

SUSTAINABLE BUSINESS & ENTERPRISE ROUNDTABLE  
ENTERPRISE LEADERSHIP COUNCIL MEMBER BRIEFING:  
INTERNATIONAL GREEN  
PRODUCT LABELS



# Table of Contents

<b>INTRODUCTION</b>	<b>3</b>
About Green Product Labels	3
Components of Leading Product Labels	4
International Regulatory Requirements	5
<b>GREEN PRODUCT LABELS AND DESCRIPTIONS</b>	<b>7</b>
Descriptions of Major Labels and Certification Systems	10
Governmental Label Programs	10
Private Labeling Programs	14
<b>RECOMMENDATIONS</b>	<b>19</b>
Barriers & Solutions	19
Resources and Tools	20
Eco-Label Lists and Product Databases	20
Evaluation of Labels and Marketing Claims	21
Procurement and Purchasing Guidance and Networks	21



## Introduction

Real estate (RE) executives seeking to improve the sustainability of their portfolios are increasingly paying attention to the supply chain and the materials procurement process as critical components of their company's sustainability strategy. To ensure that materials, equipment, and supplies are indeed environmentally responsible, executives and procurement teams refer to green product labels.

This briefing addresses the challenge for SBER Member-Client Executives of deciding between green product labels when making procurement decisions. It focuses primarily on the labeling systems that are referenced or required under the predominant, international green building rating systems, such as LEED, Green Globes, BREEAM, CASBEE, and others. It therefore discusses labels that are most relevant to corporate users and owners of commercial office space in the design and construction (D&C), operations and maintenance (O&M), and decommissioning phases of development.

## About Green Product Labels

According to Eco Label Index, a catalogue and advisory listing of the available labeling systems on the market, over 430 labeling schemes are currently in use on products around the world.<sup>1</sup> The sheer number of labels can create confusion and uncertainty over which labels to look for and which certifications have the most stringent standards. Likewise, the existence of overlapping labels—such as the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiative (SFI) certifications for wood-sourced products—highlights the need for transparency when evaluating the legitimacy of a label. When seeking to verify the sustainable supply of materials, RE executives must decide which labels to rely on.

The International Standard Organization (ISO) and national certifying bodies, such as the American National Standards Institute (ANSI), provide guidelines for labeling protocols which serve an important basis for the most stringent labels. The ISO 14020:2000 standard lists three types of environmental standards:

Type I: environmental labels [third-party schemes from independent organizations, ISO 14021:1999].

Type II: environmental claims and self-declarations [issued by manufacturers, usually without independent verification, ISO 14024:1999]

Type III: environmental product declarations (EPDs) [issued by manufacturers, based on and verified against third-party schemes, ISO 14025:2006]

<sup>1</sup> <http://www.ecolabelindex.com/ecolabels/>

This briefing focuses on Type I environmental labels referenced by the leading green building rating systems and issued by third-party organizations. Such labels have applicability in international RE markets because they are verified and enforced by organizations that do not manufacture products.

Executives should note that type III EPDs (ISO 14025:2006) are becoming increasingly common in Europe and parts of East Asia, as building product manufacturers complete a comprehensive, peer-reviewed life cycle assessment (LCA) in accordance with the ISO 14044:2006 standard. Declarations are not necessarily a statement of environmental superiority, but the disclosure of the life-cycle impacts of a product for comparison against benchmarks and other products. EPDs can only be obtained for products for which there is also an established LCA framework.

## Components of Leading Product Labels

SR Inc's research and analysis have found that quality labels generally have the following attributes:

1. **Independent verification.** The most widely respected labels generally have both their performance **standards** and their **criteria** for certification verified by an outside institution, either a governmental authority or independent research body. Government-sponsored labels, such as the US Environmental Protection Agency's (EPA) ENERGY STAR program, often provide an added level of scrutiny because they are developed in partnership with researchers and stakeholders at private and public organizations.
2. **Performance standards.** Most labels are based on scientifically researched and tested standards. For labels that certify certain operational outcomes (energy and water efficiency, indoor air filtration, etc.), the basis in robust engineering and science standards is particularly important.
3. **Third-party certification.** As most labeling bodies do not have the resources to conduct assessments and verification for each product, they often assign to third-party organizations (with technical expertise) the role of verifying that products meet all required criteria. These organizations typically conduct site visits to production facilities, assess supply chain performance, and verify all information provided in a product application.
4. **Number of attributes certified.** The vast majority of labels on the market are **single-attribute** labels, certifying only a specific product or product category, such as paper products, wood materials, or electronics. Some larger labeling organizations and government bodies have developed influential **multi-attribute** labels (ENERGY STAR and Green Seal are well-known examples), that certify a wide variety of products which meet similar criteria,

such as efficient use of energy. Single-attribute labels are likely to be more stringent for and relevant to specific products, but they often have less market penetration and stakeholder awareness.

5. **Stakeholder awareness and visibility.** A high-quality label is only as valuable as the reputation and awareness it has attained among stakeholders. Owners are particularly interested in labels that are recognized by potential tenants and by green building rating systems, as a means to attract tenants with a focus on sustainability. Corporate users also find that investors and reporting agencies value certain well-known labels.<sup>2</sup>
6. **Penalties for misuse.** In recent years many labels have come under scrutiny after widely publicized misuse and misrepresentation.<sup>3</sup> As part of the labeling agreement and assessment process, advanced labels will include penalties if a product is found to misrepresent the standards and criteria required of the label. Penalties might include fines (usually only for government-sponsored labels), higher fees for relabeling (for new product editions or other products), and disallowed future use of the label, on top of negative publicity.

