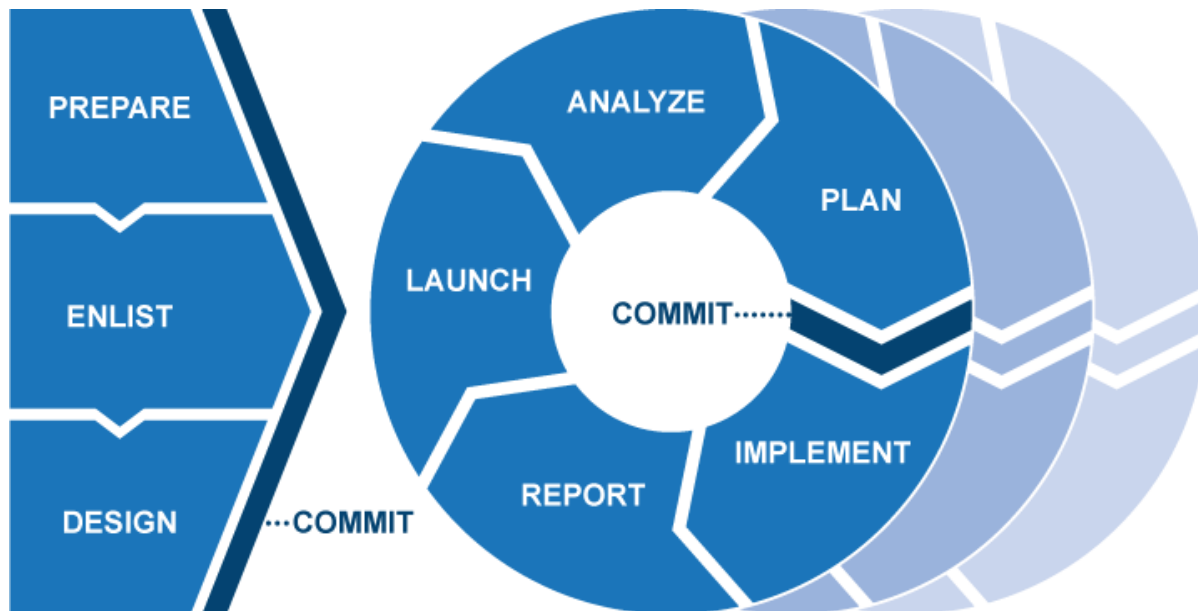


Guidance for Leadership in Sustainable Purchasing v2.0



About this Publication

The *Guidance for Leadership in Sustainable Purchasing Version 2.0* is intended to help organizations improve environmental, social, and economic performance within their supply chains—across the entirety of product and service life cycles—by implementing a strategic sustainable purchasing program. This Guidance is based on the Council’s Principles for Leadership in Sustainable Purchasing, which define what it means to be a responsible—principled—actor, as an organization and within the marketplace. Organizations in a wide variety of sectors and regions can use this Guidance to understand the environmental, social, and economic life cycle impacts of their purchased goods and services, identify actions that best address these priorities, and benchmark progress toward goals. This Guidance is a voluntary program that will serve as the basis for a future rating system that rewards organizations that demonstrate leadership in sustainable purchasing. Guidance v2.0 incorporates feedback from the Guidance v1.0 Pilot Program, using a multi-stakeholder committee process led by a Technical Advisory Committee (TAC) and including eight Technical Advisory Groups (TAGs). Both the TAC and TAGs are made up of volunteers from SPLC Member organizations in the Purchaser, Supplier, and Public Interest Advocate Roles. The Technical Advisory Groups are as follows:

- Chemically Intensive Products TAG
- Construction and Renovation TAG
- Electricity TAG
- Food and Beverage for Food Services TAG
- IT Hardware and Services TAG
- Professional Services TAG
- Transportation and Fuels TAG
- Wood and Agrifiber Products TAG

About the SPLC

The Sustainable Purchasing Leadership Council is a non-profit organization whose mission is to support and recognize purchasing leadership that accelerates the transition to a prosperous and sustainable future. The Council oversees a number of programmatic activities, including:

- **Membership** – a leadership network and community of practice
- **Tool development** – sustainable purchasing guidance, measurement & benchmarking
- **Professional development** – educational programming, peer-to-peer sharing, and training curricula
- **Convenings** – annual summit, annual buyer-supplier matchmaking event, many conference side events
- **Awards** – honoring individuals and organizations whose work has advanced the sustainable purchasing movement
- **Leadership recognition program** – rating system development and governance

Some of these activities are directly initiated and executed by the Council, while some are undertaken in collaboration with partners. The Council seeks to continue its history of constructive partnership and coordination with existing initiatives, with the goal of accelerating the market's adoption of the sustainable purchasing best practices and tools they produce. More information about the history of the Council is at: <https://www.sustainablepurchasing.org/history-of-the-council/>.

Copyright

Copyright © 2016 by the Sustainable Purchasing Leadership Council. All rights reserved.

The Sustainable Purchasing Council, dba the Sustainable Purchasing Leadership Council (SPLC) devoted significant time and resources to create this *Guidance for Leadership in Sustainable Purchasing v2.0*.

Note: Throughout this document, the publication will often be referred to in short form, as simply “Guidance” or “the guide.” SPLC authorizes individual use of this guide. In exchange for this authorization, the user agrees:

1. to retain all copyright and other proprietary notices contained in the guide,
2. not to sell or modify the guide, and
3. not to reproduce, display, or distribute the guide for any commercial purpose.

Unauthorized use of this guide violates copyright, trademark, and other laws and is prohibited.

The text of the federal and state codes, regulations, voluntary standards, etc., reproduced in the guide is used under license to SPLC or, in some instances, is in the public domain. All other text, graphics, layout, and other elements of content in the guide are owned by SPLC and are protected by copyright under both United States and foreign laws.

Development Process

This *Guidance* and other programmatic work of the Council are developed in accordance, as appropriate, with its governing documents. This Guidance was developed under the direction of the SPLC's Technical Advisory Committee and through the formation of eight Purchasing Category Technical Advisory Groups. More detail on the development process is provided on the SPLC website (<https://www.sustainablepurchasing.org/guidance>).

In developing this content, the Council recognizes that tremendous work has already been invested in the sustainable purchasing movement. The Council intends to provide a program through which the results of previous and current initiatives can become more widely adopted in the marketplace.

This *Guidance* reflects the Council's view of the best existing work available for promotion through Council's

programs. If our community identifies areas where insufficient guidance exists, the Council seeks partners to help address the identified needs.

Disclaimer

None of the parties involved in the funding or creation of this *Guidance for Leadership in Sustainable Purchasing v2.0*, including the Sustainable Purchasing Leadership Council, its members, its contractors, or the United States government, assume any liability or responsibility to the user or any third parties for the accuracy, completeness, or use of or reliance on any information contained in the Guide, or for any injuries, losses, or damages (including, without limitation, equitable relief) arising from such use or reliance. Although the information contained in the Guide is believed to be reliable and accurate, all materials set forth within are provided without warranties of any kind, either expressed or implied, including but not limited to warranties of the accuracy or completeness of information contained or the suitability of the information for any particular purpose.

As a condition of use, the user covenants not to sue and agrees to waive and release the Council, its members, its contractors, and the United States government from any and all claims, demands, and causes of action for any injuries, losses, or damages (including, without limitation, equitable relief) that the user may now or hereafter have a right to assert against such parties as a result of the use of, or reliance on, the Guide.

Sustainable Purchasing Leadership Council
2885 Sanford Ave SW #33539
Grandville, MI 49418

Founders Circle

The following organizations came together in a Founders Circle to commit financial and technical resources to the launch of the SPLC. The Council—and this *Guidance*—would not exist without their early investment.



2016 Board of Directors

- Anastasia O'Rourke, *Industrial Economics, Inc (IEC) (Chair)*
- Joan Kerr, *PG&E (Chair Elect)*
- Cynthia Cummis, *World Resources Institute (Treasurer)*

- Chris O'Brien, *Altenex (Secretary)*
- Bjorn Claeson, *Electronics Watch*
- Billy Linstead Goldsmith, *Fair Trade USA*
- Dan Pleshko, *Lockheed Martin*
- Jonathan Rifkin, *City of Washington, DC*
- Lynda Rankin, *Province of Nova Scotia*
- Lynne Olson, *Ecolab*
- Mark Rossolo, *Underwriters Laboratories (UL)*
- Yalmaz Siddiqui, *MGM*
- Sam Hummel, *SPLC (Staff Representative)*
- Jason Pearson, *SPLC (President & CEO)*

2016 Technical Advisory Committee

- Alexandra Mihailescu, *RepRisk*
- Alison Kinn Bennett, *U.S. EPA*
- Bjorn Claeson, *Electronics Watch*
- Brad Miller, *BIFMA*
- Breana Wheeler, *BuildingWise*
- Catherine Benoit Norris, *New Earth*
- Charleen Fain-Keslar, *California Department of General Services*
- Chris O'Brien, *Altenex*
- Christina Simon, *Lockheed Martin*
- Debora Bonner, *PG&E*
- Deborah Dunning, *Sphere-E*
- Geoffrey Carbonnel, *EcoVadis*
- James Barsimantov, *SupplyShift*
- Johanna Kertesz, *Minnesota Pollution Control Agency (Chair)*
- Lara Koritze, *ISEAL*
- Lynda Rankin, *Province of Nova Scotia*
- Mark Petruzzi, *GreenSeal*
- Mark Rossolo, *UL*
- Nancy Wahl-Scheurich, *Little Footprint Lighting*
- Orrin Cook, *Center for Resource Solutions*
- Randy Higgins, *Citi*
- Raymond Randall, *Waste Management*
- Rob Shimp, *SCS Global Services (Vice-Chair)*
- Sangwon Suh, *VitalMetrics*
- Steve Baer, *thinkstep*

Technical Advisory Groups

The Technical Advisory Committee oversees the work of nearly one hundred volunteers on Technical Advisory Groups. See all [current Technical Advisory Group members](#).

Project Team

Project Leader Christina Macken

Project Support Cuchulain Kelly
 Jason Pearson

A Letter from the Board of Directors

Dear Stakeholder,

Every organization's journey has a few pivotal moments. For the Sustainable Purchasing Leadership Council (SPLC), this is one. With the release of our *Guidance for Leadership in Sustainable Purchasing v2.0*, we are continuing to improve one of our major deliverables: a shared program for guiding leadership in sustainable purchasing.

Our hope is for this work to meaningfully contribute to improving the practice of institutional purchasing. We believe wide implementation of this guidance will unlock tremendous benefits to the institutions choosing to use it, to society, and to the world.

After all, institutional purchasing is often not only habitual—the same goods and services are purchased repeatedly—but also tremendously powerful. A broad set of institutional purchasers who prioritize improving the environmental, social, and economic performance of their purchasing will—we believe—usher in a new era of innovation that is critical to advance a more prosperous, socially just, and sustainable future.

The SPLC's *Guidance* has been developed with the same spirit of collaboration and openness to new ideas that we've had from the very start of this initiative. Our history goes back to 2008, when The Keystone Center convened the Green Products Roundtable (GPR), attempting to answer questions such as "What is a green product?" and "What makes a credible ecolabel?" Members soon recognized that the framing was too narrow, and so SPLC was created with a much larger remit: shifting from "green" to "sustainable," addressing economic and social factors as well as environmental; and from "product" to "purchasing," thereby focusing on a key leverage point in institutional decision making.

This *Guidance* is the result of remarkable and incredibly hard work by more than 100 individuals on the Technical Advisory Committee and eight Technical Advisory Groups, the many stakeholders who participated and provided feedback during the Guidance v 1.0 Pilot Program, and the other members and stakeholders who contributed their time, resources, and expertise to help us make improvements to this very important work.

This guide is also built on the good work of many organizations, individuals, and partners who have paved the way for initiatives such as the SPLC to bring this work together. We thank them for their previous work, their partnership, and their collaborative spirit and commitment to the shared journey ahead.

SPLC is a startup, both in fact (it was formally incorporated in 2013) and in style. We take inspiration from entrepreneurs who trust the market to guide product development through an iterative process. *Guidance v2.0* is the most recent iteration of a multi-sector and multi-region guidance program for sustainable purchasing, built on thoughtful dialogue and lessons learned, in the spirit of continuous improvement. We will continue to welcome the involvement of additional organizations interested in helping to refine the program. The problems we are trying to solve are big and will require all of us.

On behalf of the entire Board of Directors, we invite your feedback on this *Guidance*. The experiences and reflections of *Guidance* users and reviewers will greatly improve this work, and will inform future versions. It takes a broad community to build a meaningful and transformative tool for the market. Finding the best solutions will require many dedicated participants working together to improve our collective future.

Thank you for your continued engagement in the nascent yet critically important and growing field of sustainable purchasing.

Dr. Anastasia O'Rourke, *Chair*

Foreword

Guidance for Leadership in Sustainable Purchasing is an invitation—to you and your organization—to seize a leadership opportunity. Whatever your role—as purchaser, supplier, public interest advocate, or some combination of these—sustainable purchasing represents a strategic opportunity to create benefit. For your own organization. For your community. For society. For the planet. And for future generations. We intend this *Guidance* as a resource for you in navigating this opportunity and realizing these benefits.

Individually and collectively, institutional purchasers and their suppliers create and shape our modern industrial marketplace and, in so doing, determine its sustainability. Organizational purchasing decisions send powerful economic signals up and down the entire supply chain, with the potential to influence the environmental, social, and economic performance of the entire economic system. As a leadership community, we have an opportunity to shape those signals with meaning and intention, in order to drive investment and innovation toward a truly sustainable future.

But we face a fundamental challenge in exercising leadership through sustainable purchasing: *the lack of standardization in how sustainable purchasing is defined, guided, measured, and rewarded*. The Sustainable Purchasing Leadership Council offers a two-part solution to this challenge. First, we convene a diverse community of collaboration to identify the most useful existing guidance. Second, we coordinate this volunteer leadership community in developing a shared program that defines, guides, measures, and recognizes leadership in sustainable purchasing.

The Council's *Principles for Leadership in Sustainable Purchasing* began that process by establishing a shared definition of leadership in sustainable purchasing, and this *Guidance*, which builds on those *Principles*, is intended to enable organizations from a wide variety of sectors to send *clear market signals* that simultaneously advance their own organizations and the sustainability of the global economy.

The many volunteers who came together to create this *Guidance* share this vision for a positive future. Together, we invite you to use this *Guidance*, to provide feedback about this *Guidance*, to participate in the conversations that we convene around this *Guidance*, to collaborate with others—within your organization and without—in implementing this *Guidance*, and to suggest other stakeholders who should be engaged in the conversation.

As the staff of the Council, we thank you for being part of this growing leadership community.

Jason Pearson
President & CEO

Sam Hummel
Director of Outreach and Operations

Christina Macken
Director of Programs

Cuchulain Kelly
Communications Coordinator

Lisa Shusko
Member Services Coordinator

Quick Start Guides

These Quick Start Guides are a new addition in *Guidance v2.0*. Hopefully, they will help people more quickly locate the parts of the *Guidance* most relevant to their role in their organization.

Below are the Quick Start Guides developed or in development. Please leave a comment if there are any particular needs you think a Quick Start Guide could help address. That will help accelerate the work to build out this section. Thanks!

- [Chief Procurement Officer](#)
- Chief Sustainability Officer
- Procurement Analyst/Contract Administrator
- Budget Holder
- Supplier
- Public Interest Advocate
- Certifier/Standards Developer

Chief Procurement Officers

Intended Outcome

CPO has confidence that:

1. The social, environmental, and economic impacts and opportunities associated with their organization's spending are well understood,
2. The organization has developed and is executing strategies to address the most significant impacts and promising opportunities,
3. The organization is getting ever-greater innovation and transparency from its suppliers and supply chain.

Step 1: Get the Overview

Briefly familiarize yourself with the [structure of the Guidance](#) and the strategic processes it supports.

Step 2: Identify a sustainable purchasing “Champion”

SPLC refers to the suite of activities that make the above outcomes possible as a “Sustainable Purchasing Program” (capitalized). A little legwork is required to develop the vision for a Sustainable Purchasing Program, enlist stakeholder support, design the program activities and structure, and win support for implementing them. [Chapter 2: Program Design](#) provides detailed guidance for these steps. In fact, organizations with an existing Sustainable Purchasing Program may find ways to strengthen their program by reviewing Chapter 2. Unless you have the time to do this program-building legwork, you'll want to [identify a Champion](#) to lead this part of the process.

Step 3: Support your Champion in leading the Program Design process

You are one of the [key stakeholders](#) in your organization's Sustainable Purchasing Program. ([Not sure you need a Sustainable Purchasing Program?](#)) Your feedback and support will be invaluable as your Champion [develops an initial program vision](#), [enlists stakeholders](#), [develops a program plan](#), and [seeks the organization's commitment](#) to that program plan.

Step 4: Support your Program Leader in running the Program

The Guidance advises organizations to grow their Sustainable Purchasing Program iteratively, using multiple prioritization and continuous improvement cycles. The Guidance offers readers a six-step continuous improvement process dubbed the [Strategy Cycle](#), which is based on the wisdom and advice SPLC received from dozens of sustainable purchasing leaders. During the Program Design phase in the previous step, your team

will have already mapped the Strategy Cycle's insights to your organization's typical management processes and identified a Program Leader to run the process.

They should also have identified staff time or other resource needs required to run the continuous improvement process. Your support to ensure those resources arrive will be invaluable.

