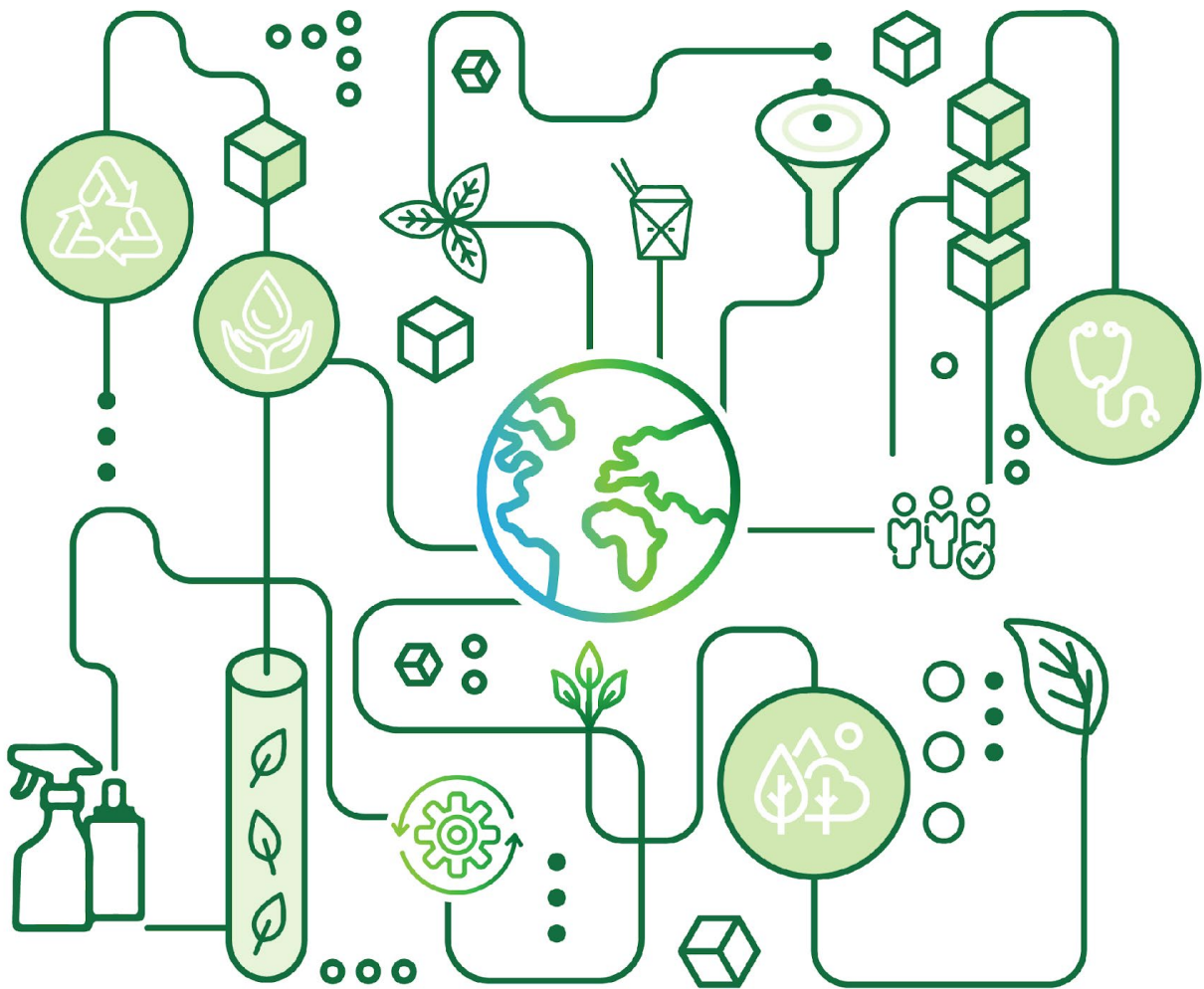




Environmental Innovation Program Manual





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1. INTRODUCTION

Green Seal develops voluntary standards to transform the economy for a healthier and greener world. Green Seal has three types of leadership standards: product category standards, service standards, and the Environmental Innovation Standard.

The Environmental Innovation Standard, which is not specific to a product category, and a product-specific *criteria document* are the basis of certification for Environmental Innovation, which rewards products that apply unique solutions to critical environmental issues.

This manual defines Green Seal's principles and procedures for implementing the Environmental Innovation program. Adherence to the principles and procedures defined in this manual is essential to protect and enhance the integrity, authority, and value of Green Seal's certification of environmental innovation. To learn about the development and maintenance of Green Seal standards, see the [Green Seal Standards Manual](#).