In addition to verifying that labels possess these key attributes, RE executives are interested primarily in labels that are directly relevant to their needs. Relevant labels primarily certify: **construction materials** (including timber, flooring materials, insulation, windows, recycled content, etc.), **HVAC equipment, appliances, computers, electrical equipment, plumbing systems and equipment, paper products, green cleaning products, and renewable energy.**

## International Regulatory Requirements

Green product labels are increasingly relevant in international markets, particularly the European Union (EU), Japan, China, and Australia. In these regions and countries, governing bodies may require that construction materials, electronic equipment, and cleaning products meet certain standards. Table 1 below details the relevant regulatory requirements for each product type.

RE executives operating in the below regions or countries should follow the requirements of each labeling system, or check for labels with multi-regional relevance. Many regulatory bodies will accept substitutions of similarly stringent labels. The leading US labels are widely accepted internationally.

<sup>2</sup> See, for example: ENERGY STAR Investment Analysis. [http://www.energystar.gov/ia/business/EPA\\_BUM\\_CH3\\_InvestAnalysis.pdf?7d54-f40d](http://www.energystar.gov/ia/business/EPA_BUM_CH3_InvestAnalysis.pdf?7d54-f40d)

<sup>3</sup> Swain, Glenn (2011). "On the Alert for Misleading Ads." New York Times Green Blog, November 16, 2011. <http://green.blogs.nytimes.com/2011/11/16/on-the-alert-for-misleading-ads/>

Table 1. Regulations governing product types

Country or Region	Regulations	Labeling System(s)
United Kingdom (UK)	UK Forestry Standard (1998): requires all UK government construction projects to use sustainably-harvested wood products and other forest materials. <sup>4</sup>	Forest Stewardship Council; Sustainable Forestry Initiative
European Union (EU)	Sustainable Development Policy (2001, amended 2005): long-term strategy sets standards for sustainable development in EU countries, with increasing requirements for Ecolabel (or similar) certification of construction materials. <sup>5</sup>	Ecolabel
India	India's Energy Conservation and Building Code (2007) applies to new construction commercial buildings with annual energy use over 500kWh. ECBC sets specific standards for emissions reductions. The code is overseen by the Ministry of Power and the Bureau of Energy Efficiency.	Third-party certification of high-efficiency products and low VOC materials is mentioned, but no specific labels are given.
Japan	The Building Standard Law of Japan (1969-2009): ongoing updates to Japan's building standards are increasingly incorporating sustainable materials sourcing, especially requiring certified timber products.	Forest Stewardship Council; Sustainable Forestry Initiative; EcoMark Japan
Singapore	Singapore's Workplace Safety and Health Act (2006) set strict maximum levels for VOC emissions in offices and factories, which many certification systems can ensure.	GREENGUARD; Green Seal; Singapore Green Labeling Scheme
South Korea	The Building Design Criteria for Energy Saving (BDCES, 2001) is South Korea's mandatory building energy code, requiring developers to meet specific requirements for energy efficient equipment. The criteria conform to South Korea's National Basic Plan for Energy (2008), which sets 5 year targets for nationwide energy use from 2010-2030. <sup>6</sup>	None mentioned (criteria for HVAC systems and equipment are set by BDCES specifically). <sup>7</sup>
China	China's Design Standard for Energy Efficiency in Public Buildings (2005) applies to all non-residential ("public") buildings. The standard sets minimum targets for energy efficiency and includes voluntary and prescriptive criteria to encourage more advanced performance.	No specific labels (ENERGY STAR, Green Seal, and others may apply).
Australia	Australian developers are increasingly required to report building performance through the NABERS system, which includes reporting on the life-cycle impact of construction materials. <sup>8</sup>	Green Star
Latin America & Caribbean	Most LATAM countries fall within the scope of LEED certification (e.g. LEED Brazil, LEED Mexico, and LEED Argentina). Few countries have specific regulations to improve sustainability or environmental performance. Green procurement and material guidelines therefore align with LEED and described below. <sup>9</sup>	Green Seal; ENERGY STAR; Forest Stewardship Council; Sustainable Forestry Initiative

<sup>4</sup> <http://www.rfs.org.uk/learning/sustainable-forestry>

<sup>5</sup> [http://europa.eu/legislation\\_summaries/environment/sustainable\\_development/l28117\\_en.htm](http://europa.eu/legislation_summaries/environment/sustainable_development/l28117_en.htm)

<sup>6</sup> <http://energycodesocean.org/state-country/south-korea>

<sup>7</sup> [http://www.energycodes.gov/publications/research/documents/countryReports/CountryReport\\_Korea.pdf](http://www.energycodes.gov/publications/research/documents/countryReports/CountryReport_Korea.pdf)

<sup>8</sup> <http://www.nabers.com.au/faqs.aspx>

<sup>9</sup> <http://blog.builddirect.com/greenbuilding/green-building-in-latin-america/>

## Green Product Labels and Descriptions

The table below provides an overview of the major labels required by the leading international green building rating systems: LEED (international), BREEAM (international), HQE (France), DGNB (Germany), Green Globes (US, Canada), CASBEE (Japan), Green Star (Australia & New Zealand), Green Mark (Singapore), and Estidama (United Arab Emirates). For more information on these green building rating systems, see SR Inc's briefing *International Green Building Rating Systems* (2010). Table 2 below lists each label alphabetically, with relevant information about the types of products and cost premiums on those products.

