, nor to indict particular marketers. It is not intended to scare consumers away from green claims. Our purpose is to assist marketers and consumers to build a more honest and effective dialogue about the environmental impacts of products.

Although our findings - the Six Sins of Greenwashing – may seem bleak, green marketers and consumers are learning about the pitfalls of greenwashing together. This is a shared problem and opportunity. When green marketing overcomes these challenges, consumers will be better able to trust green claims and genuinely environmentally preferable products will penetrate their markets more rapidly and deeply. This will be great for consumers, great for business, and great for the planet.

We expect to repeat this research annually, and look forward to these positive developments.



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This "Green Paper" was prepared by TerraChoice Environmental Marketing. Are you curious about the results? Interested in learning more? Would you like to speak to anyone at TerraChoice? Please visit [www.terrachoice.com/sixsinsofgreenwashing](http://www.terrachoice.com/sixsinsofgreenwashing) for more information.

## APPENDICES

### APPENDIX A — Product Categories In Which Environmental Claims Were Found

- Air Fresheners
- Appliances
- Automotive Cleaner
- Bags
- Bathroom Cleaner
- Body Lotion
- Carpet Cleaner
- Caulking
- Conditioner
- Degreaser
- Deodorant
- Dish Detergent
- Disinfectant Sprays
- Envelopes
- Envelopes
- Fabric Softener
- Facial Tissues
- Floor Cleaner
- Flooring
- Foam Bath
- Furniture Polish
- Gel
- Glass Cleaner
- Green Product Section
- Hairspray
- Hand Lotion
- Hand Soap
- Herbicides
- Ink Cartridges
- Insect/Pesticides
- Insulation
- Laundry Detergent
- Light Bulbs
- Lighting
- Lubricant
- Mousse
- Mouth Wash
- Multi Purpose Cleaner
- Oven Cleaner
- Packaging Materials
- Paint
- Paper
- Portfolios
- Printers/copiers
- Scrub Pads
- Serviettes
- Shampoo
- Shaving Gel
- Shipping Boxes
- Stainless Steel Polish
- Televisions
- Toilet Tissue
- Toothpaste
- Wood (panels)
- Wraps
- Writing Instruments

## APPENDIX B — Eco-labels

Consumers can avoid greenwashing by seeking products that are certified to meet legitimate environmental standards such as EcoLogo<sup>CM</sup> or Green Seal. There are, however, a growing number of additional environmental standards and claims being made.

When comparing environmental standards, consumers would be wise to ask the following questions:

### **(1) What type of environmental claim is being made?**

Is the manufacturer making a claim about a single environmental attribute such as energy efficiency or recycled-content or is the manufacturer making a broader multi-attribute claim that the product meets an environmental leadership standard? While incredibly valuable, single-attribute environmental claims do not address other potentially important human health and environmental issues.

Environmental leadership standards such as EcoLogo<sup>CM</sup> and Green Seal examine all of the relevant environmental impacts of a product category along with the products currently available in the market when developing a standard. Leadership standards generally are designed so that only the top 20 percent of products in a category can meet it. This allows sufficient competition within the leadership category to help keep prices competitive while still being protective of human health and the environment.

### **(2) Is a copy of the environmental standard or testing protocol available for review?**

If a manufacturer can not or refuses to provide a copy of the environmental standard or testing protocol, one might suspect that the claim is only a marketing ploy. When they do provide a copy of the standard, review it carefully to determine if it references appropriate national or international environmental and performance standards.

Standard and testing protocols should have a clear and consistent meaning. They should be meaningful and verifiable. Good standards and protocols are designed so that anyone unaffiliated with the standard should be able to read it, interpret it, and know how to evaluate products against it. They should also be designed to ensure consistent evaluation results, meaning that different reviewers would likely reach the same conclusion about whether a product meets the standard or not.

In addition, multi-attribute environmental leadership standards should be based on human health and environmental considerations throughout the lifecycle of the product from raw material extraction, manufacture, use, and ultimate disposal of the product. The lifecycle stages considered and covered by the standard should be explicitly stated.

### **(3) How was the environmental standard or testing protocol developed?**

It is preferable that standards and testing protocols be developed in an open, public, transparent process similar to the way ANSI, ASTM, ISO 14024 or other public standards are developed. The standard setting organization should make records of the standard development process available for review.

### **(4) Who developed the environmental standard or testing protocol?**

The most trusted standards are those developed in a consensus-based process by broad stakeholder groups. Standards developed consistently with ISO 14024 protocols will make a list of stakeholder groups available upon request. Consumers should be less trustful of standards developed by an individual manufacturer or trade association because of potentially unmitigated conflicts of interest.