Environmental Innovation Standard

The Environmental Innovation Standard (GS-20, Edition 2.1) requires that first-to-market environmental innovations demonstrate a 30% reduction of one significant environmental or human health impact, or a 20% reduction of two or more significant environmental or human health impacts, based on a *life-cycle impact* review. The standard also sets baseline requirements for ingredients known to be hazardous to human health and the environment, requirements for packaging materials, and requirements for verification of products' functional performance. The development and maintenance of the standard are governed by the [Green Seal Standards Manual](#).

Criteria Documents

A criteria document supplements the Environmental Innovation Standard and completes the framework under which certification can be achieved. It identifies the significant life-cycle impacts for a given product category and details the methods used to verify a specific product's claim. The criteria document also defines how the product must meet Green Seal's foundational health and environmental criteria, as detailed in the GS-20 standard. Products certified to a published criteria document have innovative aspects, not previously demonstrated in the product category, that significantly reduce life-cycle impacts compared with products of the same functional class. A criteria document is more limited in scope than Green Seal's product category standards; it is not intended or designed to define sustainability leadership for a product category or industry.

Note: Terms that are italicized on their first mention in this manual have meanings specific to Green Seal; refer to the definitions in Appendix I. References to GS-20 refer to the current edition of the standard unless otherwise specified.



2. PROGRAM PRINCIPLES

Green Seal is committed to implementing the Environmental Innovation program based on international best practices, conducted within an accountability framework that adheres to the following four principles.

Principle 1. Technical Excellence

Green Seal’s mission is to transform the economy for a healthier, greener world. To this end, the objective of Green Seal’s Environmental Innovation program is to certify environmentally innovative products that significantly reduce life-cycle impacts for their product category. Certification is based on published life-cycle data and methodology that quantify a given innovation claim. Green Seal strives for consistency, predictability, measurable results, and a systems approach to health and environmental impact reduction opportunities.

Principle 2. Transparency

Green Seal’s criteria documents establish requirements to credibly validate an environmental innovation claim. To be transparent, Green Seal provides free access to criteria documents, criteria development procedures, and documentation of major decisions that shaped the development and maintenance of criteria documents. Through transparency, Green Seal can be held accountable to *stakeholders* who can confirm that Green Seal executes an open process and implements credible, evidence-based decision-making.

Principle 3. Openness

Green Seal facilitates the development of criteria documents in an open process. Members of any *interest category* are encouraged to comment on proposed criteria by submitting questions, formal comments, and market or technical information. Green Seal works to achieve an open process by promoting opportunities to comment on proposed criteria and clearly defining the process for participating.

Principle 4. Substantial Agreement

Green Seal aims to take into account the views of all interest categories and to achieve *substantial agreement* by reconciling conflicting arguments through its criteria development process. Green Seal seeks to encourage and achieve balanced stakeholder participation. Green Seal uses good-faith efforts to attain explicit support from a significant majority of participants, or at minimum, to attain the absence of sustained opposition to substantive issues.

3. PROGRAM PROCEDURES

To ensure that Green Seal’s program principles (Section 2, above) are met, the following procedures are implemented for each product in the Environmental Innovation program.



3.1 Eligibility

Green Seal conducts an eligibility review before inviting an interested party to apply for certification. Prospective participants must provide documentation to demonstrate that they meet the following eligibility requirements:

- The product is commercially available.
- The product has comparable alternatives in the market.
- The product is in compliance with all relevant regulations of the U.S. Environmental Protection Agency, U.S. Food and Drug Administration, and U.S. Federal Trade Commission or equivalent international agencies.
- The product contains innovations resulting in significant life-cycle impact reductions (e.g., climate, water, toxics, circularity).
- There exists published science on life-cycle impacts in the product category.
- A product that is in scope for an existing Green Seal standard must first be certified under the requirements for that standard before attempting certification under GS-20, unless Green Seal determines the product innovation demonstrates impact reduction above the applicable standard and is the first of its kind in the North American market.

Exclusions: This standard does not cover services, processes, proofs of concept, or products for which there is insufficient technical, life-cycle, or market information.

3.2 Discovery

After submitting an application for certification, participants provide full disclosure of their product’s composition or formulation to Green Seal. Green Seal then conducts a discovery review, evaluating the product against Green Seal’s foundational criteria (defined in GS-20, Section 5.0, Human Health and Environmental Requirements) and conducting a preliminary market review of comparable alternatives. This review informs the innovation criteria development by screening for chemical hazards prior to further research on the validity of the innovation claim. At the end of the discovery review, Green Seal posts notice in the [Environmental Innovation Registry](#) that criteria development is underway for a specified innovation claim.

