Furthering Life Cycle Assessment-Based Procurement Specifications in State Contracts

Recommendations

Summary

The State of Minnesota (State) Pollution Control Agency has taken a number of steps to further the use of environmental life cycle assessment (LCA) in State procurement specifications. Recent steps include receiving a U.S. EPA grant to identify greenhouse gas (GHG) reduction strategies for apparel and information, communication, and technology (ICT) products, initiating an environmentally-extended input-output (EEIO) assessment of existing contracts to prioritize future efforts, and becoming a founding member of the newly-formed Sustainable Purchasing Leadership Council. To increase the efficiency and success of future work I recommend the State use the information requests, data sources, and vendor questions listed below.

Recommendations

1. Obtain Data on Quantities Purchased by Contract Line Item

Once particular contracts are prioritized through the EEIO assessment, it is imperative staff receive detailed information from contract managers on the actual products[1] purchased from prioritized contracts. Most LCA studies that could be used to develop specific environmental procurement specifications are based on individual products and services, not by sector. To get potential specifications right and to measure results of environmental improvements the following information should be obtained:

1) For each product listed in a contract:
    a. the quantity purchased in a 12 month period
    b. the price per unit or other appropriate grouping of products
    c. the corresponding United Nations Standard Products and Services Code® (UNSPSC) code
    d. mass or volume measurement appropriate to the product (e.g. 64 ounce container of detergent)
    e. associated Material Safety Data Sheets (MSDS) should be easily obtainable by sustainable procurement staff for further product/service descriptions and material composition
2) Additional information for services contracts:
    a. a layperson description of the services provided through the contract should be included

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[1] Products refers to both goods and services.

2. Search the following sources for existing environmental procurement specifications and LCA results

The following sources may be useful in identifying product environmental hotspots and existing environmental procurement criteria. The list of sources, organized by type of information provided, is not exhaustive.

Published Environmental Product Declarations (EPD) for LCA Hotspot Identification:

Based on ISO 14025 standards, an EPD offers a transparent, comprehensive report on the full life cycle of a product – from raw material extraction to end-of-life disposal. Validated by a qualified, objective third party, an EPD can be used to substantiate marketing claims and enable comparison among similar products.   Though EPDs are specific to the product they were commissioned for, the report may still be useful in identifying environmental impacts likely applicable to similar products.

A thorough description of EPDs can be found at: http://www.pe-international.com/topics/what-are-environmental-product-declarations/.

Program	Web Address
The International EPD System	http://environdec.com/
UL Environment's Sustainable Products Database UL Environment is a private consulting company and EPD program operator. Their sustainable products database includes a filter feature for UL Environment published EPDs.	http://www.ul.com/global/eng/pages/offerings/businesses/environment/databasesearch/iframe/

Product Category Rules (PCR)

EPDs are created using Product Category Rules (PCR) based on ISO 14025. PCRs are LCA requirements and rules specific to a particular product or service category. When developed correctly PCRs enable valid comparisons between different products that have EPDs developed in conformance with the PCR. PCRs themselves can sometimes provide information on particular product category environmental hotspots.

Program	Web Address
PCR Library	http://pcr-library.edf.org.tw/index.asp

Life Cycle Assessment Databases

These databases may be particular useful when comparing raw materials or in identifying environmental hotspots from commonly-produced products.

Program	Web Address
GHG Protocol list of third-party databases List of 50+ databases	http://www.ghgprotocol.org/Third-Party-Databases
U.S. Life Cycle Inventory Database	https://www.lcacommons.gov/nrel/search

Ecolabels

Most ecolabels are not developed using LCA study results; however, the ecolabels are often developed with consultation from expert stakeholders, and many are accompanied with supplemental research to support the criteria. Successful ecolabels are recognized by vendors and are often required by other government agencies and organizations. Ecolabels with high market penetration are more likely to be successfully used in the procurement process.

Program	Web Address
U.S. General Services Administration Green Procurement Compilation	http://sftool.gov/GreenProcurement
Global Ecolabeling Network	http://www.globalecolabelling.net/categories_7_criteria/list_by_product_category/index.htm
Ecolabel Index	http://www.ecolabelindex.com/
ENERGY STAR Qualified Products	http://www.energystar.gov/index.cfm?fuseaction=find_a_product.&s=mega
EPA Design for the Environment (DfE) Label	http://www.epa.gov/dfe/pubs/projects/formulat/formpart.htm

3. Ask vendors for information

Issuing a request for information (RFI) to current vendors and additional stakeholders may help solicit environmental information relevant to the studied product. Suggested language and vendor questions are listed below.

> The State of Minnesota is considering revising environmental procurement criteria for *<insert product category>*. To ensure the criteria are practical and relevant to *<insert product category>* we request current vendors and additional *<insert product category>* stakeholders respond to the following questions:
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> 1. What are the top 3-5 environmental issues of concern related to this product/service? From which parts of the product/services production process do these concerns arise from?
>   i. Are there material, production, and/or other product/service changes that can mitigate these issues?
> 2. If there is a similar product/service you offer that is environmentally preferable, what characteristics make it that way?
> 3. Are there existing third-party environmental certifications (e.g. ecolabels) that exist for this product category?

4. Search Additional Sources

1. **Trade Associations** – if the vendor does not have information the relevant industry and trade association(s) may have environmental reports with relevant product information.
    a. A-Z Index of Trade Associations: http://www.usa.gov/directory/tradeassc/index.shtml

2. **Google Scholar** – a free search engine for academic publications. Search "life cycle assessment" and product type. The search will reveal if there are relevant articles, and which one(s) are freely available.
    a. http://scholar.google.com/.