

ISO 14025 Type III Environmental Declaration Benchmarking Guidance | Draft for review: 07/18/2017

Introduction

The purpose of this benchmarking guidance is to standardize the way industry-wide EPDs are created to enable establishing benchmarks for comparison using the Sustainable Minds Transparency Report™ / EPD Framework, a 2-part PCR program. Visit the Program Operator Consortium website to learn more about [PCR Alignment](#) and [Creating PCRs](#).

This guidance consists of two sections:

Section 1: How to establish an industry-wide EPD for use as a credible product group benchmark, and

Section 2: How to compare a product-specific EPD to the benchmark.

The intent of this guidance is to:

- Create product group benchmarks so that each manufacturer can use them to compare and demonstrate business advantage and differentiation;
- Make achievable the LEED v4 MR credit for “*Building product disclosure and optimization - environmental product declarations: option 2*” by comparing product-specific EPDs to the industry-wide EPD;
- Set goals for improvement over time by reducing the greatest impacts across all impact categories by life cycle stage.

This guidance has been developed by the [Technical Advisory Board](#) (TAB), the group who oversee the harmonized implementation of the SM Transparency Report™ / EPD Framework. The TAB is made up of LCA experts, industry representatives with LCA expertise, and representatives for Program Operator Consortium members.

The guidance was created from observing existing industry-wide EPDs and the benchmarking guidance from the USGBC. It is being made available for public comment for a period of one month.

Definitions

- **A product group** consists of products that compete for/deliver the SAME function. Product group definitions use a functional performance requirement(s) that impacts/drives the potential environmental performance of the products as codified or specified in standards. [SM Transparency Report™ / EPD Framework [Part B](#)]
- **The benchmarking addendum** is a document added to a new or existing Part B or PCR that provides the additional rules for how to create a product group benchmark
- **A product group benchmark** is a standard point of reference against which results can be compared at the product group level.
- **An industry-wide SM Transparency Report / EPD (TR/EPD)** is a Type III Environmental Declaration that represents the average environmental impacts of products from industry participants.

Section 1: How to establish a credible product group benchmark

This guidance is intended to be used for the purpose of establishing an industry-wide TR/EPD for use as a credible product group benchmark. The guidance is structured to allow for industry-wide TR/EPD creation concurrent with the creation of a *benchmarking addendum* to a Part B.

Credibility

In order for a product group benchmark to be credible, it must be created with the participation of the industry, based on primary data from multiple manufacturers. It must be based on the most relevant PCR and be verified. Any benchmark using only secondary data or data generated by someone other than the primary manufacturer will not be valid.

Scope

Benchmarks shall be based on a functional unit with a cradle-to-grave scope and only created for products with cradle-to-

grave PCRs. Without performance or function, no appropriate average can be considered.

Availability

The program operator responsible for registration of the industry-wide TR/EPD is required to make it publicly available for use as a benchmark.

Industry-wide TR/EPD creation requirements

- **The industry-wide TR/EPD shall be created for one product group.** When an existing PCR represents more than one product group, it is necessary to generate one industry-wide TR/EPD for each product group it represents and establish a Part B benchmarking addendum for each one. No more than one industry-wide TR/EPD shall exist for each product group.
- **A minimum threshold of market participation shall be met.** At least three participants representing at least 50% of the industry creating products to be sold in North America is required to create an industry-wide TR/EPD. The industry average is created using a weighted average based on the percent of the industry each participant represents.
- **Rule creation:**
 - **For industry-wide EPDs intended to be used for comparisons, the industry-wide TR/EPD shall specify global warming plus at least two of the other five impact categories provided in LEED v4** “Building product disclosure and optimization - environmental product declarations: option 2” to be used for comparison. The industry-wide TR/EPD may specify additional impact categories to which they require comparison. The selected impact categories should be selected based on normalizing the TR/EPD results to national or regional per capita averages. The Part B benchmarking addendum shall be updated to reflect the chosen impact categories once selected.
 - **Determine whether a certain key background LCI data set is preferable or required** for materials or processes which are consistently applied across the industry.
 - If use of a certain background data set is required, specify it in the Part B benchmarking addendum with a clear and definitive explanation of why it is required, which should include benchmarking purposes. Required data sets shall be made available to participants in a format compatible with all software products used by the participants, in a way that produces the same results for the specified LCIA method and version number. Specific data sets shall only be required for materials or processes which are consistently applied across the industry and which contribute to more than 10% in any impact category.
 - If use of a certain background data set is not required, the industry-wide TR/EPD may include multiple sets of impact assessment results using alternative data sets to better enable comparisons (e.g., a material is modeled using the same chemical represented by data sets from two separate databases).
 - **In the Part B benchmarking addendum, specify one LCIA method and version number to be used for comparison** (e.g., TRACI v2.1, CML-IA baseline v4.1).
 - **In the Part B benchmarking addendum, specify the threshold of improvement for each impact category.** The threshold shall be based on the quantitative uncertainty of the industry-wide results; in order to demonstrate improvement, product-specific TR/EPD results must be statistically significantly lower than the industry-wide TR/EPD results. Any change within the threshold for uncertainty is considered equivalent to the benchmark.