3.3 Innovation Criteria Document Development

The next step, the process of developing a criteria document for environmental innovation, consists of three stages.



Claim Substantiation via Market and Technical Research

The participant provides the following information to Green Seal:

- Innovation statement that describes how the product differs from other products on the market, and clearly defines the environmental innovation of the product.
- Impact reduction statement that clearly describes how the environmental innovation results in a reduction of the significant environmental and human health impacts compared to products of the same function.
- Market analysis that compares the applicant product and environmental innovation to the nationally recognized or market-leading products of the same functional class, including evidence that the applicant's product is the first sold on the North American market to claim this environmental innovation.

Green Seal then conducts further market and technical research as needed, summaries of which are included in the criteria document as the technical basis (or substantiation) of an innovation claim. Green Seal summarizes all possible, anticipated, or known environmental and health impacts for each phase in a product's life-cycle (from raw material acquisition to production, use, end-of-life, and disposal), in alignment with ISO 14024 Standard for Environmental Labels and Declarations—Type I Environmental Labelling—Principles and Procedures (2018).

Green Seal bases its criteria development procedures for innovation claim validation on the internationally recognized best practices described in ISO 14021 Standard for Environmental Labels and Declarations—Self-Declared Environmental Claims—Type II Environmental Labelling (2016). Green Seal serves as a third-party verifier of self-declared environmental claims, as described in ISO 14021. By requiring a product to undergo screening against Green Seal's foundational criteria in addition to claim validation, the Green Seal Environmental Innovation program also provides supply chain transparency via ingredient hazard review, implemented according to the technical approach defined in ISO 14024.

Research summaries may include the following life-cycle information:

- product and system inputs.
- literature reviews of life-cycle studies and determinations of significant life-cycle impacts.
- comparable product claims.
- product category environmental attribute baselines relevant to the innovation claim, as determined by comparable product claims and/or industry data.
- evaluation methodology.

Burden-Shift Assessment

The results of the discovery review (Section 3.2, above) may identify cases of “burden shifting” — that is, a shift of negative impacts from one life-cycle phase to another. Following ISO 14021, Green Seal seeks to verify that the environmental innovation has an overall net positive effect. If a product does not meet all foundational requirements, an exemption may be appropriate. The applicant provides the necessary data to Green Seal to determine and document justification for exemptions; a detailed justification of the exemption is then included in the criteria document.

Evaluation Determination and Verification Method Selection

Green Seal develops criteria in alignment with ISO 14021, whose introduction reads,

In self-declared environmental claims, the assurance of reliability is essential. It is important that verification is properly conducted to avoid negative market effects such as trade barriers or unfair competition, which can arise from unreliable and deceptive environmental claims. The



evaluation methodology used by those who make environmental claims should be clear, transparent, scientifically sound and documented so that those who purchase or may potentially purchase products can be ensured of the validity of the claims.

In the evaluation, Green Seal applies certain requirements of ISO 14021, excerpted below.

Reliability of evaluation methodology (ISO 14021, Section 6.2)

6.2.1 Prior to making the claim, evaluation measures shall be implemented to achieve reliable and reproducible results necessary to verify the claim.

Evaluation of comparative claims (ISO 14021, Section 6.3)

The comparison shall only be made:

- using a published standard or recognized test method (as set out in 6.4); and
- against comparable products serving similar functions, supplied by the same or another producer, currently or recently in the same marketplace.

Selection of methods (ISO 14021, Section 6.4)

Methods for evaluation and claim verification shall follow, in order of preference, International Standards, recognized standards that have international acceptability (these may include regional or national standards) or industry or trade methods which have been subjected to peer review. If there are no methods already in existence, a claimant may develop a method, provided it meets the other requirements of [Clause 6](#) and is available for peer review.

Access to information (ISO 14021, Section 6.5)

6.5.1 A self-declared environmental claim shall only be considered verifiable if such verification can be made without access to confidential business information. Claims shall not be made if they can only be verified by confidential business information.

6.5.2 The claimant may voluntarily release to the public the information necessary for verification of an environmental claim. If not, the information necessary to verify the claim shall be disclosed, upon request, at a reasonable cost (to cover administration), time and place, to any person seeking to verify the claim.