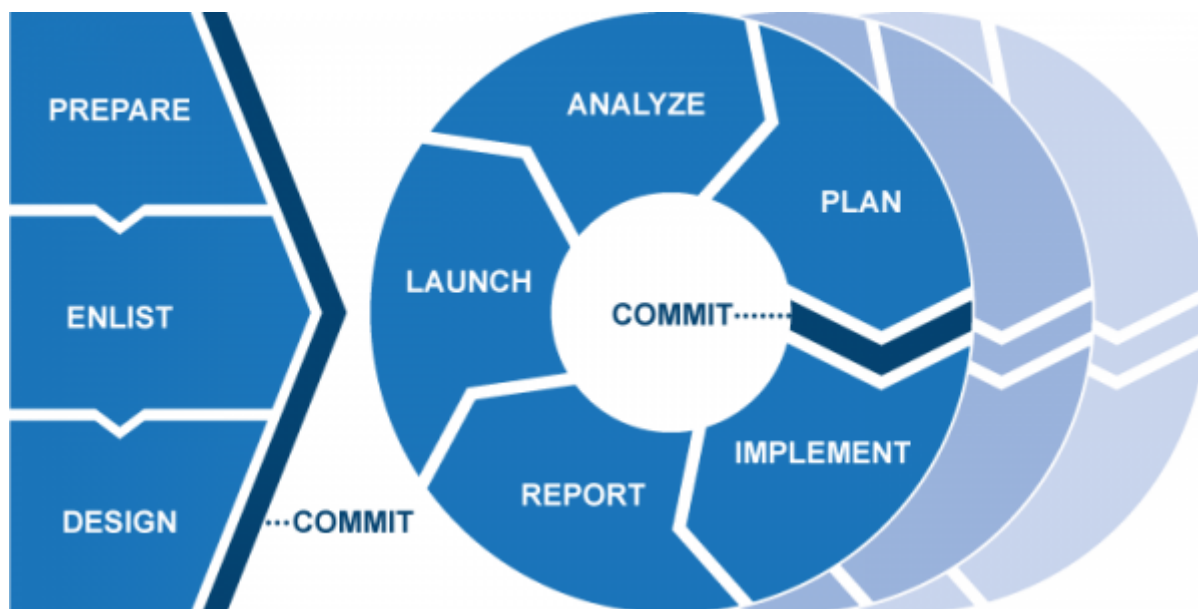
Once the program is up and running, you can expect the Project Leader to be looping you into stakeholder conversations, bringing you action plans for the strategies the project teams develop, and reporting out progress on the metrics established in those action plans.

Soon, you should start to feel like you have a comprehensive understanding of where the greatest social, environmental, and economic impacts and opportunities are within your organization's purchasing, supply base, and supply chain. This will position you and your organization to be on a proactive, rather than a reactive footing, with regards to these issues. Organizations in that position regularly report discovering win-win-win opportunities that advance the well-being of the organization, communities, and the planet.

Bonus: Explore the Category Guidance in Chapter 4

[Chapter 4](#) contains guidance specific to a number of product and service categories, with a focus on indirect procurement (because that is where there is the greatest overlap between the purchasing of organizations in all sectors and regions). Your project teams can use relevant sections of Chapter 4 to guide their thinking when working on a category addressed in the *Guidance*. For categories not yet addressed in the *Guidance*, the process guidance of Chapter 3 will help them arrive at the right outcomes.

1 Background



Overview: The Case for Guidance

The Opportunity: Institutional purchasers send a powerful economic signal.

Sustainable purchasing enables institutional purchasers to advance a sustainable future by leveraging their market influence. Annual government purchasing in the United States represents \$2.5 trillion (15% of total U.S. Gross Domestic Product) in demand for goods and services. Institutional purchasing by business-to-consumer service providers (e.g., hotels, hospitals, financial institutions, airlines, universities, schools, etc.) represents an additional \$7.5 trillion in demand for goods and services. Combined, those governmental and institu-

tional sectors account for \$10 trillion in demand. Overall, institutional purchasing represents an estimated two-thirds of U.S. economic demand. For these organizations, the environmental impacts associated with their purchasing are typically four to nine times greater than their direct, operational impacts.

The Challenge: A lack of standardization inhibits leadership action.

Organizations face a fundamental challenge in pursuing sustainable purchasing: namely, the lack of standardization in how sustainable purchasing is de-fined, guided, measured, and rewarded. Individual organizations create and communicate different definitions and metrics for what constitutes “sustainable.” As a result, suppliers receive mixed signals regarding how they can demonstrate a commitment to providing sustainable products and services.

The Solution: A shared program provides a framework for leadership action.

The Council proposes a two-part solution to the above challenges:

- Create a multi-stakeholder community of collaborators to identify and evaluate best available guidance for organizations engaged in sustainable purchasing.
- Develop an integrated program that guides, measures, and recognizes leadership in sustainable purchasing, enabling organizations in a wide variety of sectors and regions to send clear, consistent market signals defining and measuring sustainability.

These actions will help advance an organization’s pursuit of sustainability and the long-term health and stability of our shared global economy. This guide is the first major component of the Council’s integrated program of support for institutional leadership in sustainable purchasing.

About This Guidance

Guiding Principles

This *Guidance* is based on five [Principles for Leadership in Sustainable Purchasing](#) developed by the Council’s members. The principles define what it means to be a responsible—principled—actor, as an organization and within the marketplace.

According to the *Principles*, a leader in sustainable purchasing demonstrates:

- **Understanding.** Understanding the relevant environmental, social, and economic impacts of its purchasing.
- **Commitment.** Taking responsibility for the relevant environmental, social, and economic impacts of its purchasing by committing to an action plan.
- **Results.** Delivering on its commitment to improve the relevant environmental, social, and economic impacts of its purchasing.
- **Innovation.** Actively promoting internal and external innovation that advances a positive future.
- **Transparency.** Soliciting and disclosing information that supports a marketplace of innovation.

Download the full [Principles for Leadership in Sustainable Purchasing](#) [PDF] document for more detail, including examples of representative actions for each principle, definitions for key terms, and interpretation instructions for various stakeholders.

The Principles outline a framework for exploring and implementing a strategic sustainable purchasing process, which are operationalized within this *Guidance*. Each chapter explores the principles in the context of particular purchasing processes and categories. For example, the purchasing category guidance in Chapter 4

explains ways that an organization can promote innovation in categories where definitive solutions to significant environmental, social, and economic impacts are lacking.

Prioritization = Leadership

Embedded in the [Principles for Leadership in Sustainable Purchasing](#) is recognition of the **vital role of prioritization in leadership**. The Principles begin with **understanding**, because *understanding enables prioritization*. Once an organization understands its most significant purchasing impacts, it can confidently identify, prioritize, and action plan *the best solutions* to those impacts. By **committing** to strategic action plans that address the most relevant (prioritized) impacts within its purchasing, the organization can efficiently and effectively deliver **results**. Each chapter of this *Guidance* provides a practical framework for conducting prioritization in the specific context of sustainable purchasing.

Why Innovation?

Habitual purchasing practices represent the single largest barrier to realizing a more sustainable industrial economy. Unless we innovate the way we buy and what we buy we will continue to reproduce the social, environmental, and economic impacts that we experience in our industrial economy today. Challenging status quo thinking, practices, and products is critical to advancing a prosperous, socially just, and sustainable future.

Institutional purchasers therefore have an opportunity to exercise sustainable purchasing leadership via innovation:

- 1) externally, by using their market influence to promote and encourage innovation in the marketplace; and
- 2) organizationally, by supporting staff in continuously innovating their organization's processes and purchasing practices to create better outcomes for the organization, society, and the planet.

Leading on Transparency

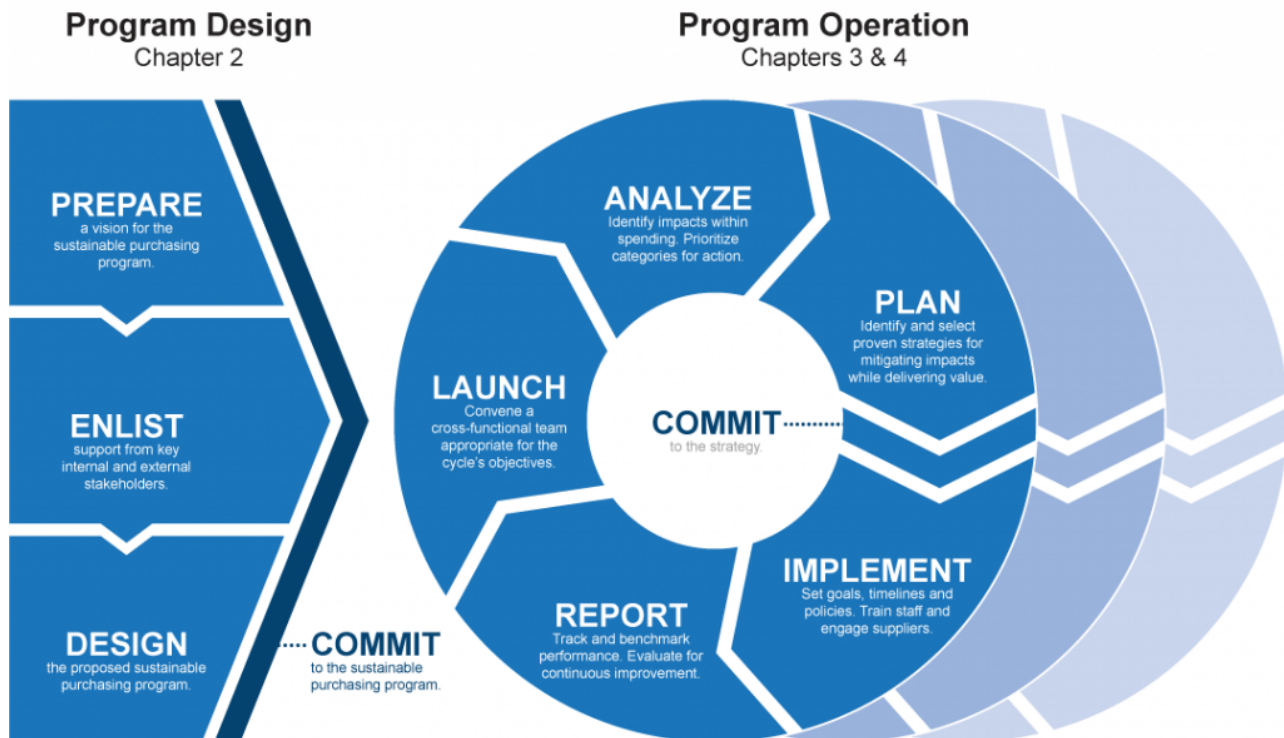
Obtaining greater visibility into the upstream and downstream impacts of goods and services allows all organizations in a supply chain to better manage their risks and catalyze innovation in the places where it would do the most good. Transparency is also a building block for collaboration and/or healthy competition that motivates organizations to demonstrate social, environmental, and economic leadership. Finally, transparency can increase trust with consumers, who are increasingly demanding more information regarding the environmental, social, and economic impacts of their purchases and the companies supplying products and services.

Achieving greater supply chain transparency requires better information sharing between supply chain and marketplace actors. There are many challenges to improving information sharing, such as determining what needs to be shared, who is responsible for providing it, who owns it, how to protect confidentiality and intellectual property, and so on. SPLC's *Principles* recognize that sustainable purchasing *leaders* are those who persist in spite of those challenges, working collaboratively to solicit and disclose the information that enables buyers, suppliers, and consumers to make more sustainable decisions.

Structure of the Document

This Guidance is intended as a comprehensive handbook for organizations seeking to exercise leadership in

sustainable purchasing. Because not all organizations will be starting from the same place, the *Guidance* supports iteratively growing sustainable purchasing efforts over time into a comprehensive sustainable purchasing program that ultimately enables an organization to take meaningful responsibility for *all significant environmental, social, and economic consequences* of its spending. Only by doing that, can an organization demonstrate genuine leadership.



The document is organized in four chapters, which together provide a framework for the cross-functional collaboration necessary to build a highly effective Sustainable Purchasing Program.

- **Chapter 1** provides an overview of sustainable purchasing and the strategic opportunity that it represents.
- **Chapter 2** Helps sustainable purchasing “champions” build strategic and leadership-capable Sustainable Purchasing Programs within their organizations.
- **Chapter 3** describes a continuous improvement process that cross-functional teams can employ to develop strategies for achieving specific environmental, social, and economic performance goals.
- **Chapter 4** offers guidance on how to apply this strategic thinking for specific categories of purchasing that may be priorities for a wide variety of organizations.

Overall, these chapters are designed to give an organization the basic building blocks to pursue and achieve leadership in sustainable purchasing.

Benefits of Sustainable Purchasing

Implementing an effective, integrated plan for sustainable purchasing can assist purchasing organizations in accomplishing the following:

- + Save money
- + Reduce disruption risk
- + Improve vendor relationships
- + Promote more resilient supply chains
- + Build better customer relationships

- + Increase employee satisfaction and retention

[More about the benefits of sustainable purchasing in Chapter 2.](#)

Opportunities to Exercise Influence

Improve the Bottom Line

Sustainable purchasing provides vast opportunities for organizations to improve their bottom line. Within this Guidance, strategic actions are tied to internal benefits that will help to build the case for making a different purchasing decision, be it buying less, investing in a new technology, changing user behavior or choosing to lease a product. For example, making electronics purchasing decisions that mitigate environmental, social, and economic impacts can result in reduced operating, replacement, and disposal costs, improved security, and increased user satisfaction. The same possibilities exist within every purchasing category addressed within this guide.

Be part of (and be recognized for) a collective leadership agenda.

This Guidance gives organizations the tools to become leaders within the procurement community. Organizational purchasing decisions send powerful economic signals up and down the entire supply chain, with the potential to influence the environmental, social, and/or economic performance of entire markets. Institutional purchasing is a strategic leadership opportunity at the global economic scale. Collectively, institutional purchasers have the opportunity to shape entire markets.

Use market influence to advance a positive future.

Including procurement as part of an organization's strategic sustainability initiative will greatly enhance its environmental, social, and/or economic performance. According to Dan Tangherlini, former Administrator of the U.S. General Services Administration (GSA), the supply chain impacts of GSA's goods and services purchasing creates a carbon footprint **nine times** that of the operational impacts of their buildings and fleet combined.^[1] Incorporating goods and services purchasing impacts into an organization's sustainability considerations will typically shift—and broaden—its priority impact focus areas significantly.^[2] The tables on the following page display a non-exhaustive list of potential impacts within product and service supply chains and the potential benefits associated with addressing them.

Empower staff to be part of a collective solution.

Procurement professionals have a strategic role in leveraging institutional purchasing to improve environmental, social, and economic impacts. They are uniquely positioned to demand transparency on the upstream and downstream impacts of goods and services, and incorporate that knowledge into purchasing decisions at a scale that can shift markets and ensure that "sustainable" products demonstrate quality and total cost benefits. Contributing their experiences and knowledge to both the supplier community and their organization's purchasing community is critical to the success of the sustainability movement and will define purchasing leadership for years to come.

^[1] See "GSA Administrator Dan Tangherlini on Sustainable Purchasing." Published May 22, 2014. <https://www.youtube.com/watch?v=wR8bzL1x4VU>

^[2] Certainly, this isn't to say that organizations should stop improving their own operations. Rather, it is to say that claims to sustainability leadership are dubious when an organization improves only its own operations, ignoring the likely much larger footprint in its supply chain.

A Broader Context for Sustainable Purchasing

Leadership in sustainable purchasing involves thinking expansively and holistically about the environmental, social, and economic performance of an organization's supply chain and optimizing that performance in order to advance a positive future. The lists below include key aspects of a supply chain's environmental, social, and economic performance that tend to contribute to (+) or detract from (-) such future. The lists are intended to spark ideas for discussion internally and with stakeholders, recognizing that the list is not exhaustive, nor is every item on the list necessarily relevant for every organization or purchasing category. For more information about how to think about aspects of environmental, social, and economic performance, please refer to the *Principles for Leadership in Sustainable Purchasing v1.0*, available on the SPLC website, and to the resources from which these lists are drawn, including: UN Global Compact, UN Guiding Principles on Business & Human Rights, International Bill of Human Rights, the Global Reporting Initiative, and lifecycle assessment standards. A related worksheet is available from the SPLC website.

[\[Download the below table as a PDF handout\]](#)

Environmental	Social	Economic
<i>Environmental aspects affect the natural systems on which life depends, now and in the future.</i>	<i>Social aspects affect the social systems on which communities depend, now and in the future.</i>	<i>Economic aspects affect the health of the markets on which commerce depends, now and in the future.</i>
+ biodiversity preservation	+ anti-discrimination	+ fair dealings
+ climate adaptation	+ community engagement	+ innovation research / investment
+ resource optimization	+ diversity/equal opportunity	+ open competition
+ soil health stewardship	+ employee engagement	+ transparency of information
- acidification	+ equal remuneration	+ use of diverse suppliers
- desertification	+ fair trade	+ use of HUB zones
- eutrophication	+ freedom of association	+ use of local suppliers
- freshwater pollution	+ grievance & remedy processes	- conflicts of interest
- greenhouse gas emissions	+ human rights	- corruption (bribery, extortion)
- habitat depletion	+ indigenous rights	- dividing territories
- human health impacts	+ occupational health & safety	- dumping
- land use change	+ right to collective bargaining	- exclusive dealing
- marine pollution	+ sustainable compensation	- misleading market claims
- ozone depletion	+ training and education	- seller collusion
- radiation pollution	+ worker rights	- buyer collusion
- resource depletion	- child labor	- patent misuse
- smog	- forced/compulsory labor	- price fixing
- waste	- human trafficking	- product tying
- water consumption	- sourcing from conflict zones	- refusal to deal

Target Audiences and Uses

This *Guidance* is for purchasing organizations and other organizations and industries who affect—and are affected by—supply chains of purchased goods and services, such as: product and service suppliers, standards and certification developers, and public interest advocates.

Purchasing Organizations

This *Guidance* is for any organization that wants to improve the environmental, social, and economic impacts within its purchasing supply chain. It is not intended for any one professional within an organization. Rather, **the *Guidance* demonstrates the pertinent actions that an integrated, multi-stakeholder group within an organization must take in order to be most successful.**

As such, the *Guidance* often refers to the following roles within a purchasing organization:

- Senior leadership (C-Suite)
- Sustainability staff
- Purchasing staff
- Procurement professional
- Product specifier
- Program and Business Unit staff
- Supplier

Suppliers of Products and Services

A supplier of products and services could use this *Guidance* to support leadership in sustainable purchasing through the following actions:

- **Understand, engage, and invest in research and development** based upon the relevant environmental, social, and economic impacts of its products and services.
- **Provide products and services** that exceed industry standard performance along quantifiable environmental, social, and economic metrics (defined elsewhere in this document).
- **Meet or exceed credible standards, provide transparent and accurate claims, and seek third-party validation** of relevant environmental, social, and economic supply chain impacts and claims.
- **Demonstrate** how products and services may help purchasers achieve strategic objectives and environmental, social, and economic performance targets.
- **Track, evaluate, and report metrics and non-competitive insights** on product and service performance related to environmental, social, and economic impacts, using clear, transparent and easy-to-interpret methods.