Table 2. List of leading labels and certification schemes

Label or Certification	Relevant Rating System(s)	Relevant Property Types	Product(s) Covered	Average Cost Premium (%)
Cradle to Cradle (C2C)	n/a (LEED Innovation Credits)	<ul style="list-style-type: none"> <li>Commercial office</li> <li>Retail &amp; hospitality</li> <li>Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>Construction materials</li> <li>HVAC equipment</li> <li>Appliances, computers &amp; electronics</li> <li>Plumbing systems and equipment</li> <li>Paper products</li> <li>Green cleaning products</li> </ul>	Cradle to Cradle certifies products in many categories based upon its lifecycle criteria, so costs will vary by product type. Many of the products certified by Cradle to Cradle (especially at the Gold and Platinum levels) are highly-differentiated, premium products that generally have a cost premium. <sup>10</sup>
Design for the Environment	LEED, Green Globes	<ul style="list-style-type: none"> <li>Commercial office</li> <li>Retail &amp; hospitality</li> <li>Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>Cleaning products</li> <li>Construction materials (finishes, paints, etc.)</li> </ul>	Increasing demand for green cleaning products and decreasing costs of sustainable raw materials make many DfE products comparable in price to non-certified products. <sup>11</sup> Costs related to air filtration and cleaning may also be reduced through green cleaning. <sup>12</sup>
EcoLogo	Green Globes, LEED (Canada)	<ul style="list-style-type: none"> <li>Commercial office</li> <li>Retail &amp; hospitality</li> <li>Healthcare</li> <li>Utilities</li> </ul>	<ul style="list-style-type: none"> <li>Construction materials</li> <li>HVAC equipment</li> <li>Appliances, computers &amp; electronics</li> <li>Plumbing systems and equipment</li> <li>Paper products</li> <li>Green cleaning products</li> </ul>	Prices will vary by product category.
EcoMark Japan	CASBEE	<ul style="list-style-type: none"> <li>Commercial office</li> <li>Retail &amp; hospitality</li> <li>Healthcare</li> <li>Utilities</li> </ul>	<ul style="list-style-type: none"> <li>Construction materials</li> <li>HVAC equipment</li> <li>Appliances, computers &amp; electronics</li> <li>Plumbing systems and equipment</li> <li>Paper products</li> <li>Green cleaning products</li> </ul>	Costs will vary by product type. For certain wood products (medium density fiber board, insulation board, and particle board), EcoMark products make up a majority of the market for this product (55-74%). <sup>13</sup> Cost differentials premiums are unlikely to be significant in these cases.

<sup>10</sup> For a list of C2C products, see: <http://c2c.mbdc.com/c2c/list.php?order=type>

<sup>11</sup> A full list of DfE certified products is available at: <http://www.epa.gov/dfe/pubs/projects/formulat/formpart.htm>

<sup>12</sup> <http://www.epa.gov/epp/pubs/cleaning.htm>

<sup>13</sup> <http://www.ecomark.jp/english/pdf/Market04.pdf>

ENERGY STAR	LEED, Green Globes, BREEAM, Green Star (NZ), Estidama	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• HVAC equipment</li> <li>• Appliances, computers &amp; electronics</li> </ul>	Varies by product: generally 25-50% increase in product prices for HVAC & appliances; negligible for computer equipment. <sup>14</sup> Most products achieve a 12-24 month payback on the cost premium.
EPA Comprehensive Procurement Guidelines (CPG)	LEED EBOM	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials</li> <li>• Paper products</li> <li>• Green cleaning products</li> </ul>	The CPG program considers the market availability of products with recycled content in its criteria for evaluation. Government agencies are required by the Resource Conservation and Recovery Act (RCRA, 2002) to purchase products with the highest available recycled content. Because this will increase purchasing of these products, prices are likely to be competitive with comparable products. <sup>15</sup>
EU Ecolabel	BREEAM, HQE, DGNB	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> <li>• Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials</li> <li>• HVAC equipment</li> <li>• Appliances, computers &amp; electronics</li> <li>• Plumbing systems and equipment</li> <li>• Paper products</li> <li>• Green cleaning products</li> <li>• Renewable energy</li> </ul>	A 2009 study of Green Public Procurement in the EU, which analyzed differences in procurement costs for certified and non-certified products, shows the most significant savings (using life cycle costing) occur in cleaning products (9% savings) and construction materials (10%). Electricity, IT equipment, and landscaping average a 1-2% increase in cost premiums, while paper products can cost 15-19% more. <sup>16</sup>
Forest Stewardship Council	LEED, BREEAM, HQE, Estidama	<ul style="list-style-type: none"> <li>• Commercial office</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials</li> <li>• Paper products</li> </ul>	Forest Stewardship Council's 2010 Market Study finds that "FSC is typically used as a differentiating tool and some companies do achieve higher prices for their FSC products. Price premiums vary considerably at the various levels in the supply chain." <sup>17</sup>
Green Label Plus	LEED, Green Globes	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials (carpeting, cushions)</li> </ul>	Green Label Plus carpeting and cushion materials generally have a higher price point than similar carpet types and tend to be limited to premium brands. Many manufacturers (such as Interface) will recycle Green Label Plus products, offering potentially lower lifetime costs. <sup>18</sup>
Green Seal	LEED, BREEAM, Green Globes, Green Star, Estidama	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials</li> <li>• HVAC equipment</li> <li>• Appliances, computers &amp; electronics</li> <li>• Plumbing systems and equipment</li> <li>• Paper products</li> <li>• Green cleaning products</li> </ul>	Green Seal's certification is based on life-cycle costing, so products should be comparable in price to peers over their lifetime. Initial costs will vary by product type, but are likely highest for construction materials, appliances, plumbing, and HVAC equipment. <sup>19</sup>

<sup>14</sup> See EPA's Product Savings Calculators, by product category, for more detail: [http://www.energystar.gov/index.cfm?c=products.pr\\_find\\_es\\_products](http://www.energystar.gov/index.cfm?c=products.pr_find_es_products)

<sup>15</sup> <http://www.epa.gov/epawaste/conserve/tools/cpg/faqs.htm>

<sup>16</sup> European Commission, 2009. Collection of statistical information on Green Public Procurement in the EU, p. 61. [http://ec.europa.eu/environment/gpp/pdf/statistical\\_information.pdf](http://ec.europa.eu/environment/gpp/pdf/statistical_information.pdf)