6.5.3 The minimum information required to be documented and retained in accordance with [6.2](#) shall include the following:

- a) identification of the standard or method used;
- b) documentary evidence, if verification of the claim cannot be made by testing the finished product;
- c) test results, where these are necessary for claim verification;
- d) if testing is carried out by an independent party, the name and address of the independent party;
- e) evidence that the claim conforms with the requirements of [5.7 h](#)) and [5.7 r](#));
- f) if the self-declared environmental claim involves a comparison with other products, then a description of the method used, the results of any tests of those products, and any assumptions made shall be clearly stated; NOTE Further requirements for comparative claims are set out in [5.7](#).
- g) evidence that the claimant's evaluation gives assurance of the continuing accuracy of the self-declared environmental claim during the period over which the product is on the market, and for a reasonable period thereafter, taking into account the life of the product.



3.4 Public Comment and Stakeholder Consultation

Green Seal opens a *public comment period* to solicit feedback on a *public comment version* of the criteria document for 30 calendar days. Green Seal prioritizes comments that adhere to the following guidelines:

- The comments are specific.
- The comments include technical and/or market-focused justifications.
- The comments reference reputable sources.
- If negative, the comments suggest improvements.

Comments should be submitted electronically. Comments submitted in other ways are not assured of being included for consideration. Comments that address issues outside the defined scope may not be included in a public record of the criteria document.

Requests for extensions to the comment period will be considered and granted at Green Seal's discretion. Extensions will be scheduled for no fewer than 15 calendar days.

If comments received during the first public comment period result in changes to the criteria document, Green Seal engages stakeholders in a second public comment period of 15 days to ensure that all comments have been adequately addressed.

Through the public comment process, Green Seal aims to take into account the views of all interest categories and seeks to achieve substantial agreement by reconciling conflicting arguments as best as possible.

If substantial agreement cannot be reached after a second public comment round, Green Seal may, at its discretion, *withdraw* the proposed criteria document.

3.5 Comment Review and Response to Comments

Green Seal reviews comments submitted in accordance with the requirements established in Section 3.4 (above) and takes one of the following actions:

- *Accept the comment.* The comment will affect the criteria document.
- *Accept the comment in part.* A portion of the comment will affect the criteria document.
- *Acknowledge the comment.* The information provided was noted by Green Seal but did not affect the criteria document.

The determinations and effects are documented in a *response to comments* document, which is published concurrently with the criteria document.

3.6 Publication of Criteria Documents

A criteria document is published once substantial agreement is achieved. Green Seal publishes criteria development documentation concurrently with the published criteria document. Upon its publication, Green Seal indicates in the Environmental Registry that the *certification evaluation* of the innovative product can commence.



3.7 Complaint Resolution

Green Seal provides a process for *complaint resolution*, a transparent mechanism by which stakeholders can submit for consideration a procedural complaint regarding published criteria or a standard. Refer to Section 5 of the [Green Seal Standards Manual](#) for the complaint resolution process.

3.8 Certification Evaluation

Once a criteria document is published, the applicant is invited to begin the certification evaluation. Green Seal's certification evaluation process is outlined on the GS Certification webpage. The evaluation is conducted following international best practices as defined in ISO 14024.

Unlike single-attribute claim validation programs, Green Seal's Environmental Innovation program incorporates certain aspects of ISO Type I ecolabels—specifically, a requirement that products be screened against established health and environmentally protective criteria (GS-20, Section 5.0). Product screening is critical for identifying cases of burden shifting, the transfer of negative impacts from one life-cycle phase to another. Green Seal's intention is to verify, as required by ISO 14024, that the environmental innovation achieves an overall net positive effect.

ISO 14024 Clauses Relevant to GS Environmental Innovation Standard

For the credible implementation of the Environmental Innovation program, Green Seal aligns with the following ISO requirements for Type I ecolabels.

Life-cycle consideration (ISO 14024, Section 5.4)

The objective of reducing environmental impacts and not merely transferring impacts across media or stages of the product life-cycle is best served by considering the whole product life-cycle when setting product environmental criteria.

Life-cycle stages to be taken into account when developing the product environmental criteria should include extraction of resources, manufacturing, distribution, use and disposal relating to relevant cross-media environmental indicators. Any departure from this comprehensive approach or selective use of restricted environmental issues shall be justified.

Life-cycle considerations (ISO 14024, Section 5.6.1)

The product environmental criteria shall be based on indicators arising from life-cycle considerations (see 6.4)

Product function characteristics (ISO 14024, Section 5.7)

In developing the criteria, the fitness for purpose of the product and the levels of performance shall be taken into account. International, regional or national standards for the product should be considered for use in the programme, according to the hierarchy for use of standards set out in ISO 14020.

ISO 14024 Clauses beyond Scope of GS Environmental Innovation Standard

The Green Seal Environmental Innovation program differs in its objective and procedures from product category standards. Specifically, the following requirements of ISO 14024 are *not* implemented in this program.