Public Interest Advocates

Public interest advocates could use this *Guidance* and support leadership in sustainable purchasing through the following actions:

- **Raise awareness of relevant environmental, social, and economic impacts** of products, services, or specific aspects of the supply chain in which the organization is a recognized expert.
- **Invest in the research and development of quantitative metrics** for environmental, social, and economic impacts, where no such metrics exist.
- **Advocate for and promote suppliers** of products and services that invest in research and development and demonstrate progress on relevant environmental, social, and economic supply chain impacts.
- **Advocate for public and private incentives** for the research, development, and delivery of products and services that improve relevant environmental, social, and economic impacts and accelerate return on

investment for purchasers.

Standards and Certification Developers

A standard or certification developer could use this *Guidance* to support leadership in sustainable purchasing through the following actions:

- **Harmonize, where appropriate, standards and certification programs** with identified environmental, social, and economic impacts.
- **Invest in the research and development of quantitative metrics** for environmental, social, and economic impacts, where no such metrics exist.
- **Evaluate and promote suppliers** of products and services that have been validated to meet or exceed industry standard performance on relevant environmental, social, and economic impacts.

Market Sectors that will find this guidance useful...

- National Governments
- State and Provincial Governments
- Local Governments
- Higher Education Institutions
- K-12 Education Institutions
- Healthcare
- Corporate
- Service Providers
- Retailers
- Manufacturers

Integrated Approach and Process

This *Guidance* promotes the use of an integrated approach for developing a comprehensive and strategic Sustainable Purchasing Program, including four key components:

1. **Integration of a team** in the early stages of the process (Chapter 2);
2. **Challenging assumptions** and the status quo of current standard operating procedures related to procurement (Chapter 3);
3. **Continued collaboration** throughout various phases of creating and implementing an action plan (Chapter 3); and
4. **Iteration** of the process to improve on the environmental, social, and economic performance of purchasing (Chapter 3).

This *Guidance* details the implementation of these concepts through specific steps, such as:

- **building support** and setting goals for a strategic sustainable purchasing program
- structuring **stakeholder engagement**
- setting a reasonable scope to implement initial program
- quantifying entire spend within the defined scope
- selecting the most appropriate method for analyzing spend
- choosing decision-making criteria to evaluate, prioritize, and **select actions that can save money and add value**
- **identifying actions** to address significant impacts of spending
- setting **performance metrics**
- **implementing** the plan

- measuring and reporting results, and
- promoting **continuous improvement** of the sustainable purchasing program

Product Performance

There is a common perception that sustainability improvements may result in performance losses or cost increases. This *Guidance* suggests that leadership organizations should seek to avoid unnecessary compromise and ask the marketplace to deliver innovations that offer functional performance, environmental stewardship, social responsibility, and cost parity.

Leaders in sustainable purchasing are those organizations that request, of their suppliers, that functional performance not come at the expense of environmental damage, community costs, or worker health and safety. Likewise, advances in environmental or social performance should not come at the expense of functional performance or total cost of ownership.

There may still be times, however, when no existing market solution meets both technical performance requirements and sustainability objectives. In such cases, an organization may have to choose an appropriate compromise based on its own priorities. In these circumstances, SPLC's *Principles for Leadership in Sustainable Purchasing* ask leadership organizations to call on the marketplace to innovate and adopt better solutions in the future. This could mean providing suppliers and buyers with an incentive to innovate, joining a collaborative effort to raise standards, or other strategies developed by the purchaser.

Various sections within Chapter 4 discuss product performance considerations in more detail.

Supplier Diversity

Ensuring that contracting opportunities are accessible to diverse suppliers is a key part of promoting the health and resilience of local and global economies. Collectively, these businesses drive significant job creation, and are hotbeds of product and service innovation.^[1] By broadening the diversity of its supply base, an organization can help strengthen the economy while at the same time gaining access to new ideas, increasing competition, receiving greater value for money, and better serving and reflecting its customers and communities.^[2]

The use of sustainability criteria, in and of itself does not present a unique challenge for supplier diversity. When given the chance, small and medium sized suppliers regularly demonstrate an ability to compete on whatever performance criteria is important to their customers. This includes earning necessary third-party certifications, whether for safety, quality control, sustainability, or any other criteria. However, there are times when supplier diversity goals and broader environmental, social, and economic supply chain performance goals can appear to be in competition. For example, the financial impact of attaining a social or environmental certification may be greater for small or medium sized business than for their larger competitors.^[3] Does that then mean that preferring products with better environmental, social, and economic performance deters the use of diverse suppliers?

However, when purchasers send mixed signals to the marketplace about what qualifies as sustainability leadership within a purchasing category, small and medium sized enterprises in that category are disadvantaged because they cannot match a large organization's capacity "to be everything to everyone." The Purchasing Category Guidance found in Chapter 4 was developed by volunteer Technical Advisory Groups (made up of purchasers, suppliers and public interest advocates) in an effort to provide purchasers and suppliers alike with clarity and consistency on what represents environmental, social, and economic leadership in a given category. If purchaser demand coalesces around these shared definitions of leadership, then suppliers can focus their efforts and financial resources more effectively, which will help level the playing field for small and medium suppliers.

Similarly, the burden of replying to numerous similar-but-different supplier sustainability surveys weighs heaviest on small and medium sized suppliers. Suppliers of all sizes are better able to focus on what matters

most when they can report their sustainability performance data to many purchasers at once via shared reporting frameworks and database platforms. There is guidance in Chapter 3 on how purchasers can find shared survey platforms that may meet their needs.

Programmatically, the Council recognizes that small and medium sized businesses often do not have ready *access* to specialized sustainability expertise and resources; this is different than lacking the *ability* and *willingness* to achieve high environmental, social, and economic performance. Of course, this problem is not unique to matters of sustainability. Organizations with supplier diversity programs have long recognized the need to provide small and medium sized suppliers with access to training and technical assistance on how to meet their organization's performance expectations.^[1] As a result, suppliers regularly respond with exemplary ability and willingness. The Council is interested in exploring how it can most effectively partner with purchasers and supplier diversity councils to make sustainable purchasing training programs and resources based on SPLC's Guidance available to diverse suppliers.

The Council is committed to promoting supplier diversity in its guidance, events, community of practice, and via its planned rating system. The Council believes strongly that sustainability will increasingly be a competitive requirement in procurement, and that leadership means both finding ways to increase the use of diverse suppliers and improving environmental, social, and economic performance in a holistic fashion."

^[1] The Council encourages organizations to expand their current supplier diversity technical assistance programs to include sustainability, if they have the capacity to do so. An example of this is PG&E's Diverse Suppliers Go Green Program. Their resources are freely available online: (<http://www.pge.com/en/b2b/purchasing-supplychainresponsibility/gogreen/index.page>).

^[1] US Small Business Administration FAQ, March 2014 (<http://tiny.cc/1cg5rx>)

^[2] Supplier Diversity Europe website (<http://tiny.cc/e5jdsx>)

[3] Not all diverse businesses are small or medium in size, but the vast majority of all types of businesses are small and medium enterprises (<http://tiny.cc/1cg5rx>), so the majority of businesses with diverse ownership encounter the challenges addressed here.

Types of Diverse Suppliers

- Small and medium sized
- Locally owned
- Women owned
- Minority owned
- Aboriginal owned
- Veteran owned
- LGBT owned
- Service-disabled veteran owned

Note: Naming conventions and definitions vary between regions and organizations

Certifications and Standards

Certifications and standards play an important role in supporting institutional leadership in sustainable purchasing. At their best, sustainability-oriented labels, standards, and certifications translate expert knowledge about the most significant impacts associated with a particular product category—and about best practices that meaningfully address those impacts—into a consistent, practical framework for decision making.

Within Chapter 4, this Guidance attempts to communicate the extent to which various certifications and prod-

uct labels evaluate and measure the most significant environmental, social, and economic impacts of relevant products or services. This allows purchasers to align the certifications they specify with the most significant impacts in the product and service categories from which they buy.

Looking forward, the Council's Rating System will value any action based on its ability to address the most significant environmental, social, and economic impacts associated with a particular purchasing category. This includes, but is not limited to, the use of certifications or standards (e.g., the use of a particular certification or label for a certain percentage of overall spend within a category). Depending on the extent to which a particular action addresses the significant impacts of a product or service, the points attributed within the Council's rating system may vary. To this extent, development of the Rating System is expected to involve identifying those certifications, standards, or labels that are most likely to advance leadership in sustainable purchasing within a particular category.

Packaging

Purchasing strategies focused on the environmental, social, and economic performance of packaging or packaging systems can deliver benefits, though the Council generally would not expect these benefits to be more significant than strategies focused on the goods and services procured. The Council does not include packaging reduction strategies within the purchasing category sections, and recommends that in cases where packaging does indeed represent a significant share of their purchasing impacts, purchasers should work with their suppliers to reduce or redesign the packaging using the Sustainable Packaging Coalition's [Design Guidelines for Sustainable Packaging](#).

Sustainable purchasing applies to all purchasing, not just consumable goods.

According to this *Guidance*, an organization exercises leadership in sustainable purchasing by taking responsibility for *all of the consequences of all* of its goods and services spending, not only its goods spending, and certainly not only its consumables spending.

Leaders in sustainable purchasing recognize that they have an opportunity to shape the entire economic signal that they send into the marketplace, which includes purchases for non-goods, such as electricity, fuel, professional services, and so on. By sending the right economic signals, they can focus market innovations toward a sustainable future in these important sectors.

This *Guidance* helps organizations to understand the full extent of their opportunity to contribute to a positive future through their leadership attitude toward all spending, whether on goods or services, durables or consumables.

2 Program Design



Chapter Overview

This chapter helps sustainable purchasing champions within an organization build stakeholder and management support for implementing a strategic and leadership-capable Sustainable Purchasing Program at their organization.

Given the diversity of management roles and titles across sectors, this Guidance uses “management” to refer to an organization’s senior decision-makers. Depending on the decision to be made and the size and type of organization, “management” could be a Chief Executive Officer, President, Mayor, Chief Procurement Officer, Chief Operating Officer, Vice President, Dean, Commander, Director, Manager, and so on. Readers should determine who at their organization would be the appropriate member of management to make the type of decision being discussed.

Chapter Organization

This chapter guides a progression of activities that naturally build momentum towards an organizational commitment to the implementation of a Sustainable Purchasing Program:

- The Champion **prepares a vision** for what the organization’s Sustainable Purchasing Program could be and do for the organization and society.
- The Champion shares that vision with key stakeholders in order to **enlist their support** in refining the vision and promoting it to management.
- Together, the key stakeholders **design a [Program Plan](#)** for bringing the program into existence.
- The key stakeholders work with management to win the organization’s **commitment to the Program Plan**.

In this chapter, “key stakeholders” are defined as those people with influence, skills, or roles relevant to designing and winning management support for a Program Plan. The term does not include everyone that could be affected by a Sustainable Purchasing Program.

What Is the Champion’s Role?

In this Chapter, the capitalized word “Champion” is used to identify the person who volunteers or is tasked with building organizational support for creating and implementing a Sustainable Purchasing Program Plan. A generic term is needed because, in practice, sustainable purchasing advocates come from all types of roles within organizations: procurement professionals, sustainability staff, senior leaders, operations staff, budget holders, and so on.

The Champion's primary role is to build the necessary cross-functional and management support for implementing a Sustainable Purchasing Program successfully. Many sustainable purchasing efforts flounder without a Champion to do that legwork, because sustainable purchasing work requires cross-functional cooperation.

Preparing to Champion

Champions are strongly encouraged to read Chapters 1-3 in their entirety, and **specifically spend time understanding the process and concepts within Chapter 3: Run the Program**. Additionally, Champions should familiarize themselves with relevant sections of Chapter 4.

Chapters 1-3 define the full *process* that the Council recommends organizations utilize to strategically address all significant environmental, social, and economic consequences of its spending. Having the whole picture will significantly ease implementing each step in the process. Chapter 4 provides recommendations for specific purchasing categories that will be useful to reference during several of the process steps described in Chapters 1-3.

Use this Guidance to Collaborate

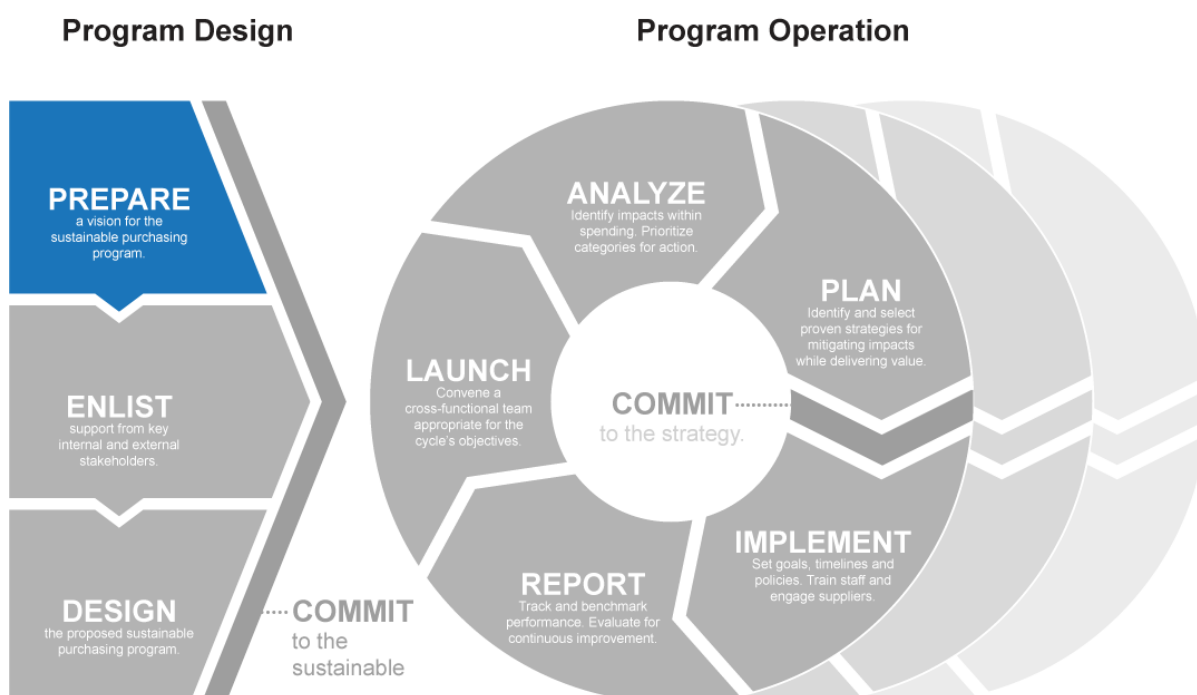
Given that you're reading this document, there's a good chance the Champion at your organization is you!

But what if you don't have the time to do the legwork described in this chapter? For example, you might be a very busy Chief Sustainability Officer who knows sustainable purchasing is important but cannot take on anything else.

The information in this chapter is intended to ease the process for Champions to share the load by recruiting—or even assigning—additional people to help build cross-functional and management support for implementing an outstanding Sustainable Purchasing Program.

This is a playbook that you can share and work from together as a team.

PREPARE the Program Vision



Purpose

This section guides Champions in developing a vision for their organization's Sustainable Purchasing Program, so they can share it with key stakeholders when enlisting their support.

Benefits

- Builds the case for why the organization needs and would benefit from a Sustainable Purchasing Program.
- Develops a “straw man” program vision that articulates how the Sustainable Purchasing Program could operate.
- Prepares initial answers to questions commonly encountered when advocating for a Sustainable Purchasing Program.

Process

Champions should expect to encounter the following question when advocating for a Sustainable Purchasing Program:

1. **Why** does the organization need a Sustainable Purchasing Program? What organizational needs, values, or priorities would it serve?
2. **How** would a Sustainable Purchasing Program meet those needs? How would it be organized? What would it do?

Once a Champion has developed a clear picture of how they would answer the questions, they should draft a summary to share and reference during the stakeholder engagement process in the “Enlist” phase.

Benefits of Sustainable Purchasing

The following list of financial, management, environmental, and socio-economic benefits of sustainable purchasing is adapted from BuySmart Network's [Guide to the Business Case & Benefits of Sustainability Purchasing](#), which contains many supporting case studies.

Financial

- Reduces costs
- Enhances image and brand
- Eases regulatory burden

Management

- Aligns purchasing with organizational goals and values
- Reduces business risks
- Improves supplier relationships
- Advances market and product innovation
- Improves human resources performance

Environmental

- Reduces and prevents waste
- Reduces resource use
- Reduces pollution and toxins
- Reduces greenhouse gas emissions
- Maintains biodiversity

Socio-economic

- Improves wage levels and working conditions
- Advances human rights
- Improves employee health and safety
- Develops markets for sustainable products
- Promotes a strong local economy
- Supports vulnerable groups
- Provides community services
- Reduces public expenditures
- Promotes economic opportunity and benefit-sharing
- Improves conditions in the developing world

CASE STUDY: Environmentally Preferable Purchasing Saves the Commonwealth of Massachusetts \$28M

2015 marked the 20th anniversary of the Commonwealth of Massachusetts' Environmentally Preferable Products Procurement Program (EPP Program). The Program's primary goal is to leverage the Commonwealth's purchasing power to procure goods and services that have a lesser or reduced negative effect on human health and the environment when compared with competing products or services that serve the same purpose. Since the Program's inception, thousands of EPPs have been incorporated into more than 40 Statewide Contracts (SWCs) and the state's purchases of these goods and services have grown from \$5 million in 1994 to more than \$385 million in Fiscal Year 2015 (FY2015).

Massachusetts estimates that it saved more than \$28 million in cost savings in FY 2015 through reduced energy use, labor costs, or initial purchase costs - up from \$18 million in FY 2014. Massachusetts is one of the few states that supports a dedicated staff person in the procurement program to facilitate environmentally preferable product (EPP) and service purchases. Clearly, they are getting a great return on that investment!

Comparison of FY2014 and FY2015 Savings Calculations, Reduction in Metric Tons of Carbon Equivalent, and Tons of Waste Diverted		
	FY2014	FY2015
COST SAVINGS	\$18 M	\$28 M
REDUCTION IN METRIC TONS OF CARBON EQUIVALENT (MTCE)	106,500 MTCE	190,686 MTCE
WASTE SENT FOR RECYCLING	17,500 tons	19,222 tons

In addition to saving the state money, the EPP efforts led by Massachusetts over the last 20 years have helped raise the bar on the quality, cost, and availability of environmentally preferable products, and also have driven prominent changes in the marketplace to more sustainable business practices.

