

EPEAT Clarification #32
EcoLeaf Standards

This Clarification applies to the following IEEE Standards and criteria:

Applicable Standards:

- IEEE 1680.1 – Personal Computers and Displays
- IEEE 1680.2 – Imaging Equipment
- IEEE 1680.3 – Televisions

Applicable Criteria:

4.5.2.1, 4.5.2.2, 4.7.3.1

PVC Determination: EcoLeaf environmental declarations for the following product categories that are published on the JEMAI website are conformant with criteria 4.5.2.1 and 4.5.2.2, and partially conformant with criterion 4.7.3.1:

- Electrophotographic Dry Process Photocopier (PSC-ID: AA)
- EP and IJ Printer (PSC-ID: AD-03)
- Facsimile (PSC-IDA-03)

Other EcoLeaf product environmental declarations may qualify but standards were not available for review online at the time of this Clarification.

Criteria 4.5.2.1 and 4.5.2.2 are product specific criteria so an EcoLeaf environmental declaration must be made for each product for which these criteria are claimed.

The text of criterion 4.7.3.1 includes additional requirements beyond those potentially addressed by an EcoLeaf product declaration which must be met in order for this criterion to be claimed.

Background Analysis: The criteria 4.5.2.1, 4.5.2.2 and 4.7.3.1 all require some type of Life Cycle Assessment (LCA). EcoLeaf is a labeling system in Japan, which is in conformity to ISO type III environmental declarations (ISO 14025). The calculation methods of EcoLeaf's LCA is prescribed by ISO 14040/ ISO 14044.

EcoLeaf is administered by JEMAI (Japan Environmental Management Association for Industry). JEMAI is a member of GEDnet (Global Type III Environmental Product Declarations Network), which is an international non-profit organization and established on a Japanese initiative by declaration organizations and practitioners in 1999.

The EcoLeaf Label includes three sections of documentation:

“(1) Product Environmental Aspects Declaration (PEAD). This section presents the main environmental impacts in an easy-to-understand manner based on PEIDS data. Required items include: Global warming

load (CO₂ equivalence), Acidification load (SO₂ equivalence), and Energy consumption [MJ]. (See EcoLeaf labeling guidelines ([Page 17](#)) for more information).

(2) Product Environmental Information Data Sheet (PEIDS). The results of the LCA - Compiles the results of inventory analyses and impact assessments for all life cycle stages.

(3) Product Data Sheet (PDS). Collected Data - Gives product information and the energy and material mass inputs/outputs per life cycle stage and per unit product (LCA input data).

All lifecycle stages (all stages specified in the PEIDS of this program: manufacturing, distribution, use, discarding, and recycling)."

Note: A listing of secondary data sources is not mentioned but is part of the requirements for criterion 4.7.3.1.

Criteria Specific Comparison:

4.5.2.1 - Optional—Product specific greenhouse gas emissions – life-cycle assessment

This criterion requires the conduct of a cradle-to-grave assessment of greenhouse gas emissions for the declared product using one of several specified protocols.

Verification Requirements:

b) Identification of standard utilized - **Conformant**

Conformance Summary: In accordance to the EcoLeaf labeling guidelines ([Page 17](#)), GHG emissions is a required part of the information presented on the label. The EcoLeaf LCA calculations are prescribed by ISO 14040 and the label uses the ISO 14025:2006 standard.

The criterion requirement for the LCA to include the product life-cycle from cradle-to-grave, from raw material extraction through the final disposal is fulfilled in the scope section of EcoLeaf's Product-Specific Criteria for the following which have been reviewed:

- Electrophotographic Dry Process Photocopier (PSC-ID: AA)
- EP and IJ Printer (PSC-ID: AD-03)
- Facsimile (PSC-IDA-03)

Other EcoLeaf product environmental declarations may qualify but standards were not available for review online at the time of this Clarification for review.

This criterion is **product specific**.