Basis of criteria (ISO 14024, Section 5.6.2)

The product environmental criteria should be set at attainable levels and should give consideration to relative environmental impacts, measurement capability and accuracy.

Consultation with interested parties (ISO 14024, Section 6.2)

The ecolabelling body shall implement a formal consultation mechanism that facilitates full participation of interested parties. Such a mechanism could include the use of selected groups of interested parties' representatives, e.g. consultation board, advisory committee or public hearing.

Consultation is an on-going process that occurs in the selection of the product category, and in the establishment of product environmental criteria and product function characteristics. Interested parties shall be given adequate time and access to details and sources of information used. The consultation process shall also ensure that interested parties that comment on the programme receive proper consideration of, and response to, their comments. Reasonable efforts should be made to achieve consensus throughout the process.



4. RECERTIFICATION AND WITHDRAWAL

4.1 Recertification

Green Seal requires Environmental Innovation–certified products to undergo recertification every four years. The recertification process includes a review of the published criteria document, following the procedures outlined in Sections 3.2 through 3.8. Participants will be evaluated against the current edition of GS-20.

4.2 Withdrawal of Criteria Documents

Green Seal will withdraw a published criteria document in response to one or more developments:

- The innovation and associated criteria no longer meet the requirements in Green Seal’s Environmental Innovation Standard (GS-20).
- The innovative product is no longer being manufactured or is no longer widely available on the North American market.

A *withdrawal* notice will be published for 30 calendar days and Green Seal will alert stakeholders to the withdrawal.

Once a criteria document is withdrawn, Green Seal will no longer offer certification for the related innovation.



APPENDIX I. DEFINITIONS

certification evaluation the steps Green Seal takes to formally evaluate a product against a specific criteria document and the Environmental Innovation Standard (GS-20) to verify conformity

complaint resolution the opportunity for any stakeholder adversely affected by actions or inactions inconsistent with the criteria document development processes outlined in this document to have an objection heard and considered. Complaint resolution is a mechanism for ensuring due process and, therefore, transparency and accountability.

criteria document the supplemental document used in conjunction with Green Seal's Environmental Innovation Standard (GS-20) to transparently communicate what have been identified as life-cycle impacts for a given product category and the specific methodology used to verify a given claim and ensure the applicant meets the requirements in GS-20 A criteria document is more limited in scope than Green Seal's product category standards; it is not intended or designed to define sustainability leadership for a product category or industry.

interest category a group of stakeholders with particular interest in a criteria document. Green Seal has three interest categories: producers, users, and general interest.

life-cycle impact an environmental and/or health effect associated with raw material extraction, manufacturing, transportation, use, end-of-life, and disposal, in alignment with the guiding principles specified in ISO 14024

public comment period an opportunity for stakeholders to submit feedback on the proposed criteria document.

public comment version a draft version of a Green Seal criteria document that is ready to be released to the public for review and input. The public comment version of a Green Seal criteria document is posted for at least one public comment period.

response to comments a public report published by Green Seal that summarizes comments, quotes comments, and defines actions taken in response to comments submitted during the public comment period

stakeholder an individual or group that has a direct or indirect interest in Green Seal's standards and/or activities (ISEAL Standard-Setting Code, 2014)

substantial agreement support from approximately two-thirds of participating stakeholders or, at minimum, the absence of sustained opposition to substantive issues (ISEAL Standard-Setting Code, 2014)

withdrawal discontinuation of a Green Seal criteria document



APPENDIX II. REFERENCED STANDARDS

<i>Standard</i>	<i>Description</i>
ISO 14021 Environmental Labels and Declarations—Self-Declared Environmental Claims—Type II Environmental Labelling, Second edition 2016-03-15	This standard specifies requirements for self-declared environmental claims, including statements, symbols, and graphics, regarding products. It further describes selected terms commonly used in environmental claims and gives qualifications for their use. It also describes general evaluation and verification methodology for self-declared environmental claims and specific evaluation and verification methods for selected claims.
ISO 14024 Environmental Labels and Declarations—Type I Environmental Labelling—Principles and Procedures, Second edition 2018-02	This standard establishes principles and procedures for developing Type I environmental labeling programs, including selection of product categories, product environmental criteria, and product function characteristics, and for assessing and demonstrating compliance. This document also establishes certification procedures for awarding labels.
ISEAL Standard-Setting Code 2014	ISEAL Codes of Good Practice support standards systems to deliver social and environmental benefits. ISEAL Code of Good Practice for Setting Social and Environmental Standards (Standard-Setting Code) supports development of standards that are relevant and transparent and that reflect balanced stakeholder interests.