Download [Massachusetts' EPP Case Study](#) from SPLC's [Case Study Library](#) to get the full details.

Focus on benefits that advance existing organizational priorities and needs.

The benefits that will be most compelling to stakeholders across the organization—and to management—will be those that help the organization achieve its existing goals. Sustainable purchasing may not be viewed as a priority if it isn't clear how it advances existing organizational priorities.

A Leadership Vision for “Why?”

A leadership vision is big picture. As Champions set out to define a vision for their organization's sustainable purchasing program, they should certainly articulate the ways the program will benefit their organization. But if they want to create a leadership-oriented program, they should also consider the big picture.

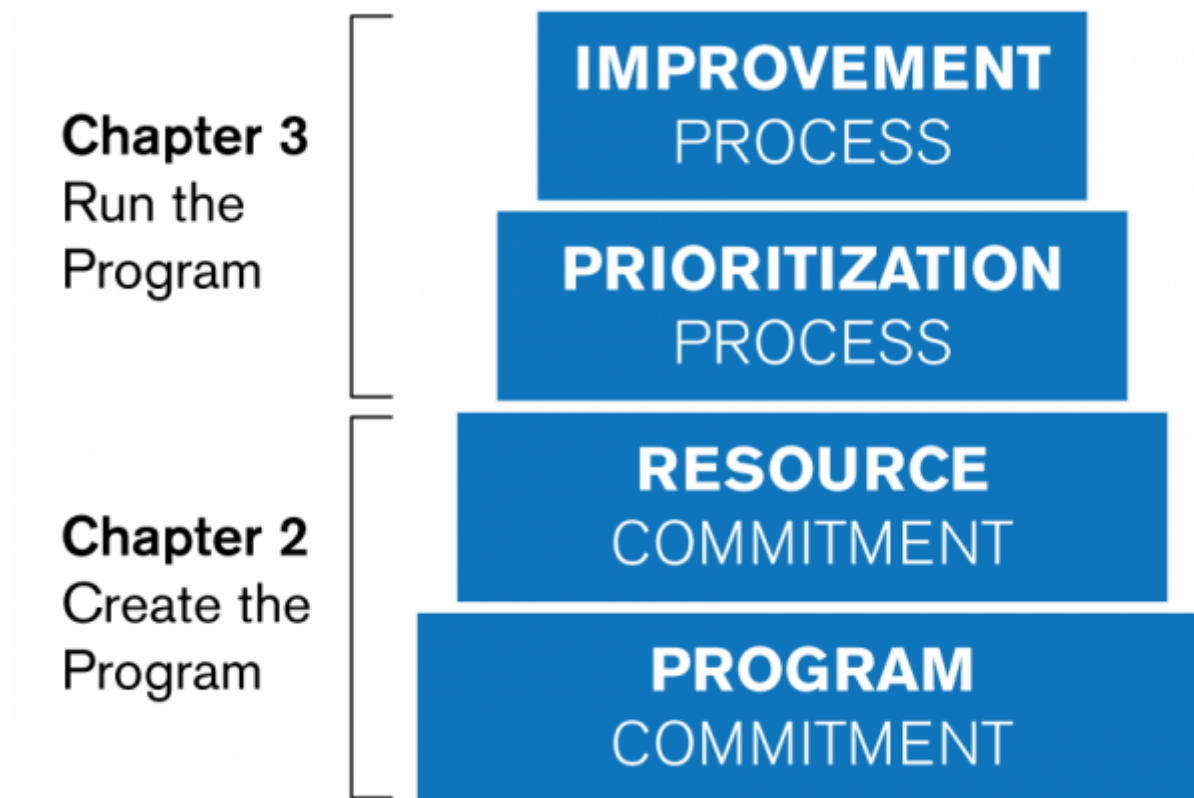
Leadership organizations answer the question, “**Why** do sustainable purchasing?” in a context larger than their own organization: “Because we have a responsibility to future generations.” “Because stewarding the communities we are part of matters to us.” “Because we care about hidden risks and impacts in our supply chain.” “Because marketplace innovation benefits us all.” The key is that *leadership organizations* answer the question, “Why?” in a way that recognizes their organization is part of and dependent upon the health of larger social, environmental, and economic systems. It is this broader view that leads them to be trailblazers or key collaborators in areas where action is needed to ensure the longterm health of the systems on which we all depend.

Similarly, SPLC defines leadership in sustainable purchasing in terms of an organization's ability to use its market influence to strengthen the environmental, social, and economic systems on which we all depend. That is what this Guidance means by the “environmental, social, and economic performance of purchasing.”

Refer to [A Broader Context for Sustainable Purchasing](#) for an overview of the types of environmental, social, and economic aspects that can inform an organization's Sustainable Purchasing Program vision.

The Four Components of a Sustainable Purchasing Program

The Council considers four components to be required for a Sustainable Purchasing Program to be capable of achieving genuine leadership:



The Program's work is primarily accomplished through a **continuous improvement process**, which rests on the solid foundation of:

- a high-level organizational **program commitment**;
- a **commitment of resources** to run the program;
- and a **prioritization process**, which ensures those resources are applied strategically within the continuous improvement process.

This chapter, Chapter 2, focuses primarily on the program and resources commitments, while Chapter 3 focuses on the processes.

Commitment. The high-level program commitment provides political capital, which is necessary to achieve the level of sustained cross-functional cooperation and external stakeholder engagement required to address the biggest environmental, social, and economic performance challenges in an organization's supply chain.

Resources. Naturally, the commitment of resources is essential; little meaningful program planning and implementation can take place without it.

Prioritization. As [described in Chapter 1](#) and [Chapter 3](#), prioritization is essential for leadership, because leaders deliver substantial benefits for their organizations and the world by focusing their efforts on those areas with the greatest opportunity for improvement.

Continuous Improvement. And finally, directing the Program's energies into an iterative continuous improvement process recognizes the essential truth that sustainable purchasing is an iterative process that never finishes. Procurement professionals familiar with Strategic Sourcing will recognize this parallel between optimizing cost and optimizing environmental, social, and economic performance: there are always further and new opportunities to make improvements and realize benefits.

Many Pathways to a Complete Program

Many organizations using this *Guidance* may already have in place one, two, or three of the four components of a leadership-oriented Sustainable Purchasing Program. And organizations just getting started may already have support for one or more of those components. There are many pathways by which an organiza-

tion can grow their existing efforts into a complete Program. The “Design” section of this chapter focuses in detail on how to move from an existing set of activities to a strategic program.



Scenario #1: Build on Existing Efforts

An organization could already have an initiative addressing a specific area of purchasing (e.g., wood and paper products, IT, etc.) or an aspect of their whole supply chain’s environmental, social, and economic performance (e.g., supplier diversity, GHGs, etc.). The organization could apply the Strategy Cycle to that initiative as a pilot project. As the organization gains familiarity with the Strategy Cycle and its benefits, it will become more comfortable committing resources to a Sustainable Purchasing Program that continuously prioritizes and supports the application of the Strategy Cycle to other areas of the supply chain.



Scenario #2: Respond to Management

An executive or political leader may have decided, “We should have a sustainable purchasing program,” and directed staff to create one. In this case, management commitment exists, but it needs to be turned into a program commitment. This is a good problem to have! In such a case, this Guidance will provide a useful roadmap for designing an effective program.



Scenario #3: Start with Prioritization

An organization may have conducted a sustainability materiality assessment* to prepare their annual sustainability report. In the process, they discovered that specific areas of their supply chain present significant sustainability concerns. Thus, the assessment demonstrated the need for a Sustainable Purchasing Program to proactively manage these issues and provided a prioritization to guide the application of the Strategy Cycle. The organization could then establish and resource a Sustainable Purchasing Program to support continuous improvement of supply chain performance.



Scenario #4: Start with Resources

A university receives a charitable contribution to support their sustainability efforts. They may decide to invest resources in a Sustainable Purchasing Program right away; or, they may first run a prioritization process to better understand their supply chain's current environmental, social, and economic performance and demonstrate the need for an ongoing Program. Either path is valid.

Champions should think now about what pathway likely makes the most sense for their organization. It may be helpful to proactively include a preview of that pathway when talking with key stakeholders. Many stakeholders will support the big picture vision, but have doubts about how to get there.

* A materiality analysis identifies areas of an organization's activities that affect the organization's ability to create, preserve or erode economic, environmental and social value for itself, its stakeholders and society at large. Increasingly, sustainability reporting frameworks require organizations to conduct materiality assessments in order to determine what parts of their activities should be covered in their sustainability reports. (<http://tiny.cc/vuuesx>)

Is a Program Necessary?

Simply enumerating the benefits of sustainable purchasing does not-by itself-make the case for creating a *program*. Some benefits of sustainable purchasing can be realized without a formal program, but the experience of SPLC members suggests that the strategic intention that comes from defining how a program will be run *and evaluated* is essential to *leadership*.

A well-designed Sustainable Purchasing Program will increase the chances that an organization's sustainable purchasing efforts will achieve the benefits described and advance organizational goals, including sustainability goals. The following table shows typical outcomes for organizations that have proceeded on an *ad hoc* basis, compared to those who have invested in a coordinated program.

Typical Outcomes with a Program

Management understands and supports the work

Strong cross-functional cooperation

Sustained communication with stakeholders

Resources are available for strategic planning

Benefits are tracked, aggregated, and reported

Proactive management of supply chain risks

Typical Outcomes without a Program

Frustration over lack of management commitment

Silos thwart substantial progress

Transient communication with stakeholders

Limited capacity to plan strategy

Evidence of benefits is anecdotal

Reactive management of supply chain risks

Ability to tackle big, challenging issues

Efforts are focused on the greatest opportunities to achieve significant benefits or improvements

Understanding of biggest risks and opportunities

Biggest issues are out of reach, unless easy

Effort expended on initiatives that don't achieve significant benefits on performance improvements

Blindness to biggest risks and opportunities?

Program complexity may vary.

While this *Guidance* suggests that Sustainable Purchasing Programs should have the above components, each organization's implementation of those components could be as elaborate or lean as appropriate for their organizational context. For a Fortune 500 company, the resources required to run the Program will almost certainly include dedicated sustainable purchasing staff. For a small business, significant strides could be made with a fraction of one or more staff members' time. In the "Design" phase, later in Chapter 2, the Champion and key stakeholders will determine the appropriate level of complexity and resource intensity for their organizational context.

The Role of the Strategy Cycle

As described in detail in [Chapter 3](#), this *Guidance* recommends a structured process – the "Strategy Cycle" – to guide the prioritization and continuous improvement processes. The Strategy Cycle is simply a sustainable purchasing focused version of a typical Plan-Do-Check-Act management process. It involves:

1. convening appropriate stakeholders for a prioritized issue area or area of spend,
2. analyzing relevant spend and studying other factors that affect environmental, social, and economic outcomes in the area of focus,
3. identifying solution strategies that could meaningfully improve performance in that area and organizing the most promising of those projects into a cohesive action plan (a "Strategy Plan"),
4. winning management's commitment to support the plan,
5. implementing the plan, and
6. tracking and reporting out the plan's financial, environmental, social, and economic performance to the stakeholder team as well as other audiences. This data can be used to launch additional analysis, action planning, and implementation cycles.

The Strategy Cycle structure reliably supports strategic decision-making, while remaining flexible and scalable to the specific needs and challenges of an organization.



Become familiar with this Guidance.

Reading Chapters 1-3 and getting familiar with Chapter 4 will give Champions a command of the overall approach recommended by this *Guidance*. There is no point in the process more strategic for investing time to understand the full approach than during this visioning step.

Visioning with SPLC's Principles

One of the most challenging aspects of winning a high-level commitment to a Sustainable Purchasing Program can be defining sustainable purchasing—and further—*leadership* in sustainable purchasing. To address this challenge, the Council developed a set of [Principles for Leadership in Sustainable Purchasing](#) that can be used to build common understanding, both internally and with the broader community.

Because the *Principles* represent the consensus of a leadership body, they can bolster the credibility of a Champion's vision when engaging stakeholders and seeking high-level support from management. Leaders can have confidence that a Program based on the *Principles* will be credible, rigorous, and leadership-oriented.

Organizations using the Council's *Principles for Leadership in Sustainable Purchasing* as the basis for their Sustainable Purchasing Program can be certain that all of the Council's guidance, trainings, community of practice, meetings, and other programs will be readily applicable to their Program.

QUESTIONS FOR VISIONING

Questions for Visioning

- What benefits of sustainable purchasing would be most compelling to different stakeholders across the organization and in management?
- How can a Sustainable Purchasing Program support specific organizational goals or priorities?
- Is the organization already working on addressing any of the aspects of environmental, social, and economic performance included in the Council's list above?
- If resources were not an issue, how would the Program operate and who would be involved? What's would be an ideal vision for the Program?
- Recognizing that resources are an issue, how could the Program grow into that ideal vision, starting with what's possible now?
- After reviewing the prioritization guidance in the Chapter 3 Overview, what seems like the most viable

path for determining initial priorities for the Program?

- How can the Council's *Principles for Leadership in Sustainable Purchasing* be useful in visioning and communicating that vision to others?

Preparing to Share the Program Vision

At this point, the Champion should write up their vision for the Sustainable Purchasing Program, articulating the needs that it will serve and how it will do it. This document will serve as a “straw man” for the Program Plan that will be developed with the input of key stakeholders over the next few steps. It can be helpful to share this document with key stakeholders as part of inviting them to participate in the following steps.

Template: Program Need and Vision Summary

Our organization should establish a Sustainable Purchasing Program modeled on current best practices (as defined by the Sustainable Purchasing Leadership Council), because it would produce the following benefits:

(itemize benefits)

This would advance the following current or future organizational priorities established by management:

(list organizational priorities)

There are many ways such a Program could be organized. To seed the conversation, here is one possible vision for how it could work at our organization:

(describe vision)

One possible pathway by which the organization could build up to that vision is as follows:

(describe pathway)

End of Section Checklist

- Benefits of and needs for a Sustainable Purchasing Program identified
- Vision developed for the Program and its development
- Summary prepared describing benefits, needs, vision, and program development pathway

Enlist Stakeholders



Purpose

This section guides Champions in identifying key stakeholders whose support and input can help the Champion take their vision from an idea and transform it into a concrete Program Plan that is likely to win commitment from management.

Benefits

- Identifies who can help the Champion turn their vision into a Program Plan that can win management's commitment.
- Builds support for the Program by giving key stakeholders a sense of ownership.
- Develops tailored messages for effectively engaging key stakeholder groups.

Confirms key stakeholders' willingness to participate in the Program Plan design process, allowing that process to begin!

Step 1: Identify key stakeholders

The Champion identifies the key stakeholders whose support and input they need to transform their vision for a Sustainable Purchasing Program into a formal Program Plan that can win support.

Identifying Key Stakeholders

At this phase, the goal is to continue to refine the Champion's vision into a functional plan that can win the commitment of management. Who are the stakeholders who would be key for that?

People with influence. Their support or objections would meaningfully influence management's decision to commit to the Program Plan. Examples: *Major budget holders, managers of departments that would play a leading role, such as the Chief Procurement Officer, students and faculty at a university, etc.*

People already doing a piece of the work. They are natural allies and contributors, when not blindsided! Examples: *Staff in sustainability, procurement, supplier diversity, environmental health and safety, risk management, etc.*

People with specialized skills or wisdom. Their input will lead to a Program Plan design that is more likely to win management commitment and successfully change purchasing in meaningful ways. Examples: *Procurement data expert, energy manager, city planner, etc.*

The management decision-maker(s). They will ultimately decide if the organization commits to the

Step 2: Plan engagement process.

The Champion plans the stakeholder engagement process through which key stakeholders will be invited to participate. The stakeholders will help the Champion to think through the Program design considerations posed in the “Design” section of this chapter, below, in order to develop a formal Program Plan that is ready for management commitment.

Goals of the Process. The primary goals of stakeholder engagement at this point are to:

- **Get input** that can refine the vision for the Sustainable Purchasing Program into a formal Program Plan; and
- **Obtain support** of key stakeholders for the Program Plan.

Potential Engagement Processes

- **Piggyback** on an existing stakeholder processes (e.g. organization-wide sustainability committee or purchasing committee)
- Make **presentations** to key stakeholder groups
- Form a **committee** or **ad hoc team** to collaborate on the Program Plan design
- Organize a **workshop**
- One-on-one **meetings**

Collecting Input

A 2-step process. Collecting input from key stakeholders is a two-step process: First, the Champion must plan an efficient engagement process through which stakeholders can provide input. Second, they must convince busy stakeholders to participate! (See Step 3)

Varies by context. The most efficient stakeholder engagement process will vary depending on organization size and type, and the Champion’s role within it. In a small organization, a few one-on-one meetings may be all that’s required. Or, if the Champion is the CEO, it could be as simple as making it an agenda item for one or more meetings of the executive team. In a large organization, something more elaborate may be required, such as convening the key stakeholders for a daylong workshop that features best practice presentations from sustainable purchasing experts and peers in the morning, followed by planning conversations in the afternoon.

A combination of strategies. In most cases, the stakeholder engagement process will involve a combination of strategies, such as one-on-one meetings that build momentum towards a planning workshop.

Obtaining Support

A sense of ownership. An effective stakeholder engagement process leaves the key stakeholders with a sense of ownership and investment in the Program Plan. Without that sense of investment, the key stakeholders may not rise to voice their support for the Plan when management is considering approving it.

Importance of group dialogue. While it is possible to receive key stakeholder input by simply sending out documents and asking for feedback, few people develop a feeling of investment that way. Dynamic dialogues—whether in person or by conference call—where participants have an opportunity to raise objections, hear others’ perspectives, debate choices, and arrive at a shared vision are one of the most effective

ways to build a sense of ownership and investment. Hosting a kick-off meeting—as described in the “Design” section—will provide the opportunity for dialogue.

Alternatives to group dialogue. If coordinating such dialogues with the full stakeholder group is not possible, then the Champion must create that sense of collective ownership. For example, conduct one-on-one or small group meetings, listening to and sharing back the perspectives of others. Stakeholders will understand that they are participating in a peer-to-peer dialogue, the purpose of which is to arrive at a Program Plan *that all the stakeholders will support*.