<sup>17</sup> [http://www.fsc.org/fileadmin/web-data/public/document\\_center/publications/Market\\_info\\_and\\_Research/FSC\\_Business\\_value\\_and\\_growth\\_Market\\_Survey\\_2010.pdf](http://www.fsc.org/fileadmin/web-data/public/document_center/publications/Market_info_and_Research/FSC_Business_value_and_growth_Market_Survey_2010.pdf)

<sup>18</sup> <http://www.carpet-rug.org/commercial-customers/green-building-and-the-environment/green-label-plus/green-label-plus-carpet-list.cfm>

<sup>19</sup> SR Inc Analysis. Source: <http://www.green Seal.org/FindGreenSealProductsandServices.aspx?vid=ViewProductDetail&cid=3>



Green-e	LEED, Green Star, Estidama, BREEAM	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Renewable energy</li> </ul>	Renewable energy costs are generally higher than fossil fuel and other non-renewable energy costs, especially when purchasing RECs. The EIA lists prices for renewable sources ranging in average, nationally, from 25-50% more (\$ 0.02-0.05/kWh above an average \$ 0.09/kWh). <sup>20</sup>
GREENGUARD	LEED, Green Globes	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> <li>• Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Cleaning products</li> <li>• Construction materials</li> </ul>	Most low- and no-VOC products will have a slight premium compared with similar products, averaging 20-30% (about \$2/gal for paint, for example). <sup>21</sup> According to the NRDC, "Most companies now produce cost-effective low-VOC replacements." <sup>22</sup>
Rainforest Alliance	n/a	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials</li> <li>• Paper products</li> <li>• Recycled products</li> </ul>	Rainforest Alliance certified products vary greatly depending on the product, but are generally provided at prices comparable to (less than 5% higher than) their peers. <sup>23</sup>
Singapore Green Labeling Scheme (SGLS)	Green Mark, CASBEE	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> <li>• Utilities</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials (cement, brick, tile/ceramics, flooring, sealants)</li> <li>• HVAC equipment</li> <li>• Appliances, computers and electronics</li> <li>• Plumbing systems and equipment</li> <li>• Paper products</li> <li>• Green cleaning products</li> <li>• Renewable energy (solar cells)</li> <li>• Recycled products</li> </ul>	Product costs vary by category, with initial purchasing costs slightly higher than comparable products. Differences are most significant for timber and paper products, and construction materials. <sup>24</sup>
Sustainable Forestry Initiative	Green Globes	<ul style="list-style-type: none"> <li>• Commercial office</li> </ul>	<ul style="list-style-type: none"> <li>• Construction materials</li> <li>• Paper products</li> </ul>	Most SFI products are priced within a 10% or lower premium compared to peers, although prices vary significantly by product type. SFI's market research finds that "A majority [of purchasers] is still likely to buy [an SFI-labeled product] even if it costs up to 10% more." <sup>25</sup>
WaterSense	LEED, Green Globes	<ul style="list-style-type: none"> <li>• Commercial office</li> <li>• Retail &amp; hospitality</li> <li>• Healthcare</li> </ul>	<ul style="list-style-type: none"> <li>• Water equipment</li> <li>• Appliances</li> </ul>	Prices vary by product, although most high-efficiency toilets and fixtures already qualify for WaterSense. EPA estimates that replacing one toilet can save over \$90 in utility (heating and water) costs in a year. <sup>25</sup> Rebates are also available through select municipalities and water authorities. <sup>26</sup>

19 <http://www.eia.gov/totalenergy/data/monthly/index.cfm#renewable>

20 SR Inc Analysis. Source: <http://yosemite1.epa.gov/oppt/eppstand2.nsf/Pages/Search.html?Open>

21 [http://www.nrdc.org/enterprise/greeningadvisor/aq-low\\_voc.asp](http://www.nrdc.org/enterprise/greeningadvisor/aq-low_voc.asp)

22 <http://www.rainforest-alliance.org/agriculture/sourcing>

23 SR Inc Analysis. Source: [http://www.greenlabel.sg/sxls\\_directory](http://www.greenlabel.sg/sxls_directory)

24 [http://www.sfi-program.org/files/pdf/SFI\\_research\\_sheet\\_2010.pdf](http://www.sfi-program.org/files/pdf/SFI_research_sheet_2010.pdf)

25 Find a searchable list at: [http://www.epa.gov/WaterSense/rebate\\_finder\\_saving\\_money\\_water.html](http://www.epa.gov/WaterSense/rebate_finder_saving_money_water.html)

26 Find a searchable list at: [http://www.epa.gov/WaterSense/rebate\\_finder\\_saving\\_money\\_water.html](http://www.epa.gov/WaterSense/rebate_finder_saving_money_water.html)

## Descriptions of Major Labels and Certification Systems

Below are short descriptions of each of the labeling systems mentioned above. For easier comparison, they are grouped by the type of issuing body: either a government agency or a private organization.

### Governmental Label Programs

The first group of programs is issued by government agencies or closely-related bodies, with funding and approval from the national government. These are the most recognized programs because of their wide reach and transparent process for standards development. Many of the well-known US labeling schemes, like ENERGY STAR or Green Seal, are internationally recognized, as many products manufactured for sale in the US are available in international markets.



#### EPA Comprehensive Procurement Guidelines (CPG)

<http://www.epa.gov/epawaste/conserves/tools/cpg/directory.htm>

**Certifying Agency or Body:** U.S. Environmental Protection Agency (EPA)

**Primary Geographic Area(s):** USA

**Number of Certified Products:** Over 5,000

**International Relevance:** Limited to US-based manufacturers

**Relevant Product Categories:** Construction materials; paper products; recycled products

EPA-CPG provides comprehensive guidance and detailed lists of products that are currently available to support the procurement of materials from recycled and repurposed sources. EPA is required to designate products that are or can be made with recovered materials, and to recommend practices for buying these products under the Resource Conservation and Recovery Act (2002). The products listed in EPA's database have been evaluated for their total recycled content (pre- and post-consumer), the potential impact on the waste stream, and their overall performance. Products covered include construction materials, landscaping products, office materials, paper and paper products, transportation and vehicular products, and miscellaneous outdoor products.