4.5.2.2 - Optional— Product specific greenhouse gas emissions -- third party verification or making LCA assessment publicly available

This criterion requires making the assessment of greenhouse gas emissions in criterion 4.5.2.2 publicly available through specified ways.

Verification Requirements

b) Documentation of the assessment - **Conformant**

c) If third party verification was conducted, a document confirming that the process used to determine results of LCA assessment conducted under 4.5.2.1 were verified by an independent third party in conformance with ISO 14064 and ISO 14065 carbon accounting and verification standards, or another method referenced in one of the standards referenced in 4.5.2.1 (PAS 2050:2011, the GHG Protocol, ISO 14067, ISO14040/14044 or ISO 14025). The document shall include credentials and contact information of third party verifier. -

Conformant

OR,

d) If the summary of results of the LCA assessment were made publicly available and results submitted into a national database: - **Non-conformant**

Conformance Summary: In accordance to the EcoLeaf label guidelines ([Page 17](#)), GHG emissions reporting is a required part of the information presented on the label. GHG emissions are summarized in the PEIDS and PEAD sections of the EcoLeaf label. EcoLeaf LCA ISO standards are cited on the label with relevant links.

The EcoLeaf PEAD documents lists the name of the external third party verifier(s) who reviewed the analysis. JEMAI is the external third party verifying the LCAs.

EcoLeaf calculations are compliant with ISO 14040, which meets the verification requirements. EcoLeaf's program office acts as the third party verifier for the LCA, then an internal or external verification process may be used for the ISO 14025 labeling portion of the EcoLeaf standard.

The PEAD and PEDIS sections may be considered a summary of the verifier's report regarding the LCA portion of the EcoLeaf label.

This criterion is **product specific**.

4.7.3.1 Optional— Product life-cycle assessment and public disclosure of analyses

This criterion requires conduct of a cradle-to-grave life-cycle assessment for any one product covered under the scope of the standard in accordance with ISO 14044, and making the results publicly available in specified ways.

Verification Requirements:

b) Documentation of data contribution by the relevant database operator - **Non-conformant**

OR

c) Documentation of publication of LCA in peer-reviewed LCA journal or Environmental Product Declaration (EPD) label in accordance with the ISO 14025 standard - **Conformant**

1. Identification of the national database(s), or peer reviewed LCA journal, or EPD Type III label in accordance with ISO 14025 where the complete life-cycle assessment of at least one product, that is covered under the scope of this standard, has been submitted or published

2. Evidence of the submittal to the identified database/public disclosure system, publication in peer-reviewed LCA journal, or EPD label

Conformance Summary: The EcoLeaf label is published in accordance with an Environmental Product Declaration (EPD) Type III label as identified in the ISO 14025:2006 standard. The label section of the EcoLeaf webpage provides a database of all products with their LCA and raw data. In order for Subscribers to claim this criterion, in addition to publishing an EcoLeaf EPD, **Subscribers must make secondary data sources used in the LCA publicly available**, per the product criterion. This data can be made publicly available via a company website, a company annual report, a public database or other public disclosure systems.

This criterion is **not product specific**. Subscribers may claim this optional criterion by meeting the requirements for any **one** product covered under the scope of the Imaging Equipment standard 1680.2.

Appendix:

EcoLeaf PCR Standards:

- Product-Specific Criteria for EP and IJ Printer (PSC-ID: AD-03) http://www.ecoleaf-jemai.jp/eng/pdf/ad_e_3.pdf
- Product-Specific Criteria for Electrophotographic Dry Process Photocopier (PSC-ID: AA) http://www.ecoleaf-jemai.jp/eng/pdf/aa_e.pdf
- Product-Specific Criteria for Facsimile (PSC-ID : AH-03) http://www.ecoleaf-jemai.jp/eng/pdf/ah_e_3.pdf

Change History:

Revision A approved by the Product Verification Committee, published, and effective on 09/25/2014.