Step 3: Invite Stakeholders

The Champion invites the key stakeholders to the engagement process they’ve planned, making the case to each that investing in designing a Sustainable Purchasing Program Plan and winning management’s commitment to it will be good for the organization *and* for them.

Learn the language of other departments.

This will require time, research, and finding mentors within different departments. But, it will help Champions effectively make their case when it comes time for the (potentially very short) meeting(s) in which decisions about support will be made. It’s particularly useful to look out for words other departments might use differently (e.g., value, cost, operations, purchasing, procurement, program).

Don’t go in with It “all figured out.”

It’s likely that every department you approach is just as overloaded as yours. The tone you use is important, and conversing with an exploratory tone (as opposed to one that you’ve “found the solution to all problems”) will go a long way. Start the conversation by identifying and understanding others’ challenges, acknowledging that you may not have an immediate solution. Don’t assume that “sustainable purchasing” will necessarily be a solution. It will likely be just one tool in a larger toolkit.

THE BUSINESS CASE AND THE PROFESSIONAL APPEAL

Champions must collaborate. No matter where the Champion sits in the organization’s hierarchy, they must win the support of others in order for the Program to succeed, because leadership in sustainable purchasing requires significant cross-functional collaboration. Even a CEO has to convince the Board, Chief Financial Officer, Chief Operating Officer, and/or Chief Procurement Officer, that investment is worth it.

Business case is necessary. Key stakeholders will be more likely to participate in the planning process if they believe that the proposed Program is a wise use of organizational resources. The business case resources and guided reflections provided in the ‘Vision’ phase at the beginning of this Chapter should have prepared the Champion to clearly communicate **why** the organization needs a Sustainable Purchasing Program and **how** the Program could work.

Business case is insufficient. For various reasons, staff regularly decline invitations to participate in projects that are good for the organization. Therefore, it’s important to go beyond the organizational business case and appeal to key stakeholder groups based on their own professional goals.

Professional case is also necessary. Stakeholders are more likely to participate in planning a program that could aid their own professional work, and if their participation in the design process helps ensure that it does just that. The following sections provide suggestions on how to make this case to key stakeholders in several professional roles.

HOW TO MAKE THE INVITATION

Persuasive invitations can be delivered in person, with a phone call, with presentations to professional groups (e.g., at a meeting of Procurement Department staff), or via memos.

Invitations don't need to be elaborate, but they should contain the following key information:

1. **Why** the organization needs a Sustainable Purchasing Program, including the organizational benefits it can provide.
2. **Why** the Program would benefit the key stakeholder's professional work.
3. A summary or outline of **how** such a Program could work.
4. An **invitation** to and instructions for the stakeholder engagement process.

This isn't sustainable purchasing the way consumers think about it.

Everyone is familiar with how difficult it is to identify the "most sustainable" product in a store. When stakeholders first hear about the idea of a sustainable purchasing program they imagine it involves trying to identify the "most sustainable" product for every one of the many things the organization buys. *This misconception can be the source of a lot of resistance.*

It's important to stress that **this Program will not be doing sustainable purchasing the way consumers do it**. Instead, it will prioritize the purchases with the most impact and focus energy on addressing the performance concerns with those purchases. Many organizations that do this prioritization discover that the Pareto Principle applies: 80% of their impacts come from just 20% of their purchases.

TAKING ORGANIZATIONAL CONTEXT INTO ACCOUNT

In preparation for reaching out to stakeholders to build support for a Sustainable Purchasing Program, it is critical to consider the organizational context that shapes the way staff and management typically initiate, review, and respond to new program proposals. This will help determine the best approach for building support.

The boxes to the right have some questions and suggestions to help anticipate opportunities and challenges that an organization's context may present when reaching out to stakeholders across the organization.

MANAGEMENT CONTEXT

Question: What are the organization's existing strategic initiatives?

Suggestion: Making the linkages between the benefits of a Sustainable Purchasing Program and existing strategic initiatives will be particularly influential when engaging stakeholders in management.

Q: Does the organization currently face a reputational issue that a Sustainable Purchasing Program could help address?

S: Show stakeholders how a Sustainable Purchasing Program could help the organization react to the current issue, and, enable it to proactively address such issues going forward.

Q: Does the organization have established protocols for proposing new initiatives? Or, it is a more informal process?

S: If management has established protocols, leverage them. Sometimes, however, protocol can be an impediment to progress. In such cases, continuing to build broad stakeholder support can help the proposal find advocates who can help move it through the process faster.

Q: Is the organization supportive of bottom-up initiatives? Is there an example of a successful bottom up initiative at the organization? Who led that initiative? What could you learn from them?

S: If management supports bottom up initiatives, consider spending more time building support with other departments prior to approaching management, in order to show bottom up buy-in. If management doesn't tend to support bottom up initiatives, use the stakeholder outreach process to identify one or more champions in management roles.

OPERATIONAL CONTEXT

Question: Is the organization's operations organized into semi-autonomous units (e.g., franchises, hotels, or campuses)?

Suggestion: In this case, it may be strategic to look for willing leaders at one or more operational units to pilot the Program's approach, and then help advocate the Program idea "up and out" to the rest of the organization.

Q: Does the organization tend to "work in silos" (i.e. little cross-functional collaboration)?

S: Even in the most siloed organizations, there are usually a few successful cross-functional initiatives. Look for a successful cross-functional initiative that the Program could either plug into (e.g., an organization-wide sustainability committee) or be modeled after. Ask the originators of successful cross-functional initiatives how they built support.

Q: Are there recent or planned changes in organizational operations? (e.g. department expansions or consolidations, layoffs, new areas of focus, leadership changes, etc.)

S: Consider if these changes could present a challenge or an opportunity for building support for a Sustainable Purchasing Program. For example, new leaders will often give audience to more new ideas early in their tenure.

Q: Would the program require the support of any stakeholders that are notoriously difficult to work with?

S: Seek advice and mentorship from someone who has figured out how to work effectively with that stakeholder. If the stakeholder has a generally pessimistic or apathetic attitude, try to address those feelings proactively. For example, show them how sustainable purchasing gives them power to create real, positive change in the world.vvvv

APPEALING TO MANAGEMENT

Consider ways to tie the Sustainable Purchasing Program into **existing leadership priorities**. Consult your organization's Strategic Plan or—other guiding documents and policies—for a current list of priorities.

Identify the ways the organization **already addresses sustainable purchasing**, and emphasize this as an opportunity to enhance the internal visibility, credibility, and perceived strategic value of existing efforts.

Request management commit to a **process that will result in a Sustainable Purchasing Plan**. This provides the support you need to lead a cross-functional team through the plan development process.

Share **brief and specific examples** of how a Sustainable Purchasing Program can deliver better results

than a contract-by-contract approach. Examples should demonstrate the benefit of using cross-functional knowledge to implement high ROI opportunities.

Specify particular asks, decisions, and a timeline from management. Consider which decisions need their involvement, and limit additional information.

If necessary, consult a colleague you know—or can be connected to—management throughout the preparation of this briefing.

APPEALING TO SUSTAINABILITY STAFF

It may seem easy to win the support of sustainability staff, but these teams can be understaffed and may have multiple competing priorities.

Therefore, the structure of the Sustainable Purchasing Program must **reduce the burdens of the sustainability staff** and highlight potential improvements to their work processes. It is important that the sustainability staff understand that they need not be the leaders, but their experience and involvement is critical to the Program's long-term success.

Consider ways to tie this Program into **existing sustainability priorities** (e.g. carbon emissions, zero-waste, green jobs, etc.).

Provide **data showing how large supply chain impacts can be and therefore how beneficial it can be** to incorporate purchasing as part of the organization's strategic sustainability initiatives.

Share brief and **specific examples** of how this Program will reduce their team's burdens. For example, this process will free sustainability staff from getting pulled into the one-off projects that occur when approaching sustainable purchasing in an ad hoc way.

Specify particular asks, decisions, and a timeline for involvement in the planning phase.

APPEALING TO PURCHASING STAFF

Show how sustainable purchasing **saves money** by eliminating waste, using resources efficiently, etc. It is **consistent with their work** to responsibly steward the organization's dollars.

Show how it can **enhance the visibility and perceived strategic value** of things they are *already doing*. (e.g., supplier diversity, buying recycled, etc.)

Share how a Sustainable Purchasing Program will help them **proactively and strategically target** the areas of purchasing with the greatest environmental, social, and economic risks *and opportunities*. Allay any fears that it involves re-evaluating every product and contract.

Connect sustainable purchasing to the **organization's mission**. For example, in a municipal procurement context, it helps create a healthy community and vibrant economy for taxpayers.

Show how sustainable purchasing supports **management priorities or mandates**.

Demonstrate awareness, early and often, of their workload and the difficulty of satisfying their many customers. Bring them resources that **simplify and enhance their work**, such as excerpts of this *Guidance*, training opportunities, and access to knowledgeable peers.

Present it as a **career advancement opportunity**. Purchasing professionals that understand sustainability are increasingly in-demand.

“New” and “exciting” ideas often present risks for procurement professionals. Take those concerns seriously and address them fully. Make it clear that **sustainability doesn’t mean compromising on quality**.

Let them know they are in **one of the most pivotal professions** for the realization of a sustainable economy. Sustainability can add significant meaning to their work.

CONNECTING SUSTAINABLE PURCHASING TO MISSION

Dan Tangherlini, Administrator, US General Services Administration,

Failure to incorporate sustainability into our business model would leave significant savings for the government and the taxpayer on the table at a time when neither can afford it.

See “GSA Administrator Dan Tangherlini on Sustainable Purchasing.” Published May 22, 2014.

<http://youtu.be/UgqpzzgcW98>

APPEALING TO PROGRAM AND BUSINESS UNIT STAFF

Program and business staff members are typically those in charge of standard operating procedures. Because of their role within an organization, it can be challenging to propose changes within the operational context, *particularly if program and business unit staff members have not been engaged in the conversations*. Because this team often holds the budget, it is critical to enlist support from this team from the outset.

Consider ways to connect this Program to **existing priorities** (e.g. financial savings, improved data management) to reduce resistance.

Identify and emphasize the ways various program areas **already address sustainable purchasing**.

Provide **opportunities for their team** to share their standard operating procedures, as well as any recent attempts at improving their procedures.

Demonstrate how the strategic process will meet the needs of their team.

Share **specific examples** of how sustainable purchasing can address their priorities, including saving money, and help the team achieve success.

Specify particular asks, decisions, and a timeline for involvement in the planning process.

Reduce potential resistance by clarifying that **organizational performance is not going to be compromised in the name of sustainability**. The purpose is not to spend money on products marketed as sustainable that fail to meet performance needs.

APPEALING TO GOVERNMENT OFFICIALS AND POLITICAL LEADERS

Promote the establishment of a Sustainable Purchasing Program as a potential accomplishment during their tenure.

Highlight the direct benefits for specific government officials (e.g. announcements, positive public relations opportunities).

Share **examples of peer governments** and agencies that are saving money and meeting citizens’ needs through sustainable purchasing initiatives. (If examples do not exist, demonstrate the leadership opportuni-

ty within the peer group).

Specify particular asks, decisions, and a timeline for involvement.

Communicate in their language (e.g. return on investment, risk management, cost savings, earnings before interest & tax [EBIT], etc.).

APPEALING TO EXTERNAL STAKEHOLDERS

In some situations, it can be helpful to have support from external stakeholders, such as investors, taxpayers, customers, or suppliers. External stakeholders can play a powerful role in obtaining internal support for establishing a Sustainable Purchasing Program. Your marketing department may have strategies or recommendations for an approach to engaging external stakeholders that is right for your organization.

Consider the external audiences most relevant to your organization, and whether having their early engagement would augment the effectiveness of the Program Plan development process.

GETTING STARTED AT LOCKHEED MARTIN

Dan Pleshko, Lockheed Martin, *CPO Keynote Conversation*, SPLC 2014 Summit in Washington, DC

Our sustainability team was very passionate, had a lot of great ideas, and was really trying to push back toward the supply chain team what they needed to do. But, it was just a push: "Here's what you need to do. Here's what we need. Here's the reporting structure." It was just a lot of extra work outside the business rhythm of what the [supply chain] organization did.

Christina [Simon, Supply Chain Sustainability Manager] went and really connected the dots for everybody. She said, "Wait a minute, a quarter of what we have to spend in our 25 billion dollars of spend has to go to small business and the whole supplier diversity portion. We already do that. We do that every year, and don't miss a beat. That is part of being socially responsible. That is part of sustainability."

She started connecting the dots on various areas: "We're very concerned about a supplier code of conduct. We don't really have one that's written for the supply base. We just sort of pass ours down. Shouldn't we have a supplier code of conduct?" "We're concerned about conflict minerals." "We're concerned about counterfeit parts."

*There are a lot of things we started pulling in and saying, "**What you already do and what's in your business rhythm really is a part of the solution.**"*

When [the supply chain organization] started seeing that, they were very supportive. And now it's much easier to talk about what's the next phase and what's the next plan that we develop.

Step 4: Finalize stakeholders or continue process.

Confirm which of the invited key stakeholders plan to participate in the planned engagement process, and decide whether to proceed or postpone the 'Design' phase and continue building engagement.

PROCEED OR POSTPONE?

Some invited key stakeholders may decline to participate in the Program Plan design process. They may not have time, are not convinced of the need for a Sustainable Purchasing Program, or dislike the way the engagement process had been structured.

Obtain feedback. The Champion should try to get clarity on the reason for declines because it may reveal concerns or objections the Program will face going forward. If a decline was purely logistical, then a substitute can be requested.

Evaluate options. Evaluate whether or not the stakeholder engagement process could credibly proceed without the participation of invitees who declined. In some cases, it can. However, if no one from Procurement were available on the date of the planning kick-off meeting, proceeding without their participation would be quite awkward. In such a case, it may be necessary to postpone the planned stakeholder engagement process while recruitment of an essential stakeholder continues.

Recognize opportunity. While it might feel like a defeat if an essential stakeholder causes the process to have to be postponed, it's actually an opportunity to show that stakeholder how seriously their input and support is valued. When they see that, and realize that everyone else knows they've caused the whole process to be put on hold, they might just come around! At least, they will be far more likely to come around than if the process proceeds without them, as though their input was not essential.

End of Section Checklist

- Key stakeholders identified
- Stakeholder engagement process planned
- Stakeholders invited
- Sufficient stakeholder buy-in achieved to begin the 'Design' phase

Design the Program



Purpose

This section guides the Champion and the key stakeholders in evaluating the different pathways for starting up a Sustainable Purchasing Program at the organization, and designing a Program Plan that defines the pathway they think will be most successful.

Benefits

- Key stakeholders develop a shared vision for what the Sustainable Purchasing Program should be.
- Builds on the collective wisdom of key stakeholders to produce a Program Plan for realizing that vision.
- Increases the chances management will commit to the Plan, because it has the input and buy-in of key stakeholders.

Allow for plenty of time to design the program.

It is generally a good idea to spread the steps in this section out over several meetings. The Champion and the key stakeholders will need time to digest the information shared and the Champion will need time to incorporate stakeholder feedback between steps.

Step 1: Kick-off the Planning Process

The Champion organizes a Kick-off Meeting to build camaraderie among the stakeholder group, share sustainable purchasing program planning resources, and get stakeholder feedback on the planning process ahead.

KICK-OFF MEETING

Launch the planning process by focusing on developing a **shared foundation of knowledge**, so that all stakeholders are working with the same information. The Council believes a kick-off meeting, held in-person or virtually, is the best way to do this.

Note that the sample agenda includes presenting the Champion's case for why the organization needs a Sustainable Purchasing Program, and their vision for it. While that information may have already been shared with the stakeholders during the invitation process, re-visiting it during the kick-off meeting allows the Champion to present and explain any changes in response to conversations they had during the stakeholder outreach process.

This approach also allows stakeholders to ask questions and dialogue with one another.

SAMPLE KICK-OFF MEETING AGENDA

Introductions

Goals for the Meeting

Background Presentation and Q&A

Champion presents important background information, drawing on “Vision” section and stakeholder outreach process

- The case for **why** the organization needs a Sustainable Purchasing Program
- Introduction of Sustainable Purchasing Program planning **tools & resources**
 - *SPLC Guidance v1.0*
 - *SPLC Principles*
 - Four Essential Program Components
 - Program Commitment
 - Resources Commitment
 - Prioritization
 - Continuous Improvement Process
 - Strategy Cycle
 - Multiple Pathways to Build a Program
- Champion’s vision for **how** the Program could work
- Explain the planning **process** next steps (see following steps in this section of the chapter)

Invite Stakeholder Feedback

(see box for sample questions)

Next Steps

(assign tasks, determine next or regular meeting time)

SAMPLE FEEDBACK QUESTIONS

How would the group augment or challenge the case for why the organization needs a Sustainable Purchasing Program?

Does anyone in the group think that revising the Champion’s vision is a good starting place for developing a shared vision? (Note: The vision is separate from the logistics of the pathway for getting there, which will be discussed in Step 3. Don’t get bogged down in implementation discussion here.)

Do they think there are any key stakeholders missing from the group?

Are there any key questions missing from the planning process steps below?

Step 2: Develop a Shared Vision for the Program

Before the group can develop a Program Plan, they must have a shared vision for what the Sustainable Purchasing Program will *ultimately* be, say 5 years from now. The central question for the group to answer is: **What would an ideal, ongoing Sustainable Purchasing Program look like in the context of our organization?**

The Champion should lead the group through considering the following questions in order to develop a common vision for how the Program would *ideally* operate when full established:

- What would the Program's objectives be?
- How would success be measured?
- How would it fit into the organizational structure and culture?
 - Where would it reside within the organization? Procurement? Sustainability? Facilities?
 - How would it relate to pre-existing work?
 - Who would be the Program Leader?
 - Who else would need to be involved?
 - Would it have an advisory committee to help with prioritization and cross-functional coordination?
 - Would it make sense to franchise it, so that the headquarters supports each division, campus, or facility in running their own program?
- What resources would it need?
 - Would it need any dedicated staff?
 - Would it need consultants, tools, or training to support prioritization, spend analysis, and strategy planning?
- Does the envisioned program need an overarching Sustainable Purchasing Policy?[1]

[1] See this article for tips on how to avoid common pitfalls when implementing an overarching sustainable purchasing policy: <https://www.sustainablepurchasing.org/?p=3826>

Postpone concerns about difficulty.