#### Design for the Environment (US Environmental Protection Agency)

<http://www.epa.gov/dfe/>

**Certifying Agency or Body:** EPA

**Primary Geographic Area(s):** USA

**Number of Certified Products:** Over 2,700

**International Relevance:** Many products available internationally

**Relevant Product Categories:** Green cleaning products; construction materials (finishes, paints, chemical products only)

For more than 15 years, through partnership projects, EPA's Design for the Environment (DfE) has evaluated human health and environmental impacts associated with traditional and alternative chemicals and processes in a range of industries. More recently, DfE has certified over 2,700 products with its proprietary label to help consumers and procurement teams identify safer and more effective cleaning and chemical products. DfE's certification criteria examine eight dimensions of product performance to guarantee a high-quality and safe product: performance (effectiveness at its designed purpose), pH balance, life-cycle considerations (energy, ozone, etc.), safety labeling, sustainable packaging, VOCs and other air hazards, and flammability. DfE operates as a partnership program with third-party reviewers assessing all products, with oversight and quality assurance by the EPA.



### ENERGY STAR

<http://www.energystar.gov/>

**Certifying Agency or Body:** EPA through partner organizations

**Primary Geographic Area(s):** USA, Canada, New Zealand

**International Relevance:** Yes, many products available internationally

**Number of Certified Products:** Over 40,000

**Relevant Product Categories:** Construction materials (building envelope, insulation); HVAC systems; water equipment (water heaters only); appliances, computers and electronics

The US EPA's ENERGY STAR label is a widely-recognized, multi-attribute label for energy efficient products. Products can earn the ENERGY STAR label by meeting the energy efficiency requirements set forth in ENERGY STAR product specifications. EPA establishes these specifications based on its six guiding principles: 1) the product type has substantial potential to reduce energy consumption nationwide; 2) the product meets the features and performance demanded by consumers; 3) any cost premium for the product can be recovered in utility bill savings within a reasonable timespan; 4) the technologies used to achieve energy efficiency are broadly available and non-proprietary; 5) energy performance can be measured and verified through testing; and 6) the label would effectively differentiate the product for purchasers. Since 1992, ENERGY STAR has labeled products across a broad array of relevant areas, from electronic equipment to building envelope solutions, HVAC systems, and more. Certification is administered by over 20,000 certifying organizations in the US, and through government partners in Canada and New Zealand.



### WaterSense® (US Environmental Protection Agency)

<http://www.epa.gov/watersense/index.html>

**Certifying Agency or Body:** EPA

**Primary Geographic Area(s):** USA

**International Relevance:** Primarily limited to US

**Number of Certified Products:** Over 3,200

**Relevant Product Categories:** Water equipment; appliances (dishwashers, etc.)

WaterSense, a partnership program sponsored by the EPA, seeks to protect the future water supply by offering a simple way to use less water with certified products, new homes, and services. Since 2006, the WaterSense label has helped consumers identify products and programs that meet EPA's criteria for water efficiency and performance. To certify a WaterSense product, manufacturers first sign a partnership agreement with the EPA based on initial product specifications, after which they have 12 months to complete certification through an outside body. Criteria for specification vary by product type, but WaterSense currently certifies five products—tank-type toilets, lavatory faucets, flushing urinals, showerheads, and water-based irrigation controllers—in addition to new homes and irrigation professionals. WaterSense is currently only administered in the US.



### EcoMark (Japan Environment Association)

<http://www.ecomark.jp/english/index.html>

**Certifying Agency or Body:** Japan Environment Association

**Primary Geographic Area(s):** Japan

**International Relevance:** Japan only

**Number of Certified Products:** Over 5,000

**Relevant Product Categories:** Construction materials; HVAC equipment; appliances, computers and electronics; plumbing systems and equipment; paper products; green cleaning products

The EcoMark program is designed to promote environmentally-benign purchasing. A committee composed of academics, governments, consumer groups, and experts from various industries sets standards and carries out the certification. Since 1989, EcoMark certification has been awarded to products with a lower life-cycle environmental impact than their peer products, based on criteria specific to each type of product. After screening products submitted for approval by manufacturers, the JEA certifies and publicizes products qualifying for the EcoMark. It is important to note that EcoMark is not intended to certify product quality and safety.



### EU Ecolabel

[http://ec.europa.eu/environment/ecolabel/index\\_en.htm](http://ec.europa.eu/environment/ecolabel/index_en.htm)

**Certifying Agency or Body:** European Commission, Environment Group

**Primary Geographic Area(s):** European Union countries

**International Relevance:** EU-only

**Number of Certified Products:** Over 1,200

**Relevant Product Categories:** Construction materials; HVAC equipment; appliances, computers and electronics; plumbing systems and equipment; paper products; green cleaning products; renewable energy

The European Union's Ecolabel is a voluntary labeling program, established in 1992, designed to identify and recognize products that have the lowest environmental impact. Product groups that can currently receive the Ecolabel's logo include cleaning products, appliances, paper products, textile and home and garden products, lubricants and services such as tourist accommodation. Ecolabel can also be granted to procurement processes. Criteria are specific to each product category, and are stringently researched and enforced in partnership with third-party verification bodies.