**(5) What process is used to verify that products actually meet the standard or passed the testing requirements?**

There are a variety of procedures to verify that a product meets a standard. Some are more rigorous (and can be more expensive for the manufacturer), but provide a greater degree of assurance. The standard verification procedures range (from most rigorous to least rigorous) as follows:

- Independent third-party certification with on-site audits – An independent organization verifies the products meet the standards based on a review of the product, additional information provided by the manufacturer, and after an onsite visit to verify the accuracy of the information provided by the manufacturer.
- Independent third-party certification – An independent organization verifies the products meet the standard based on a review of the product and additional information provided by the manufacturer.
- Self registration with random audits – Individual companies identify products meeting the environmental standard on their own without any preliminary review, but the standard setting organization or other independent auditors conduct random audits after products are registered to ensure compliance.
- Self registration – Individual companies identify products meeting the environmental standard on their own without any outside review.

It is important to note that a stringent verification process is relatively meaningless if the standard itself is not meaningful.

**Widely Accepted Environmental Standards:**

*Multi-Attribute Standard Setting and Certification Organizations*

These programs examine multiple environmental issues throughout the entire lifecycle of a product, which includes the environmental impacts associated with the collection of raw materials, the manufacturing process, the impacts of the product during its use, and the impacts when the product is ultimately recycled or disposed of. Before earning certification, an independent third-party auditor must verify that products actually meet the publicly-available standard.

- [EcoLogo <www.ecologo.org>](http://www.ecologo.org)

EcoLogo<sup>CM</sup> is North America's oldest and most widely known environmental leadership standard. The EcoLogo<sup>CM</sup> website includes more than 120 environmental standards and almost 7,000 certified products (stock-keeping units or SKUs). Purchasers are using the site to research or develop purchasing specifications and to put together potential bidder lists. EcoLogo<sup>CM</sup> is the only program in North America to have been accredited by the Global Eco-Labeling Network. It is a Type I eco-label according to ISO, and addresses all of the environmental attributes of the product.

- [Chlorine Free Products Association <www.chlorinefreeproducts.org>](http://www.chlorinefreeproducts.org)

CFPA certifies paper and tissue products meeting its multi-attribute standard.

- [Green Seal <www.greenseal.org>](http://www.greenseal.org)

Green Seal standards provide leadership criteria for the development of many types of products and services. The Green Seal website includes a list of all of the Green Seal-certified products and services with links to the manufacturers and providers.

### *Single Attribute Environmental Standard Setting and Certification Organization*

These programs focus on a single environmental issue such as indoor air quality or recycled content. Before earning certification, an independent third-party auditor must verify that products meet the publicly-available standard.

- Forest Stewardship Council <[www.fscus.org](http://www.fscus.org)>

The Forest Stewardship Council certifies wood products obtained from sustainably harvested forests. It also certifies environmentally preferable papers based on a multi-attribute approach.

- Green-e <[www.green-e.org](http://www.green-e.org)>

Green-e certifies sources of renewable electricity and renewable energy credits generated from clean energy sources such as wind, solar, or small-scale hydro-electric. It also certifies products that were manufactured in facilities using renewable energy.

- GREENGUARD <[www.greenguard.org](http://www.greenguard.org)>

GREENGUARD focuses exclusively on indoor air quality issues. Its website includes certified products in more than 15 different categories, from paint to baby cribs and mattresses to cleaning systems, flooring, adhesives, wall coverings, HVAC ductwork, window treatments, countertops, tiles, cabinets, and office furnishings. Today, there are over 120 manufacturers participating in the testing program with more than 150,000 products are certified.

### *Additional Environmental Standards*

Other programs allow manufacturers to declare their products meet a publicly available standard. They then conduct random audits to maintain the integrity of the environmental declarations. The existence of the public standards also allows others to independently verify the accuracy of the claims.

- Energy Star Program <[www.energystar.gov](http://www.energystar.gov)>

The U.S. Federal Government's Energy Star program establishes energy-efficiency criteria for a wide variety of products in more than 40 product categories. The site lists all of the products meeting the efficiency requirements. It also includes recommended purchasing specifications and online training resources.

- EPEAT <[www.epeat.net](http://www.epeat.net)>

EPEAT ranks computer desktops, laptops, and monitors into EPEAT Bronze, Silver, or Gold categories based on more than 50 environmental criteria. There are currently more than 600 products from 23 manufacturers on the EPEAT registry.

## APPENDIX C — References

<sup>1</sup> [http://www.iso.org/iso/iso\\_catalogue/catalogue\\_tc/catalogue\\_detail.htm?csnumber=23145](http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=23145)

<sup>2,6</sup> <http://www.ftc.gov/be/v970003.shtm>

<sup>3</sup> <http://www.epa.gov/epp/pubs/claims.htm>

<sup>4</sup> <http://www.greenerchoices.org/eco-labels/eco-home.cfm>

<sup>5,7</sup> [http://consumer.ic.gc.ca/epic/site/oca-bc.nsf/en/h\\_ca02302e.html](http://consumer.ic.gc.ca/epic/site/oca-bc.nsf/en/h_ca02302e.html)