At this point, the central question of the visioning exercise should be, "What would be an *ideal* Program?" Some members of the group may want to leap ahead and discuss the challenges of implementing the ideas people suggest for the vision. Champions should keep key stakeholders focused on envisioning the ideal Program by assuring them that feasibility considerations will be discussed, at length, in the next step of the process.

Mixing discussion of implementation challenges into a visioning process can make things very confusing for everyone and significantly slow movement towards a shared vision. It is best to get clarity on what the group agrees would be ideal before discussing implementation challenges because that allows the important discussion of challenges to answer both the question "What is feasible now?" and the question "How can the organization move from what is feasible now towards what would be ideal?" That second question is vitally important to developing a Program Plan that can move the organization from where it is today to a better place, and it cannot be answered without first agreeing on an ideal vision.

Note: It is appropriate to consider practical concerns about something being impossible, as opposed to just being difficult.

WHAT MAKES A PROGRAM IDEAL?

An ideal program is one that achieves its stated objectives as efficiently and effectively as possible.

Setting Objectives

Part of the visioning process involves determining the Sustainable Purchasing Program's objectives. The Council advocates that every Program's overarching objective should be **to enable the organization to take meaningful responsibility for all significant environmental, social, and economic consequences of the organization's spending**. In short, it should enable the organization to exercise leadership where it will do the most good. The Council's [Principles for Leadership in Sustainable](#)

[Purchasing](#) define what that leadership looks like in action and can serve as a guide for developing the Program's ideal objectives.

Efficiency and Effectiveness

The Council believes that the four essential [components of a leadership-capable Sustainable Purchasing Program](#) – which the totality of this *Guidance* is designed to support – present a reliably efficient and effective pathway to leadership that can be customized for a wide range of organizational contexts.

Hopefully, the availability of these two tools, the *Principles* and this *Guidance*, can significantly ease and accelerate the team's visioning process.

Who should be the Program Leader?

"Program Leader" is a generic term used in the *Guidance* to describe the person responsible for leading the ongoing activities of a strategic Sustainable Purchasing Program, such as running a prioritization process to identify purchasing categories or issue areas that are most relevant to the organization's social, environmental, and economic performance, and convening cross-functional teams to develop and implement action plans that continuously improve the organization's performance in those priority areas.

A generic term is needed because, in practice, SPLC has observed that a wide variety of professionals play this role in different leading organizations:

- **Sustainability Staff.** In some organizations, a sustainability officer leads the program, marshaling political will and resources to analyze purchasing-related impacts and convening cross-functional teams that include budget holders and procurement professionals to work on specific impacts or opportunities.
- **Procurement Staff.** In other organizations, someone from procurement will take the lead, often incorporating the prioritization of sustainability impacts and opportunities into core procurement processes, such as their spend analysis and strategic sourcing initiatives. Who within procurement takes the lead can vary too. In some cases the procurement-based Program Leader has been the organization's Chief Procurement Officer, while in other cases it has been a dedicated Sustainable Purchasing Manager, or, it has been incorporated into the responsibilities of the Director of Strategic Sourcing.
- **Budget Holder.** In some organizations, a major budget holder, such as the VP of Operations or the senior leader of a major business unit has determined that sustainable purchasing is an imperative and has taken on the responsibility of convening and leading the prioritization, action planning, and continuous improvement processes that make up a leadership-oriented Sustainable Purchasing Program.

These are just a few of the ways SPLC staff and members have seen the leadership of highly effective Sustainable Purchasing Programs organized. Determining what leadership structure is most appropriate for your organizational context is a key part of developing a shared vision for your Sustainable Purchasing Program.

SAMPLE PROGRAM VISION

Program Objectives

To continuously monitor and proactively manage the environmental, social, and economic performance of the organization's purchasing in order to reduce costs, mitigate supply chain risks, protect brand reputation, and demonstrate leadership.

Metrics for Success

- The organization's supply chain environmental, social, and economic **performance is well understood and monitored.**
- The organization's performance in each of the top 10 areas of concern is **industry-leading**
- Strategies have **saved the organization** substantially more than the program has cost.
- The organization is engaged in collaborative efforts to **support marketplace innovation.**
- The organization is **reporting publicly** its supply chain performance and promoting transparency throughout its supply chain.

Program Commitment

The Program has the visible support of the organization's management thanks to a purchasing policy modeled on SPLC's *Principles*, which was adopted at the same time as the Program Plan.

Resource Commitment

- The Procurement department has a dedicated full-time employee to coordinate the Program.
- The coordinator has an annual Program budget to host meetings, hire expert consultants, buy tools and access training, etc.
- A Sustainable Purchasing Subcommittee of the organization-wide Sustainability Committee supports and advises the coordinator.

Prioritization

The organization has a process by which it regularly evaluates its spending data to identify the most promising opportunities for further performance improvement.

Continuous Improvement

The organization has developed proficiency in convening teams as-needed to implement Strategy Cycles and create new Strategy Plans for improving supply chain performance in priority areas.

Program Structure

The org-wide Sustainability Committee has a Sustainable Purchasing Subcommittee to oversee the Program. The subcommittee includes people doing pre-existing related work, such as supplier diversity, ethical sourcing, energy management, environmental health & safety, etc.

Step 3: Determine the Best Pathway for Starting the Program

Revisit the "Many Pathways to a Complete Program" information at the beginning of the chapter and discuss where would be the most strategic place to start building the Program the group envisioned in the previous step.

Once a starting point has been identified, chart a timeline for growing the organization from there all the way until it reaches the group's full Sustainable Purchasing Program vision, noting resources needed for each step along the way, as well as the resources the Program will need on an ongoing basis once it is fully established.

Step 4: Draft the Program Plan

Now, the Champion should draft a Program Plan document, capturing the group's ideas in a format that can be presented to management. See the Sample Program Plan Outline box.

TWO PARTS OF THE PROGRAM PLAN

The Program Plan will need to:

1. **clearly describe** the vision for how the Program will work, once it is in place; and
2. **provide a detailed plan** for getting the Program up and running.

STARTING THE PROGRAM WITH A “TRIAL PHASE”

In an ideal world, the group could present their Program vision to management and immediately receive the commitment of all the resources necessary to run the full Program. But, of course, it rarely works that way. Managers and other stakeholders often want to see new ideas proven on a small scale first.

However, the group need not reduce its Program Plan vision to a stand-alone pilot project. Instead, it can write a Program Plan that has a Trial Phase containing one or more pilot projects. At the end of the Trial Phase, the outcomes of the pilot projects are presented to management along with any suggested revisions to the initial Program Plan. If management doesn't like what they see, they can postpone or cancel the full Program before the establishment of the more permanent program elements, such as hired staff. Here's an example of how that might look:

Program Commitment	<i>Apr 2015</i>	Management approves Program Plan.
	<i>May-Sep 2015</i>	<i>Pilot Project 1: Prove the value of the Strategy Cycle process by using it to develop a Strategy for addressing carbon emissions associated with the whole organization's purchasing.</i>
Trial Phase	<i>Aug-Dec 2015</i>	<i>Pilot Project 2: Prove the value of a data-driven prioritization process by conducting an “all spend, all impacts” analysis of the spending associated with just one of the organization's many operational units.</i>
	<i>Jan 2015</i>	Revise the Program Plan based on pilot project outcomes, if necessary.
	<i>Feb 2015</i>	<i>Review pilot project outcomes and Plan revisions with management before proceeding with next steps...</i>
	<i>Mar 2015</i>	Adopt organization-wide Sustainable Purchasing Policy. Hire sustainable purchasing coordinator.
Full Program	<i>Apr 2015</i>	Begin “all spend, all impacts” analysis of the spending associated with the entire organization's purchasing.
	<i>...</i>	<i>(Timeline continues)</i>

If stakeholders and management support it, this approach has several advantages over proceeding on a project-by-project basis. Here are a few key advantages:

- It makes the long-term vision clear, while only requiring an immediate commitment of the resources required for the Trial Phase.
- It allows management to make a long-term commitment *that is provisional upon their concerns being addressed*. Negotiations with management over the Trial Phase will clarify those concerns, and what it will take to alleviate them.
- The pilot projects will likely receive substantially more cooperation and buy-in because management is

their customer and what is at stake will be clear.

See the box titled “The Need for a Sustainable Purchasing Program” at the beginning of this chapter for additional reasons why proceeding with a program approach can be more strategic than a project-by-project approach.

SCOPING PILOT PROJECTS

Especially in large organizations, it can be helpful to limit a pilot project’s scope to a manageable subunit of operation, such as one division, campus, hotel, branch, or building. Doing this also allows the Champion to select an operational unit whose leadership is more willing and interested than others.

In general, the scope should be narrowed to a *subunit of operation*, not a *subset of spend* (see note below). Analyzing only a subset of the spending associated with an operational unit can create blind spots concealing significant environmental, social, and economic performance concerns.

NOTE: Unmanaged and non-influenceable spending *on goods and services* should not be left out of the scope. While the organization may be limited in the actions it can take to optimize the environmental, social, and economic performance of that spend, it **is** nonetheless contributing to the organization’s supply chain footprint. At the very least, the pilot project may identify ways to offset the risks/impacts associated with unmanaged or non-influenceable spend.

SAMPLE PROGRAM PLAN OUTLINE

Introduction

- Statement of the Plan’s origins, objectives, and expected benefits.
- Explain “Trial Phase”, if any.
- List of the resource commitments required for the Trial Phase and for the full Program.
- A list of any other requests of management (e.g., policy sign-off, communications about the Program, engagement in next steps, etc.)

Program Plan

- Overview: Program Goals and Objectives
- Program Structure: Program Leader, staff, advisory committee, etc.
- Implementation Plan
 - Trial Phase plan and associated resource requirements
 - Full Program plan and ongoing resource requirements
- Reporting Structure

Appendix: Process Overview

SCOPING THE PROGRAM

Prioritization enables appropriate scope.

A core value of the Council is prioritization – of impacts, target purchasing areas, and potential actions – as part of the organization’s Sustainable Purchasing Program. By understanding where the most significant impacts reside within all of its spending in a subunit of operations, organizations are poised to take the most strategic actions – and achieve some of the biggest benefits – at the outset.

A single program may be impractical.

Many organizations are too big, geographically dispersed, or decentralized to make one Sustainable Purchasing Program for the entire organization practical. Furthermore, attempting this process for the first time at the organization-wide scale decreases the likelihood the team will achieve success.

The Program Team manages prioritization.

The job of the Program Team—once it is established—is to create a Program Plan that facilitates prioritization at a reasonable scale based on the unique needs of the organization.

CONTEXTUAL CONSIDERATIONS

Are operations organized into semi-autonomous units (e.g., franchises, hotels, or campuses)?

In this case, it may be strategic to look for willing leaders at one or more operational units to pilot the Program's approach, and then help advocate the Program idea to the rest of the organization.

Does the organization currently face a reputational issue?

See if the Program Plan could address that reputational issue right away. Perhaps by making it a top priority for the Program's initial applications of the Strategy Cycle.

How heavily are the organization's operations governed by policies or regulations?

Sometimes policies or regulations do (or are perceived to) constrain certain aspects of what a Sustainable Purchasing Program can do. However, in most cases there will be many more things that can be done than cannot. For example, a number of hospitals, which are highly regulated, have managed to implement extensive sustainable purchasing programs – dramatically cutting their water, energy, building, and waste footprints – by focusing first on the things they can control, before moving on to tackle more challenging things like regulated medical devices and supplies. That approach will work for many highly regulated contexts.

What is the structure of procurement within the organization?

Is it centralized or decentralized? What are the mechanics of the procurement process?

Even in organizations with highly centralized purchasing, significant cross-functional collaboration is required to implement changes. But, in organizations with very decentralized purchasing, just getting the data to start planning can require significant cross-functional stakeholder engagement and coordination. Factor time allocation appropriately.

Do purchase tracking, monitoring and reporting systems exist within the organization?

Are there incentives for high performance in tracking, monitoring, or reporting?

The sophistication of the tracking, monitoring, or reporting systems (if any exist) will influence the time it takes to analyze spending and identify environmental, social, or economic performance issues. Keep this in mind when planning where to start and how long steps will take.

End of Section Checklist

- Key stakeholders share a common vision for the Program
- A Program Plan has been prepared for management to consider

COMMIT to the Program



Purpose

The purpose of this phase is to win the management commitment required for the successful implementation of the Program Plan.

Benefits

Formal commitment increases the likelihood that sufficient political and financial resources will be allocated to execute the Program Plan.

Step 1: Plan the request.

Make a plan for soliciting management's commitment to the Program Plan.

GUIDING QUESTIONS

Every part of the process thus far has been designed to reduce the risk that the Program Plan will meet the fate of so many well-designed plans: management decides not to commit the necessary political and financial resources required for implementation. By building on established best practices, engaging key stakeholders throughout the planning process, and ensuring that the Program Plan proactively addresses management likely concerns, there shouldn't be too much mystery as to whether or not management will support the Program Plan. But, the way the ask for support is made and the way the commitment of support is expressed can improve the chances that sufficient political and staff resources are allocated to the implementation of the Plan.

Here are a few key questions to consider when deciding how to approach management:

What decision-maker or decision-making body in management has the necessary authority to approve the allocation of the financial, political, and staff resources necessary to implement the Program Plan? What is known about the most effective way to approach that person or body with a plan such as this?

Who should present the team's work and the Program Plan to the management decision-maker? (e.g., a joint presentation, a memo with a co-signed cover letter, a presentation by someone who is a direct-report to the decision-maker, etc.)

How would the team like to see management express its commitment to the Program Plan? Is a public commitment desirable, or an internal one? Whether internal or public, should it be announced with an event, a memo, or something else?

TIPS FOR GAINING COMMITMENT

Lead with the business case. Even if the organization is committed to sustainability, showing that the Program Plan is good for the bottom line improves chances of implementation.

Be clear that the Plan is a process commitment. Emphasize that the Plan commits the organization to implementing a strategic management process, not to any specific purchasing preferences. The process will be used to develop strategic purchasing preference recommendations.

Target only the level of management required. For example, if the Program Plan could be implemented entirely within the authority of the City Manager, seeking City Council approval may be unnecessary.

Leverage stakeholder engagement. Involve stakeholders in pitching the Strategy Plan to management or have them demonstrate their support by co-signing a cover letter.

Include sign off on implementation steps. If the plan calls for management to take specific actions, such as approving a sustainable purchasing policy, include the policy for parallel approval.

Explain the benefits of the chosen implementation pathway. Show the manager that the group considered other ways of implementing the Program, and why they chose to recommend the path in the Plan.

Seek management ownership. Get management to issue a memo from their office to all stakeholders, indicating what is requested from each during implementation.

Step 2: Make the request.

Make the request for management to commit the organization to implementing the Program Plan.

If management is not ready to commit, find out what their hesitations are so the Program Plan can be revised to address those concerns.

Step 3: Announce the Commitment.

Hopefully, management agreed to announce the commitment via a memo from their office, but if not, coordinate an announcement of the Program Plan's adoption. At the very least, notify the key stakeholders as well as the broader group of people who may be affected by the Program's work.

Consider if it would be constructive to share the news of the commitment to a general audience via a press release, newsletters, blogs, or posts on listserves and social media.

Celebrate the accomplishment with those who made it possible!

It may be useful to hold a meeting to celebrate the accomplishment and formally kick-off the Program.

Step 4: Prepare for Program Plan implementation.

If your Program Plan called for things like hiring a Program Leader, do it. If it called for sending staff to get training or bringing in a trainer, now is the time. If it called for establishing a permanent committee to advise the Program Leader, establish it.

3 Program Operation



Chapter Overview

Chapter 3 provides guidance to help organizations ensure that their Sustainable Purchasing Program will be *strategic*, i.e. that actions taken will meaningfully improve the environmental, social, and economic performance of an organization's purchasing.

To this end, the Chapter introduces a structured process for prioritizing:

- **overall strategies** —e.g., “Scope 3 GHG reduction strategy”; “supplier diversity strategy”— that advance the organization's goals; and
- **specific projects and actions** that will advance those strategies.

The *Guidance* assumes that the Program Leader [identified in Chapter 2](#) will lead this process *iteratively* to facilitate the collaborative planning and implementation of an appropriate set of larger strategies that, over time, cumulatively enable the organization to achieve a leadership level of sustainable purchasing performance.

PRIORITIZE.

The Importance of Prioritization

Leadership requires prioritization. Organizations that demonstrate leadership in sustainable purchasing prioritize each incremental expansion of their program by focusing on strategies that offer the greatest opportunity to improve the overall environmental, social, and economic performance their supply chain, typically by following two parallel and related lines of strategic inquiry:

- **What** do we buy, and why does it matter? Which categories of spending offer the best opportunities for us

to advance a positive environmental, social, and economic future?

- **From whom** do we buy, and why does it matter? Which suppliers present the greatest opportunities or risks for us to advance a positive environmental, social, and economic future?

A Sustainable Purchasing Program cannot be strategic *as a whole* if it doesn't answer—or at least grapple with—these two questions.