### Singapore Green Labeling Scheme

<http://www.greenlabel.sg/>

**Certifying Agency or Body:** Singapore Environment Council

**Primary Geographic Area(s):** Singapore, Southeast Asia

**International Relevance:** Limited to Southeast Asia, but likely to expand.

**Number of Certified Products:** Over 5,000

**Relevant Product Categories:** Construction materials; HVAC equipment; appliances, computers and electronics; plumbing systems and equipment; paper products; green cleaning products; renewable energy (solar cells); recycled products

Launched in 1992 by the Singapore Ministry of the Environment and administered by the Singapore Environment Council (SEC) since 1999, Singapore Green Labeling Scheme (SGLS) is Singapore's leading environmental certification mark. The SGLS has developed stringent standards for most product categories—except food, drinks and pharmaceuticals—granting the well-known Green Leaf logo to these products. Criteria for certification vary by product type and are reviewed by SEC once 100% of applicable criteria are met and independent product testing has verified performance. In 2012 the SGLS was certified by the Global Ecolabelling Network (GEN) for use internationally, growing its certification role to Malaysia, Indonesia, Vietnam, Cambodia and Laos.

## Private Labeling Programs

The following programs are issued by private organizations, usually not-for-profits without a direct governmental relationship. These programs are more likely to be internationally-recognized because of their status as private organizations and their expanded scope of products.



### Cradle to Cradle

<http://www.c2ccertified.org/>

**Certifying Agency or Body:** Cradle to Cradle Products Innovation Institute (non-profit organization)

**Primary Geographic Area(s):** European Union, Canada, USA

**International Relevance:** Many products available globally

**Number of Certified Products:** Over 1,000

**Relevant Product Categories:** Construction materials; HVAC equipment; appliances, computers and electronics; plumbing systems and equipment; paper products; green cleaning products; recycled products

Cradle to Cradle Certification<sup>CM</sup> is a labeling scheme based upon William McDonough's Cradle to Cradle framework for industrial design. As such, products certified under this scheme are designed to reduce waste and limit the life-cycle impact of a product through strategies in the design phase, aiming toward products that generate zero waste or are fully recyclable. Cradle to Cradle Certification considers five product dimensions—material health (raw material and pollutant impacts), material reutilization, renewable energy use, water stewardship, and social responsibility—to grant Basic, Silver, Gold or Platinum level certification. Cradle to Cradle<sup>®</sup> is licensed to the Products Innovation Institute by McDonough Braungard Design Chemistry (MBDC) -- which develops the standards -- to ensure impartial decision-making.



### EcoLogo™ Program

<http://www.ecologo.org/en/>

**Certifying Agency or Body:** TerraChoice Environmental Marketing

**Primary Geographic Area(s):** Canada

**International Relevance:** Canada only

**Number of Certified Products:** Over 5,000

**Relevant Product Categories:** Construction materials; HVAC equipment; appliances, computers and electronics; plumbing systems and equipment; paper products; green cleaning products

EcoLogo, Canada's most respected labeling program, is designed to recognize the top 20% of products on the market with regard to environmental performance. EcoLogo standards are developed through a public, transparent pro-

cess over 12-18 months, and are designed to address the life-cycle impact of a product as well as its performance in comparison to other product types. Certifications are issued by third-party partners who audit, assess, and review each product to ensure that it meets the stringent criteria. EcoLogo is a founding member of the Global Ecolabeling Network (GEN), granting it legitimacy beyond Canadian boundaries.



### Forest Stewardship Council® (FSC) Chain of Custody Certification

<http://info.fsc.org/>

**Certifying Agency or Body:** Forest Stewardship Council (non-profit)

**Primary Geographic Area(s):** Global

**International Relevance:** FSC-certified products will vary by region, but should be available globally

**Number of Certified Products:** Over 4,000

**Relevant Product Categories:** Construction materials (timber, furniture); paper products

The Forest Stewardship Council (FSC), an independent not for profit, promotes environmentally appropriate, socially beneficial, and economically viable management of the world's forests. Forest managers or owners can receive voluntary FSC Certification in recognition of careful and long-term forest management for social, economic and environmental benefit. To sell material from an FSC certified forest with the FSC logo, a forest manager must also achieve FSC Chain of Custody Certification, which tracks certified material through the entire production process. Chain of custody certification is available for any product originating in an FSC Certified Forest, including paper products, timber, and furniture. Nearly 150 million hectares of forest area are certified by FSC worldwide.



### Green-e

<http://www.green-e.org/>

**Certifying Agency or Body:** Center for Resource Solutions (non-profit)

**Primary Geographic Area(s):** USA

**International Relevance:** Currently limited to the generation sites in the US.

**Number of Certified Products:** Over 100

**Relevant Product Categories:** Renewable energy

Green-e, administered by the Center for Resource Solutions (CRS), is a national standard in the US designed to certify renewable energy and carbon (GHG) offset programs, from source production to credits (including RECs), utility pricing programs and more. Its standards are stakeholder-driven and highly-rigorous, designed to ensure that products meet federal requirements for renewable energy and to protect consumers from illegitimate products. Green-e is currently in version 2.1, with updates occurring continually as federal standards and consumer needs change.



### GREENGUARD Indoor Air Quality Certification

<http://www.greenguard.org/en/index.aspx>

**Certifying Agency or Body:** The GREENGUARD Environmental Institute (non-profit)

**Primary Geographic Area(s):** USA

**International Relevance:** Many products available globally.

**Number of Certified Products:** Over 1,000

**Relevant Product Categories:** Cleaning products; construction materials (paints, finishes, etc.); landscaping

GREENGUARD certifies that products meet stringent standards for low VOC and other emissions to ensure a positive impact on indoor air quality. Product standards permit certification of a wide range of products across numerous industries, including cleaning products, finishes, construction materials (e.g. insulation, windows), and landscaping products. To receive certification, products are tested in dynamic environmental chambers, and emission levels are modeled by scientific calculation to determine what a building occupant would actually breathe. Test results must meet ANSI/ASHRAE Standard 62.1-2007, Ventilation for Acceptable Indoor Air Quality, or EPA's National Ambient Air Quality Standards (NAAQS) to qualify.



