HOW TO:
ACHIEVE YOUR DECARBONIZATION GOALS WITH LIFE CYCLE ASSESSMENT AND PRODUCT CARBON FOOTPRINT

FREQUENTLY ASKED QUESTIONS:

1. What is the typical timeline for creating an LCA and an EPD?

The timeline can depend on a range of factors including:

1. Complexity of the product.
2. Number of sites included in the scope.
3. Number of LCA reports and EPDs.
4. Duration of time required for the company to provide the LCA data.
5. Availability of an active PCR.

On average the timeline can range from 6-10 months.

2. What does the data collection process look like?

LCA is a data intensive process. Manufacturers will be required to provide product-specific, supplier-specific, and manufacturing-specific data. This process will typically involve interdepartmental collaboration between plant engineers, procurement, product managers, etc. SSC's Proven Process includes data collection support to assist this effort.

SSC provides the following support services to facilitate the data collection process:

- Data collection spreadsheet
- Recurring calls
- Coordination with the project management leading internal data collection
- Data review for accuracy

3. How much effort is required of my company?

LCA is a data intensive process. The time required can be impacted by a multitude of factors including:

1. Does your company currently have a system in place to track key environmental indicators such as energy, water, waste, emissions, etc.?
2. Can your company provide full bills of materials for each product included in the scope of work, including the mass percentage of each material and the suppliers of those materials?
3. Does your company have a system in place to track their packaging quantities per product?

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4. Does your company know who on their team will be responsible for the specific data requirements?

Depending on how the organization is set up, the data collection efforts required from your company could require up to 50 hours of support.

4. How reliable or accurate are the datasets used in the LCA software?

The datasets included in LCA software such as SimaPro or LCA for Experts (formerly GaBi) are third-party reviewed and verified. They will typically represent regional processes for average production methods. The datasets are often sourced from industry survey data, academic studies, peer-reviewed articles, etc.

5. Why can't Renewable Energy Credits (RECs) or Power Purchase Agreements (PPAs) be applied to LCA?

The current standards for LCA do not account for RECs or PPAs. The American Center for Life Cycle Assessment (ACLCA) has recently released guidance documentation for Quantifying Renewable Electricity Instruments in Environmental Product Declarations. The guidance document provides recommendations to quantify renewable energy investment and interpret results.

6. With recycled content, does it have to be pre-consumer or post-consumer recycled content?

In LCA, both pre-consumer (post-industrial) and post-consumer content are treated as recycled content. However, it is important to note this ruling can change depending on the Product Category Rule. For example, certain PCRs will treat pre-consumer as scrap vs. recycled content; therefore, only post-consumer content would abide by the cut-off methodology for LCA. This could be discussed on a case-by-case basis.

7. What additional time and effort is anticipated for cradle-to-gate vs. cradle-to-grave?

There would not be significant time added to the project schedule during the EPD development phase. The system boundary (cradle-to-gate vs cradle-to-grave) is often dictated by the PCR. The practitioner can typically leverage the information and guidance put forth by the Product Category Rule to model gate to grave impacts. To develop a cradle-to-grave PCR may take more time, as that would require the members of the association and PCR development committee to come to an agreement on standard installation procedures, use phase assumptions, etc.

8. Are EPDs internationally recognized?

Yes, EPDs are internationally recognized. However, certain regions may request specific Life Cycle Impact Assessment (LCIA) methodologies or specific standards (i.e., ISO 21930:2017 vs. EN 15804:2019+A2). Regarding LCIA, TRACI was developed by the EPA and is predominantly used in the North American market. CML is more so used in the European Union. Ultimately, the standards used will be dictated by the Product Category Rule (PCR). However, it is important for manufacturers to understand the regions for which they plan to market their EPDs.

9. Do EPDs have to be made public?

EPDs must be publicly available per ISO 14025:2006 which is an international standard that governs environmental labels and declarations. The EPD does not have to be listed or marketed on the manufacturer's website, but it does have to be publicly available after publication (i.e., listed on the Program Operator's website).

10. We want to make a low carbon EPD, how would we do that?

There is currently no individual EPD process/document specific to "low carbon" products. If a manufacturer would like to show environmental impact reductions between two generations of a product, they can develop two EPDs: one for each product. If the newer generation product shows reduction, the manufacturer can note this in a supplementary document. If a manufacturer has conducted two LCAs or two generations of EPDs, they could pursue an LCA Optimization certification as well. Lastly, if a manufacturer would like to make comparative assertions to a competing product or system, the ISO standards require the study to undergo review by a three-person critical review panel.