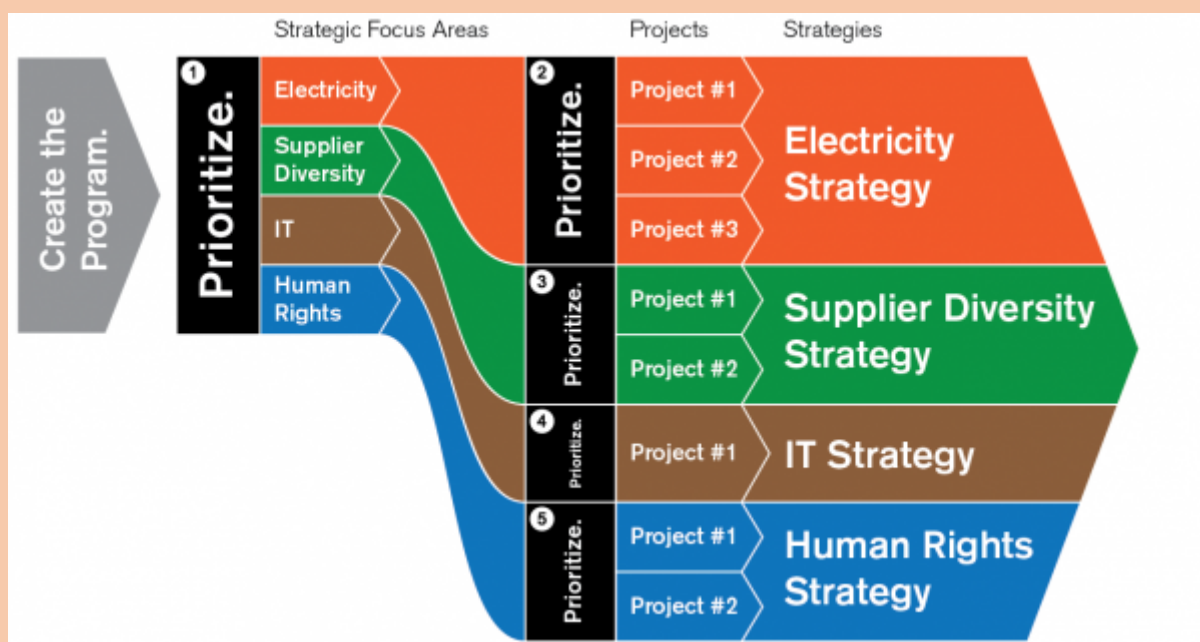
The Challenges of Prioritization

The two fundamental questions that leadership organizations ask—"What do we buy?" and "From whom do we buy it?"—are deceptively simple, yet hard to answer, in practice. Internally, it can be difficult to collect, validate, and classify organization-wide spend data. Externally, supply chain information may be incomplete, inaccurate, or inaccessible. And even if data is available, methods for using this data to estimate the environmental, social, and economic performance of goods and services are often approximate, and sometimes controversial. Further, accurate assessments of alternatives to current practice may be equally lacking. This means that quantitative assessment may not be possible at all, and expert knowledge, if accessible, may be required as a substitute.

While satisfactory answers may not always be available, however, leaders nevertheless strive to answer these questions because of their importance to ensuring that a Sustainable Purchasing Program actually delivers meaningful results. Otherwise, an organization could invest years in strategies that deliver minimal environmental, social, and economic benefits or—worse—could discover that its well-intentioned efforts had actually done more harm than good.

SAMPLE SCENARIO: Prioritizing Strategies & Projects

This flow chart shows how a hypothetical organization would use iterative prioritization processes to build up a Sustainable Purchasing Program that is executing on robust strategies in four high priority areas for that organization:



1. After creating their Sustainable Purchasing Program, the organization runs a **first prioritization process** that asks "which areas of our purchasing present the greatest opportunity to improve the social, environmental, or economic performance of our organization, supply base, and/or supply chain?" In this hypothetical example, the organization concluded that its purchases in the IT and electricity

categories were important areas of concern/opportunity. They also decided that two issue areas, supplier diversity and human rights, were of significant interest across many purchasing categories, and therefore the organization needed to develop a multi-category strategy to address those issues. These four areas (electricity, IT, supplier diversity, and human rights) are what the organization determined were “material” to them (see the “Materiality and Prioritization” box below) based on their unique portfolio of purchases.

2. In the **second prioritization process** the organization convened a cross-functional group of stakeholders in the organization’s large electricity purchases. The group analyzed all of the factors that were driving the organization’s electricity purchasing and related impacts, and explored a range of potential solution strategies for reducing those impacts. Ultimately, the group identified three projects that the organization could undertake to meaningfully improve the social, environmental, and economic outcomes associated with its electricity use. Going forward, these three projects would comprise the organization’s “Electricity Purchasing Strategy”.
3. In the **third prioritization phase** the organization convened an appropriate team of stakeholders to evaluate how the organization could do more business with diverse suppliers while also driving bottom-line goals. That group identified two main initiatives the organization could undertake to realize that goal. Those two projects became the core of the organization’s Supplier Diversity Strategy.
4. In the **fourth prioritization phase** the relevant stakeholders identified one major project that they felt would fully address the impacts associated with the organization’s IT purchasing.
5. In the **fifth prioritization phase** stakeholders developed a Human Rights Strategy which entailed two primary projects.

In this way, the organization iteratively went from having no comprehensive Sustainable Purchasing Program or strategies to executing on four robust sustainable strategies in the four areas that were of greatest concern for their organization, given its unique spend profile.

The Strategy Cycle: A Structured Process for Prioritization

SPLC’s *Guidance* proposes the “Strategy Cycle” as a structured process for addressing the diversity of factors that may influence an organizations strategic prioritization process. The following section provides an overview of Strategy Cycles, and the remainder of Chapter 3 provides a step-by-step guide for using Strategy Cycles to develop a highly effective Sustainable Purchasing Program.

The *Guidance* assumes that, in most cases, an organization will use a Strategy Cycle to guide the process of prioritizing one or more high-level strategies for its sustainable purchasing program, and then use successive Strategy Cycles to further develop each of these strategies.

Sharing a Common Language

Don’t be intimidated! The Strategy Cycle is simply a sustainable purchasing focused version of a typical Plan-Do-Check-Act management process.

When developing the *Guidance*, SPLC staff noticed that all the sustainable purchasing leaders interviewed were using a version of a Plan-Do-Check-Act process to develop their priorities, their strategies, and ultimately the projects that would deliver on those strategies. However, because everyone had different labels for the steps in their process, it was impossible to assimilate all of their wisdom and advice without settling on a specific set of steps and labels for the purposes of this *Guidance*. Thus, the steps in SPLC’s Strategy Cycle are intended to serve as a synthesis. Each step in the Strategy Cycle captures an area of activity that was given considerable emphasis by sustainable purchasing leaders. For example, the importance of early cross-functional and stakeholder engagement came up repeatedly, which is why the LAUNCH phase focus-

es on establishing that crucial engagement. The ANALYZE phase reflects the emphasis seasoned sustainable purchasing leaders put on educating all stakeholders using spend analysis, impact analysis, and other research.

Most organizations already have their own version of a Plan-Do-Check-Act management process in place, so it is *not* SPLC's expectation that readers of the *Guidance* will adopt the labels of the Strategy Cycle as their internal language (though they would be welcome to). Rather, SPLC hopes that organizations will pull ideas from the Strategy Cycle into their incumbent processes. Hopefully, the Strategy Cycle will also make it easier for organizations to share their best practices with each other – by relating their unique internal processes to the steps of the Strategy Cycle. As the US Green Building Council showed with its codification of the “design charrette” process, having that kind of shared language around processes can be crucial for creating cohesion between the activities of diverse organizations and building momentum across sectors and regions.

An Introduction to the Strategy Cycle

The Strategy Cycle is a structured process for selecting and designing specific strategies to advance the goals of an organization's sustainable purchasing program. The Strategy Cycle provides a structure that reliably supports strategic decision-making, while remaining flexible and scalable to the specific needs and challenges of an organization. It provides process for a group of key stakeholders collaborate to:

- **understand** opportunities for improvement;
- **prioritize** strategies for addressing them;
- **commit** to specific strategic actions;
- **implement** those actions; and
- **measure** the results over time.

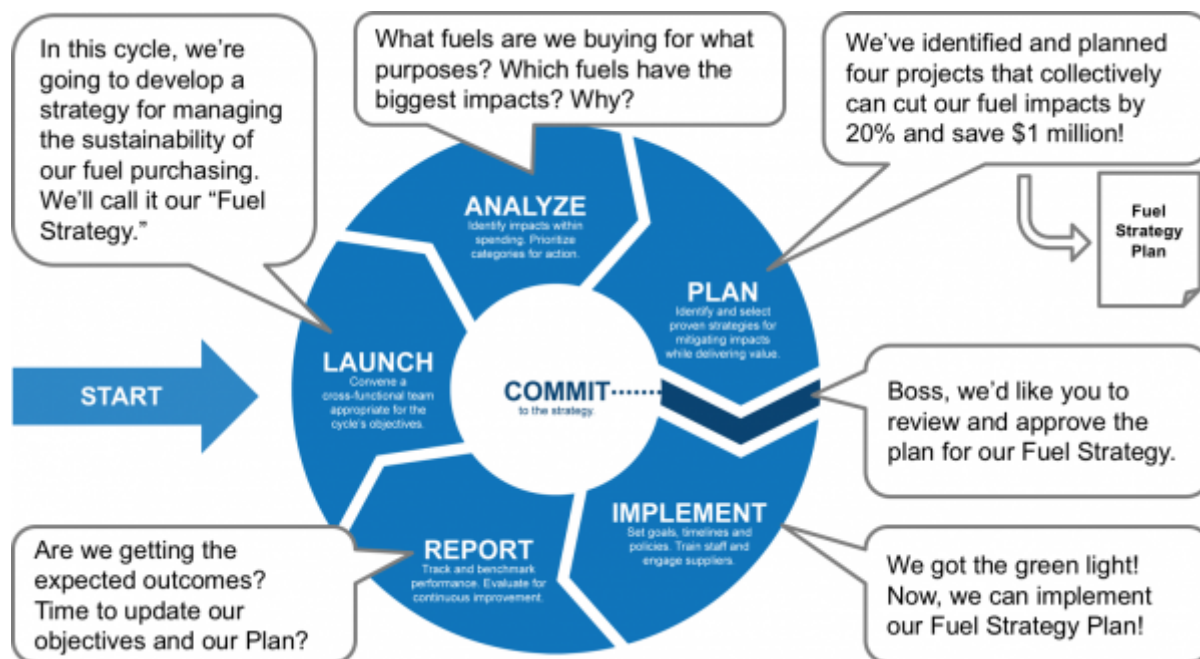


Structure of a Strategy Cycle

A Strategy Cycle involves the following phases:

- **Launch.** Convene the cross-functional Strategy Team that will develop a Strategy Plan for improving performance in a specific focus area.
- **Analyze.** Collect spend data and analyze associated impacts; prioritize areas for strategic action
- **Plan.** Identify a complementary set of strategies for improving performance; create Project Plans for each strategy; and summarize the Project Plans into a comprehensive Strategy Plan.
- **Commit.** Win management's support for implementing the Strategy Plan.
- **Implement.** Execute the Strategy Plan and its constituent Project Plans; establish ongoing performance tracking.
- **Report.** Report results to internal and external stakeholders; monitor performance for continuous improvement opportunities

While the Strategy Cycle is highly flexible and should be scaled to an organization's context, it is recommended that the steps in the Cycle always be performed in order. They are carefully designed to ensure that Strategy Teams can secure the answers, agreements, and commitments required to delivery on their goals in a timely fashion. Skipping steps or unnecessarily taking them out of order can result in confusion, frustration, false starts, unnecessary setbacks, and time wasted backtracking in order to fix issues that could have been more efficiently addressed earlier in the process.



Flexibility of Strategy Cycles

The focus of a Strategy Cycle may be very broad, looking for opportunities across all of the organization's purchased goods and services, or quite narrow, focusing on a specific aspect of the environmental, social, and economic performance of its supply chain. For example, an organization with a strong interest in improving its social performance might run a Strategy Cycle focused on understanding opportunities for increasing supplier diversity across all of its spending. Whereas an organization seeking to build upon achievements from its Climate Action Plan might run a Strategy Cycle focused on identifying opportunities to reduce the supply chain greenhouse gas emissions associated with the spending of its two largest divisions.

Each iteration of the cycle can be as complex or as simple as is appropriate for the size of the organization, the resources available, the purchasing categories involved, and the aspects of environmental, social, and economic performance that are being addressed. One iteration of the cycle might take 6 months while another only takes 6 weeks. One iteration might require a five person Strategy Team and minimal stakeholder engagement, while another may require a fifteen person Strategy Team and exhaustive stakeholder engagement. For every scenario, the Program Leader can easily tailor the process as needed.

Reporting and Continuous Improvement

In each cycle, the Strategy Team identifies metrics or indicators for monitoring the aspects of environmental, social, and economic performance that are being addressed as part of that Strategy Cycle. Once the strategy's projects have been implemented, the Strategy Team disbands, and the Program Leaders or their staff take responsibility for ongoing tracking and reporting, as appropriate.

The information gained from ongoing reporting of all active strategies enables the Program Leader to be strategic in focusing subsequent Strategy Cycles. For example, if an existing activity area appears to have more room for improvement, the Program Leader can propose to continue the improvement process by focusing another Strategy Cycle in that area.

SAMPLE ITERATIONS OF THE STRATEGY CYCLE

Cycle #1: Focus on overall spending in order to set priorities for future cycles (e.g., climate, supplier diversity, and food purchases).

Cycle #2: Focus on greenhouse gases

Cycle #3: Focus on supplier diversity

Running Multiple Strategy Cycles

A Program may have more than one Strategy Cycle running at the same time. A large company may have enough staff to have a cycle focused on growing supplier diversity at the same time that it has another cycle focused on identifying and addressing labor and human rights risks in the supply chain. Or, a hotel chain may decide to support two independently operated locations in running cycles focused on food sourcing.

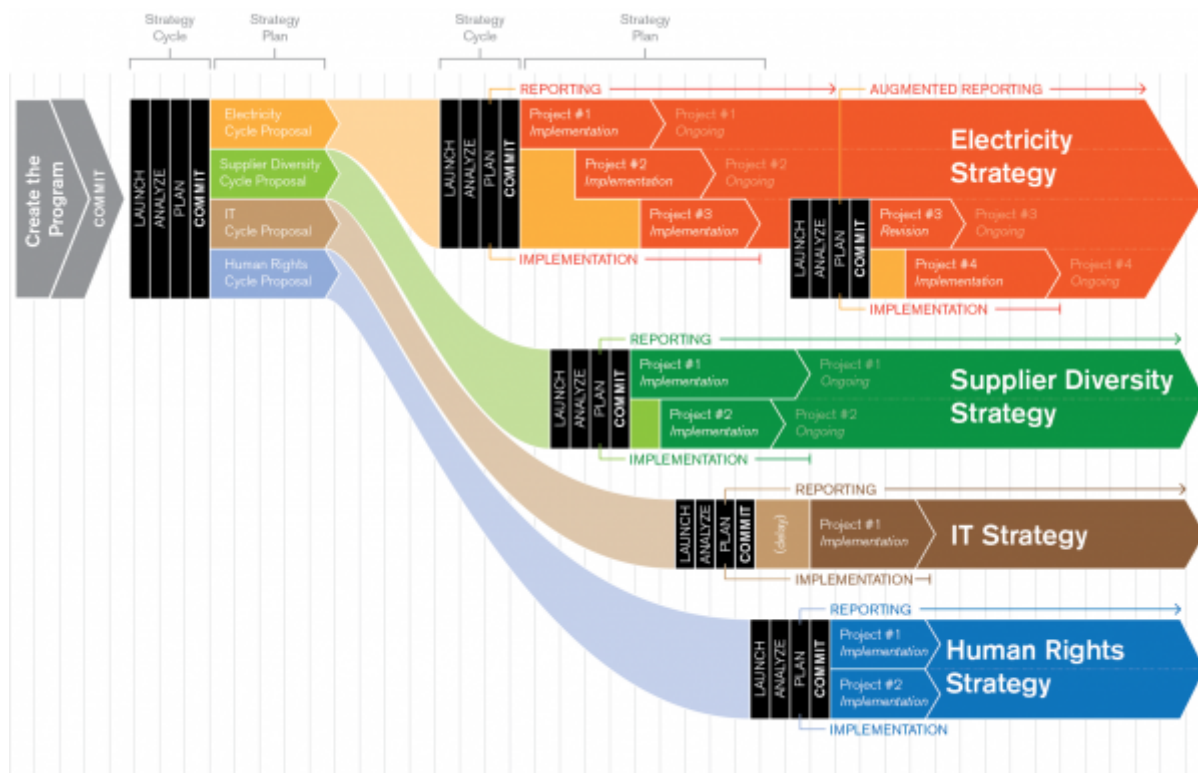
Additionally, the project plans that result from a Strategy Cycle could require years to fully implement. For example, if the Strategy Team identifies a contract coming up for renewal in 18 months as a ripe opportunity to push for improvements, the project plan they develop for how the organization should approach that contract renewal will likely have a timeline that extends into the administration of the new contract. Or, if one of the plans is to raise the vehicle fleet's fuel economy by 5 mpg, that may take three years of fleet turnover to accomplish.

During the implementation phase, the Program Leader therefore primarily plays a facilitator role, checking in on progress and making sure that required training and resources are delivered. The project plans themselves are usually carried out by staff who are expert in specific areas of the organization's operations or contracting. Additional performance tracking is generally the only long-term responsibility the Program Leader or their staff pick up with each Cycle. For this reason, a single Program Leader can facilitate multiple Strategy Cycles one after another, or even simultaneously.

The below diagram expands on the hypothetical scenario in the diagram above. It shows how the Strategy Cycle enables an organization to grow its Program iteratively and strategically, staging work and personnel to its best advantage. After the organization makes the commitment to launch a Sustainable Purchasing Program, it invests in conducting a Strategy Cycle that analyzes all of the organization's spending for a wide range of supply chain impacts, in order to identify the areas where the organization has the greatest opportunity to improve its supply chains environmental, social, and economic performance.

Here one can see that the output of the first Strategy Cycle was four project plans for four new Strategy Cycles that would dive deeper into each of the four priority areas identified. The organization next implemented a Strategy Cycle to develop its Electricity Strategy, which included three projects to be implemented in phases by an Implementation Team. The next Strategy Cycle developed a Supplier Diversity Strategy, which included two projects. The IT Strategy developed next resulted in only one project, with a delay, because the organization's best opportunity to improve its performance corresponded with the renewal of its primary IT hardware contract.

Finally, while the Human Rights Strategy was being developed, the organization had the capacity to simultaneously run a second Electricity Strategy Cycle, because there was so little overlap between the personnel required for the two Strategy Teams. The two projects resulting from the second Electricity cycle became part of the overall Electricity Strategy, augmenting the tracking and reporting of performance that was already happening for that Strategy.



LAUNCH the Strategy Cycle

Purpose

Kick-off the Strategy Cycle by determining the scope of work to be undertaken in the cycle, identifying stakeholders for that scope, and recruiting a Strategy Team to do the work.

Benefits

Ensuring that all stakeholders understand the cycle's focus area and what is expected of them throughout the process can head off common sources of confusion and frustration, significantly improving the chances that the cycle will produce an excellent Strategy Plan.

LAUNCH OUTCOMES

Completing the Launch section should fill in the blanks in this paragraph:

A Strategy Team comprised of (team) agreed to investigate the purchasing associated with (operational unit) . With the input of (key stakeholders), the Team will collect purchase history data, analyze the (specific issues or risks of interest) associated with those purchases, prioritize areas of purchasing with the greatest room for improvement, identify projects for improving performance in those areas, and select the most strategic projects for inclusion in a detailed Strategy Plan. The Team will get as far as it can meeting (frequency) for a period of (duration) . If it hasn't completed a Strategy Plan by then, it will make a recommendation on how to proceed.