### Green Label Plus

<http://www.carpet-rug.org/commercial-customers/green-building-and-the-environment/green-label-plus/>

**Certifying Agency or Body:** The Carpet and Rug Institute (non-profit manufacturer consortium)

**Primary Geographic Area(s):** USA

**International Relevance:** Many products available globally

**Number of Certified Products:** Over 500

**Relevant Product Categories:** Construction materials (carpeting and fabric materials)

In 1992, the Carpet and Rug Institute (CRI), a consortium of manufacturers seeking to reduce the environmental impact of their products, launched the Green Label program to test carpet, cushions and adhesives to identify products with very low VOC emissions. CRI recently launched a series of improvements called Green Label Plus for carpet and adhesives. This enhanced program sets an even higher standard for indoor air quality (IAQ) to ensure that products are among the lowest-emitting materials on the market. Using scientifically established standards, certified products are evaluated against 76 compounds listed by the State of California's Standard 01350, with annual testing for emissions of 7 of the most harmful of those chemicals. As an ANSI-certified and manufacturer-driven system, Green Label Plus is the premiere certification standard for manufacturers of carpet and flooring adhesives in the US.





### Green Seal

<http://www.greenseal.org/FindGreenSealProductsAndServices.aspx>

**Certifying Agency or Body:** Green Seal (non-profit organization)

**Primary Geographic Area(s):** USA

**International Relevance:** Many products available globally

**Number of Certified Products:** Over 5,000

**Relevant Product Categories:** Construction materials; HVAC equipment; appliances, computers and electronics; plumbing systems and equipment; paper products; green cleaning products

An independent non-profit founded in 1989, Green Seal certifies products and services that meet its science-based and transparent environmental standards. Green Seal utilizes a life-cycle approach and stakeholder consultation process to ensure tangible reductions in environmental impacts. Products earn Green Seal certification after a rigorous evaluation process by Green Seal-certified professionals with specific knowledge of each of 16 product categories. Green Seal has developed over 45 standards for specific types of products, with new standards currently under development. Green Seal is certified by Global Eco-labelling Network for use internationally.



### Rainforest Alliance Certification

<http://www.rainforest-alliance.org/green-living/office>

**Certifying Agency or Body:** Sustainable Agriculture Network

**Primary Geographic Area(s):** Global

**Number of Certified Products:** Over 1,000

**International Relevance:** Many products available globally

**Relevant Product Categories:** Construction materials (timber, furniture, landscaping); paper products; recycled products

Rainforest Alliance certification is designed to certify sustainable agricultural practices for farm-based products, which are based on the standards of the Sustainable Agriculture Network. These standards certify performance on 10 measures for sustainable farming, including the management system, ecosystem conservation, wildlife protection, water conservation, waste management, and community and worker relations. Rainforest Alliance's label is affixed to products sourced from farms that meet these standards, which are listed in its online Rainforest Alliance Marketplace. Most of these products are food items, including coffee and fruit products, and certification is often granted in partnership with FSC chain-of-custody certification to paper, packaging, and furniture products. Rainforest Alliance also certifies certain plants for landscaping and interior use, as well as recycling programs.



## Sustainable Forestry Initiative (SFI) Chain-of-Custody & Certified Sourcing Certification

<http://www.sfiprogram.org/index.php>

**Certifying Agency or Body:** Sustainable Forestry Initiative (non-profit organization)

**Primary Geographic Area(s):** USA, Canada

**International Relevance:** SFI-certified products will vary by region, but should be available globally

**Number of Certified Products:** Over 800

**Relevant Product Categories:** Construction materials (timber, furniture); paper products

The SFI certification program, which is a not-for-profit established by the north American forestry industry, certifies forests and forest-based products through four major components: SFI forest certification, which promotes responsible forestry practices; SFI chain-of-custody certification, an accounting system that tracks fiber content through production and manufacturing to the end product; SFI certified sourcing, which certifies that raw material in the supply chain comes from legal and responsible sources, whether the forests are certified or not; and the SFI labels, recognized globally as a visual cue to help customers source responsibly managed forest products. SFI is a self-reported standard for chain-of-custody and certified sourcing, with manufacturers required to provide documentation that an average percentage or minimum volume of product fiber comes from a sustainable source, with verification by a third-party audit. SFI is primarily North America-based, with 228 million hectares of certified forests.

## Recommendations

Below is an overview of common barriers and solutions to purchasing labeled products, as well as a list of the most relevant sources and tools for information on labels, more sustainable products, and procurement decisions.

### Barriers & Solutions

Common barriers and solutions to pursuing green product labels are listed in Table 3.

Table 3. Barriers and solutions to purchasing labeled products

Barrier	Recommended Solution
Confusion about the relevance and meaning of labels: <ul style="list-style-type: none"> <li>• Overlapping labeling systems</li> <li>• Self-labeling by vendors</li> </ul>	<ul style="list-style-type: none"> <li>• Review resources such as the Eco-Label Index to ensure that any label meets ISO, ANSI, or other standards.</li> <li>• Check Greenwashing Index for review of vendor claims, or ask if vendor is pursuing certification under a well-known system.</li> </ul>
Lack of stakeholder (investor, tenant, employee, etc.) awareness	<ul style="list-style-type: none"> <li>• Regularly report and publicize the use of eco-labeled products and provide descriptions of what each label means.</li> <li>• Focus on using the most well-known schemes to ensure stakeholder recognition.</li> </ul>
"Green washing" or misrepresentation of sustainable attributes	<ul style="list-style-type: none"> <li>• Check Greenwashing Index and Consumer Reports' Greener Choices site to verify the reliability of a label.</li> <li>• Check with the labeling organization to determine whether the label meets ISO or other standards.</li> <li>• For labels used in multiple countries, check if a label is listed with the Global Ecolabelling Network.</li> </ul>
Cost premium for green-labeled products	<ul style="list-style-type: none"> <li>• Consider the life-cycle costs of a product to determine whether energy, water, air conditioning, and other savings might justify the purchase of a labeled product.</li> <li>• Use publicly-available calculators (such as EPA's ENERGY STAR Savings Calculators, listed below) to see how much a product can save over a given time.</li> <li>• Only pursue labeled products if required ROIs are met, and consider that manufacturers might simply be imposing a marketing premium based on labeling.</li> </ul>

**Resources and Tools** The resources and tools below, listed alphabetically by type, are available to RE executives and procurement teams seeking further guidance and information on choosing a labeled product and sourcing more sustainable materials.