Industry-wide TR/EPD content requirements

In addition to the TR/EPD content requirements set by the PCR, the following shall be included:

- LCIA method and version number
- Recommendations for improvement where feasible, based on a contribution analysis by impact category for the impact categories required by the industry-wide TR/EPD
 - At least two recommendations should be included

- Recommendations shall not be based on LCIA methodology changes (e.g., updates to electricity factors which reduce emissions)
- Recommendations may be quantitative or qualitative
- State the number of participants and total market share of the group, measured by either production volume or sales. Listing the name of the participants is only required for those participants who will at any time make comparisons to the industry-wide TR/EPD.
- Quantitatively describe the uncertainty of the industry-wide results.
- The following statement regarding comparison limitations shall be included: “An LCA or LCIA shall not provide the sole basis of comparative assertion intended to describe overall environmental superiority or equivalence, as additional information will be necessary to overcome some of the inherent limitations in the study. Value-choices, exclusion of spatial and temporal, threshold and dose-response information, relative approach, and the variation in precision among impact categories are examples of such limitations. LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins, or risks.”

Future participation commitment

Manufacturers who did not participate in the creation of the industry-wide TR/EPD may compare their results to a modified average by using the following process:

- Manufacturers who did not participate in the industry average TR/EPD may include a comparison to industry average results in their own product-specific TR/EPD only if they did not explicitly decline to participate in the original industry-wide TR/EPD. The program operator or industry association is responsible for keeping track of participation information.
- The manufacturer must commit to contributing their primary data to the life cycle assessment used as the basis of the next update of the industry-wide TR/EPD, which is valid for 5 years unless otherwise specified by the existing PCR.
- The manufacturer will submit their product-specific LCA data, which must follow the Part B benchmarking addendum for their product group, under NDA to the party responsible for collecting and averaging data for the industry-wide TR/EPD. That party will recalculate the average based on the addition of their product-specific results and provide the modified average set of results back to the manufacturer for comparison.
- The program operator or industry association is responsible for the industry-wide TR/EPD and shall maintain an ongoing list of manufacturers who publicly contributed to the original industry-wide TR/EPD, plus the manufacturers who committed to publicly contribute to the next update of the industry-wide TR/EPD. Only these manufacturers may make credible comparisons.

Section 2: How to make a comparison to the benchmark

This guidance is intended to be used for comparing product-specific TRs/EPDs to an industry-wide TR/EPD.

Scope

Comparisons shall only be made at the building level for Type III environmental declarations with a cradle-to-grave scope.

Requirements for comparison

- The modules declared in the product-specific TR/EPD shall be the same as those declared in the industry-wide TR/EPD
- The facilities used in the product-specific TR/EPD shall be the same those used in the industry-wide TR/EPD
- To demonstrate impact reduction below industry average, the product-specific TR/EPD results shall be lower than the industry-wide TR/EPD results by the threshold for improvement set by the Part B benchmarking addendum
- Provide justification when impacts in any required impact category are greater than 100% above the industry average
- LCIA method and version number shall be the same
- Any comparisons made shall include the industry-wide TR/EPD results, the product-specific TR/EPD results, the percent improvement or reduction for each impact category being compared, and some interpretation. Comparisons made within the TR/EPD shall be reviewed by the program operator.