### **Eco-Label Lists and Product Databases**

#### **Eco-Label Index:**

Provides a comprehensive listing of over 461 existing green certification and labeling schemes available internationally, with short descriptions of each label and its certifying body, and listing of applicable third-party verification (ISO, ANSI, etc.). Monthly subscriptions (CAD \$99-\$149/month) provide more detailed information and data on trustworthiness and value of each label.

<http://www.ecolabelindex.com/ecolabels/>

#### **EPA Environmentally Preferable Purchasing (EPP) Database:**

Database developed by the EPA to guide Federal purchasing decisions, with information on sustainable products grouped by product type. Guidance within each product type includes sample contract language and policies for procurement processes, lists of the relevant standards (labels) for each product, and a comprehensive listing of certified products.

<http://yosemite1.epa.gov/oppt/epstand2.nsf/Pages/Search.html?Open>

#### **Global Ecolabelling Network:**

"The Global Ecolabelling Network (GEN) is a non-profit association of third-party, environmental performance recognition, certification and labeling organizations founded in 1994 to improve, promote, and develop the 'ecolabeling' of products and services." Site includes a listing of internationally-relevant labeling systems, as certified by the network, and guidance on finding a label by country and product category.

<http://www.globalecolabelling.net/>

## Evaluation of Labels and Marketing Claims

### EnviroMedia Social Marketing's Greenwashing Index:

A searchable index of advertising claims and environmental product or company certifications that solicits user feedback and evaluations to verify the accuracy of a claim. Provides detailed feedback on each of the labeling systems mentioned above.

<http://www.greenwashingindex.com/>

### Federal Trade Commission (FTC) Guides for the Use of Environmental Marketing Claims:

These guides specifically address the application of Section 5 of the FTC Act to environmental advertising and marketing practices. They provide the basis for voluntary compliance with such laws by members of industry, and detail penalties for failure to comply with the FTC Act.

<http://www.ftc.gov/bcp/grnrule/guides980427.htm>

### Consumer Reports Greener Choices:

Searchable database of existing labels (third-party and self-certified) by product type, label category, and certifying organization. Each description provides an overview of Consumer Reports' stringent, scientific evaluation of labels on food, wood, personal care products and household cleaners.

<http://www.greenerchoices.org/eco-labels/>

## Procurement and Purchasing Guidance and Networks

### EcoLogo™ Purchasers Toolkit:

The features of the EcoLogo Purchasers' Toolbox allow users to find EcoLogo-certified products and develop a sustainable procurement process. The site is updated regularly to keep users informed of new additions to the EcoBuyer Green Products Database and give them the ability to build their own EcoPicks lists.

<http://www.ecologo.org/en/purchaserstoolbox/>

### EPA ENERGY STAR Savings Calculators:

The EPA has developed a number of calculators for most of the ENERGY STAR product categories to provide a simple picture of the life-cycle cost of ENERGY STAR products compared to non-certified products. Calculators can be accessed under each product description, in the rightmost column, by accessing the web page:

[http://www.energystar.gov/index.cfm?c=products.pr\\_find\\_es\\_products](http://www.energystar.gov/index.cfm?c=products.pr_find_es_products)

**US GSA's Green Products Compilation:**

The US General Services Administration (an SBER Member-Client) worked with EPA, the USDA, and other federal agencies to compile a valuable list of products and services available to business and governmental purchasers. The listing is especially tailored to office uses, with products searchable by name or by category (including construction materials, cleaning products, electronic equipment, etc.). The Green Products Compilation is part of GSA's larger Sustainable Facilities Tool (SFTool).

<http://www.sftool.gov/greenprocurement>

**National Association of Counties (NACo) Green Purchasing Toolkit:**

Developed in partnership with the Responsible Purchasing Network, Green Seal, and US Communities, NACo's 2011 Green Purchasing Toolkit includes guidance on finding eco-labels and eco-labeled products, as well as guidance on reforming the procurement process. The toolkit is designed for county government officials, but has valuable information relevant to many users.

<http://www.uscounties.org/GreenPurchasing/index.html>

**National Resource Defense Council (NRDC) Guidance on Labels:**

Comprehensive series of guides sourced from NRDC's network of researchers and scientists that describes leading labels and standards by product type. Also links to guidance and case studies to make more sustainable operating and procurement decisions.

<http://www.nrdc.org/business/standards/default.asp>

**Responsible Purchasing Network:**

Responsible Purchasing Network (RPN)'s membership program and consulting services provide institutional purchasers with procurement tools and resources designed to save money, conserve resources, reduce waste, and improve efficiency. Website includes guidance (including webinars) on the leading eco-labeling schemes, listings of environmentally preferable products, and a series of product-type guides and model documents to support procurement teams. Registration and access are free.

<http://www.responsiblepurchasing.org/publications/index.php>

One Broadway, 14th Floor  
Cambridge, MA 02142  
617.682.3632  
[www.sustainround.com](http://www.sustainround.com)

Members should contact SR Inc with any questions or comments. Members who have best practices that they would wish to share with others are encouraged to do so for inclusion in future updates of this briefing.