Step 1: Define the Scope

The Program Leader¹ drafts a memo or proposal describing the scope of work to be undertaken in this iteration of the Strategy Cycle. The development of this proposal will help clarify who needs to be involved on the Strategy Team and what is expected of them. The proposal can then be shared as part of inviting members to join the Strategy Team.

The memo or proposal should answer the following scope questions:

- What purchasing category or aspects of environmental, social, and economic performance will be the focus of the cycle and why?
- What operational unit's purchasing will be the focus of this cycle?
- Who are the Strategy Stakeholders, and which of those should be on the Strategy Team? Who will be the Team Leader, if not the Program Leader?
- How long is the cycle expected to take? What's the time commitment for team members?
- What budgetary resources are required for tools or consultants, if any?

PRIORITIZING FOCUS AREAS

Each pass through the Strategy Cycle presents an opportunity to dig deeper into the environmental, social, and economic performance of the organization's supply chain. This allows a Sustainable Purchasing Program to grow incrementally.

However, creating a *strategic* Program requires carefully prioritizing which areas of spending or areas of environmental, social, and economic performance will be focused upon in each successive iteration of the Strategy Cycle. Failing to prioritize could result in the Program's resources being exhausted addressing areas of spending that do not contribute meaningfully to the overall environmental, social, and economic performance of the organization's supply chain.

The Chapter Overview provides several recommendations for how an organization can efficiently prioritize multiple iterations of the Strategy Cycle. The Council strongly recommends that organizations use those prioritization approaches if they wish to demonstrate leadership in sustainable purchasing.

EDUCATING ABOUT FOCUS AREAS

When preparing the memo or proposal for this cycle, recognize that many stakeholders who receive it won't be as familiar with sustainability concepts.

State which area of purchasing or aspects of environmental, social, and/or economic performance will be the focus of the cycle. Explain why that area of focus is strategic and important. Include background information on the topic (e.g. human rights, deforestation, climate change, etc.).

Take organizational culture into account. For example, if climate change is a debated issue within the organization, focus on the opportunity to avoid wasting money and fuel or the opportunity to find better, local energy sources for the organization.

SELECTING A TEAM LEADER

In many organizations, the Program Leader will serve as the Strategy Team's leader, facilitating the group's work on each step in the cycle. However, in large organizations, especially, the Sustainable Purchasing Program may have multiple staff that could lead the cycle, or, the Program staff may want to support other staff in taking ownership over the process. For example, a federal agency with multiple laboratories might want to support a staff member at each laboratory to lead the process.

OPERATIONAL UNIT AS FOCUS

In a large organization, it can sometimes be helpful to limit the Cycle's scope to a manageable subunit of operation, such as one division, campus, hotel, branch, or building. Especially in the Program's early stages, it can be helpful to start with an operational unit whose leadership has expressed interest and willingness.

In general, the scope should be narrowed to a *subunit of operation*, not a *subset of spend* (see note) Analyzing only a subset of the purchases required to run an operational unit can create blind spots that could lead to misguided Strategy Plan recommendations. In cases where it is not practical to analyze all the spend associated with an operational unit, seeking experts to validate the findings can help uncover blind spots.

NOTE: Unmanaged and non-influenceable spending *on goods and services* should not be left out of the analysis. While the organization may be limited in the actions it can take to optimize the environmental, social, and economic performance of that spend, it **is** nonetheless contributing to the organization's supply chain footprint. At the very least, the Strategy Team may be able to find ways to offset the risks/impacts associated with unmanaged or non-influenceable spend.

ESTIMATING THE CYCLE DURATION

At this stage, the Program Leader only needs to estimate how long it will take to do the steps in the Launch, Analyze, and Plan phases. It would be impossible to estimate time commitments beyond that point because that would depend on what projects are selected for the Strategy Plan. An estimate such as, "monthly meetings for six months" or "bi-weekly meetings for four months" should be sufficient for potential team members to be able to gauge their ability to participate. With each cycle, the ability to estimate future cycle durations will improve.

BUDGET NEEDS

Sometimes working on a specific focus area will require hiring expert assistance or buying a tool. When possible, the Program Leader should anticipate such needs so that the team's work doesn't become stalled while resources are lined up. The Cycle proposal does not necessarily need to include this information as it may not be relevant to stakeholders that wouldn't be supplying the resources. However, if resources have been lined up, letting prospective team members know they will have the support of an expert consultant or access to a powerful new tool can be a draw.

Step 2: Invite Stakeholders

Prepare letters inviting the Strategy Stakeholders to engage with the project, making clear in the invitation what level of involvement is requested from the recipient (e.g. their participation on the Strategy Team; attentiveness to progress reports and requests for input; etc.). The letter should briefly outline the goals, process and expected benefits of the cycle, and provide instructions for engaging with the process. In many cases, it will be strategic to invite the recipients to a kick-off meeting or a briefing. If a kick-off meeting is planned, ask for RSVPs so that any major gaps in stakeholder representation can be identified and addressed in advance of the kick-off meeting.

Decide who will send the invitations. Depending on the organization's size and culture, it may be helpful to have an executive leader or senior member of management issue the invitations. In other cases, it may be most expeditious for the Program Leader to send them.

STRATEGY STAKEHOLDERS

Identify as stakeholders any staff, departments, and external parties who would be affected by efforts to examine and optimize the proposed aspects of environmental, social, or economic performance within the scope for the cycle.

Internal stakeholders could include:

- Business units;
- Procurement;
- Finance;
- Operations units; and
- the program's managerial sponsor.

External stakeholders could include:

- Customers;
- Suppliers;
- Investors;
- Public interest advocates

TEAM MEMBER or STAKEHOLDER?

Not all stakeholders will have the same level of involvement in the cycle.

Strategy Team members are those stakeholders who need to be involved in the technical work throughout all phases of the cycle.

Strategy Stakeholders form a larger group who just need to be kept informed about the cycle's progress, so that they are prepared to give input at appropriate points. For example, current and prospective suppliers should know about the project so that they will be prepared to provide data during the "Analyze" phase and offer solutions during the "Plan" phase.

Differentiating Stakeholders.

- Decide which Strategy Stakeholders need to be involved throughout and should be invited to join the Team.
- Decide which Strategy Stakeholders simply need to be kept informed so they are not blindsided and are prepared to give input when desired.
- Determine if any further subdivisions within the Strategy Stakeholder group would enhance planning and communications. For example, the Strategy Team might communicate with external stakeholders, such as suppliers and public interest groups, separately from internal stakeholders.

HOW IS THIS DIFFERENT FROM STAKEHOLDER ENGAGEMENT IN CHAPTER 2?

In Chapter 2, the Guidance provided tips for engaging stakeholders and enlisting their support for the *creation* of an organization-wide Sustainable Purchasing Program. Strategy Cycles engage stakeholders in plan-

ning *specific strategies* for specialized areas of purchasing or aspects of environmental, social, and economic performance.

In many cases, the key stakeholders for establishing a Sustainable Purchasing Program will be managers from various parts of the organization. When it comes time to plan specific strategies, however, they will assign appropriate technical staff to the cross-functional Strategy Teams based on the focus area of the cycle. These technical staff may not have previously been involved and therefore will need to be provided with training. (See Kickoff Meeting)

Furthermore, the broader group of stakeholders relevant to each cycle will be different depending on the cycle's scope.

BENEFITS OF STAKEHOLDER ENGAGEMENT IN THE LAUNCH PHASE

Between inviting stakeholders to engage and starting the technical work of the project, it can be strategic to create space for Strategy Stakeholders to learn more about the process and give feedback on the proposed scope. This exploratory period can help:

- Develop a clearer idea of available capacity to do the cycle's work
- Identify additional resources and expertise
- Uncover confusion or resistance
- Achieve collective commitment

Step 3: Kick-off Meeting

Host a Kick-Off Meeting with Strategy Stakeholders to establish a forum for dialogue and cultivate a shared commitment to running a Strategy Cycle. The Kick-Off Meeting should generally include the following topics, but the agenda should be customized to the needs and context of the organization. Here is a sample agenda:

- Agenda Overview
- Group Introductions
- Presentation: Program Overview
 - Program Goals (ref. Chapters 1, 2)
 - Program Benefits (ref. Chapters 1, 2)
 - Program Process (ref. Chapter 3)
 - Strategy Cycle
 - Environmental, social, and economic aspects of supply chain performance
 - Spend Analysis Methods & Tools
 - Strategy Plan Examples
 - Q&A about the Process
- Presentation: Scope Proposal Overview
 - Operational Unit
 - Targeted Environmental, Social, and/or Economic Aspects
 - Strategy Stakeholders
 - Timeframe & Level of Commitment
- Discussion
 - Proposal details
 - Capacity of strategy team participants
- Decisions
 - Revise strategy scope based on feedback

- Agree on scope
- Agree on strategy team participants
- Next Steps
 - Schedule Regular Strategy Team Meetings
 - Assign Tasks to Prepare for First Strategy Team Meeting

WHY HAVE A KICK-OFF MEETING?

The Kick-off Meeting begins the dialogue with stakeholders and cultivates a shared commitment to the cycle. Strategy Stakeholders are able to meet each other, receive a briefing on the overall Sustainable Purchasing Program and the proposed cycle, give feedback on the cycle's proposed scope, clarify their capacity and willingness to participate, and identify additional resources and capabilities.

Whether that all happens in one kick-off meeting or over a series of meetings, the goal of these conversations is to end up with a Strategy Team that is fully committed to executing a well-scoped project with the support of the larger body of Strategy Stakeholders.

NOTE: The Kick-off Meeting isn't designed for getting into the weeds of project planning! Avoid getting bogged down at the Kick-off Meeting in detailed implementation questions that the Strategy Team will be investigating and addressing as part of their work. (See Tip).

The agenda outlined here assumes that stakeholders with little prior knowledge of the organization's Sustainable Purchasing Program and process are invited to attend the Kick-off Meeting. Organizations should certainly tailor it to meet their context and needs.

There are cases where it may make sense to have two kick-off meetings for the same project. For example, it may be strategic to brief and take feedback from internal stakeholders before presenting to external stakeholders.

Deepen stakeholder engagement through-out the process.

The Kick-off Meeting is the **beginning** of the stakeholder engagement process. Throughout the cycle the Strategy Team should report on its progress to the larger group of Strategy Stakeholders and invite input at appropriate times, such as when developing the Strategy Plan.

Step 4: Finalize the Scope

Draft a letter summarizing the cycle's goals, expected benefits, scope, timeline, and any other agreements made by the Strategy Team.

Before distributing the letter, ask the team members to confirm that the letter reflects their understanding of the team's agreements.

BENEFITS OF FINALIZING THE SCOPE

It's important that Strategy Team members (and other stakeholders) all understand the cycle's scope, their role in the process, and agree to the timeline before the project moves from the "Launch" phase into the "Analyze" phase.

While a Program Leader can forge ahead without first achieving that kind of broad buy-in, later stages of the cycle will often be complicated by pushback or confusion, causing the team to have to backtrack to formalize these scope and process agreements. It is always better to find out early why someone is confused or otherwise is not in agreement with the proposal!

For that reason, SPLC recommends formalizing the agreement in a Launch letter that is issued *by the team* to all stakeholders, explaining the cycle scope and timeline the team has agreed to. While this is just one way to formalize those agreements, drafting and getting sign-off on such a letter provides several benefits:

- Team members who may have been keeping their concerns or objections to themselves will often decide to share those concerns when asked to sign onto a letter that will be sent to relevant managers and staff around the organization. This provides a valuable opportunity to address those concerns before getting into implementation.
- It gives team members a sense of ownership over the cycle.
- It informs stakeholders about the cycle in greater detail than before, giving them the opportunity to raise concerns and the comfort of knowing the team is committed to keeping them informed.

Step 5: Communicate Next Steps to Management & Stakeholders

Report the cycle's finalized scope and timeline to Strategy Stakeholders. Consider if it would be constructive to share the report-out to a general audience via newsletters, blogs, or posts on list-serves.

Communications

If a Launch letter was drafted in the previous step, Step 5 (communicating next steps to management and stakeholders) can be as simple as distributing that letter.

End of Section Checklist

- Scope proposal drafted
- Strategy stakeholders identified
- Stakeholder engagement process launched
- Scope, responsibilities and timeline agreements formalized
- Launch report-out sent to stakeholders

ANALYZE Spending

Purpose

This section of the guidance supports organizations in conducting sustainability-related spend analysis.¹

Sustainability Spend Analysis is a systematic process of compiling relevant information, followed by analytics to understand details about an organization's spend. There are many forms and procedural elements that can be used to conduct a Sustainability Spend Analysis; these can be quantitative and qualitative and require varying levels of resources and spend data to accomplish.

Because many aspects of environmental, social, and economic performance are fundamentally different in na-

ture, there cannot be a single method that works for analyzing all of them. Each existing method reveals different sustainability-related information about an organization's spending. Generally, Sustainability Spend Analysis involves collecting, cleansing, and classifying purchasing history data in order to pair it with additional information about the environmental, social, and economic performance of the products, services and suppliers that make up that purchase history.

Benefits

Sustainability Spend Analysis helps purchasers understand the nature of organizational spend, reveals key details that can help organizations to be more strategic with their spending, and establishes a performance baseline against which future progress can be measured. Conducting a Sustainability Spend Analysis can bring buyers and requestors of purchases/services up to a higher level of understanding regarding how and what to purchase, how to strategically process future work, and the value of establishing and maintaining robust and accurate tracking systems.

Sustainability Spend Analysis can also help an organization to understand progress toward their existing goals or targets. For example, if an organization has particular values or impact areas that they are attempting to address across their supply chain, the areas that should be of greatest focus can be identified through Sustainability Spend Analysis. Similarly, if a purchaser is attempting to determine compliance with an internal or external policy (e.g., federal contractor guidelines) or progress toward publicly stated goals, this process can provide those answers.

Organizations can find great value in understanding their spend by dollars and where the embedded supply chain impacts are likely to be, and how the two interrelate. Sustainability Spend Analysis helps organizations to identify the most strategic product categories for improving the likely embedded supply chain environmental, social, and economic impacts of spending, and can also help to identify the priority suppliers with whom to engage to accomplish this. For example, through a Sustainability Spend Analysis with a social focus on the supply chain, an organization may find that there are a few country-specific sectors that are most affected by total spend, and can help facilitate a human rights due diligence process.

Step 1: Understand Organizational Priorities and Existing Levers for Change

In order to successfully use Sustainability Spend Analysis to influence priorities and strategy at your organization, it is important to **position the analysis within the context of organizational goals and the outcomes within the context of available levers for change**. After all, conducting a thorough Sustainability Spend Analysis is time and resource intensive; justifying and promoting investment in these activities with a keen eye toward relevance to the organization will only increase the likelihood that this activity will help to drive priorities and strategy in the future. Additionally, it is equally important that the method(s) selected for the analysis provide an opportunity for the Strategy Team to present the findings with a lens that is appropriate for the organizational context.

Using Sustainability Spend Analysis to Advance GHG Emissions Reductions Goals

If the organization has set priorities aiming to reduce GHG emissions by a certain percentage below a baseline by a target year, using spend analysis to reduce GHG emissions will not only advance a worthy goal, but also will build internal support for the Sustainable Purchasing Program. In this instance, selecting a methodology, such as EIOLCA, that will show which purchasing categories are likely to have the highest GHG contributions, and therefore merit deeper analysis, provides a strategic lens that aligns with a goal already established at the organization. Having the ability to present findings and recommendations in this context elevate the importance and usefulness of the Sustainability Spend Analysis.

CONSIDER THE CONTEXT

Consider the following questions in preparation for defining the scope and approach for the Sustainability Spend Analysis.

- What sustainability issues matter to the organization? Might there be spend analysis methods that provide analysis based on these issues? (For example, if environmental impacts are most important to an organization, an LCA approach makes sense).
- Does support exist to drive sustainability activities using spend as a leverage point? On which issues?
- How does change happen within the organization (e.g., policies, incentives, publicly stated goals, etc.)? How might the spend analysis produce recommendations that align with this approach?
- How are you going to use this process to achieve a different outcome?

Step 2: Determine Scope of Analysis

Discuss options for the scope of the analysis with the Strategy Team. At this stage, it is useful to have a high level understanding of what the scope and potential outcomes of the analysis could be, and gauge whether there are areas of significant agreement or disagreement. Depending on the situation, certain approaches and methodologies in the next step may be advisable.

Consider with the Strategy Team what they want to accomplish through this analysis. Below are some sample outcomes of spend analysis – use these in discussion to gain clarity on scope and ideal outcome.

- Identify which purchasing categories should be their primary areas of focus
- Choose the best performing (or least risky) suppliers within a particular purchasing category
- Select a product to deliver a particular service, function, or characteristic
- Set up an internal process by which the purchaser can make decisions
- Other outcomes...

Step 3: Create a Shared Understanding of Spend Analysis Options.

In this step, the person leading the Strategy Cycle has to make sure that the members of the Strategy Team are all on the same page about what types of spend analysis the team can do, and which of those options would likely be most appropriate for the focus areas of the current Strategy Cycle.

Before the Strategy Team dives into conversations about the details of spend analysis, make sure everyone on the team has a common understanding of the types of spend analysis that the organization can use to answer questions about the environmental, social, and economic performance of its supply chain. The range of analysis methods, tools, and data sets available can be overwhelming, even when team members are on the same page. If some team members have a different understanding of spend analysis than others, things can get confusing very quickly!

One way to get everyone on the same page is by sharing the following Detailed Guidance, which presents introductory information on Conventional and Sustainability Spend Analysis. The Team may find that it wishes to complete a particular type of analysis, but needs to start with a different approach due to time or data constraints, or that a different approach will adequately answer the questions the Team set out to answer.

Additionally, consider viewing the SPLC Training Webinar, [Running a Sustainable Purchasing Program Part 2 – Prioritization and Sustainability Related Spend Analysis](#) for an overview of spend analysis methods and process. This presentation could be used as part of the Cycle's Kick-Off Meeting to orient the team to the task at hand.

UNDERSTANDING SUSTAINABILITY-RELATED SPEND ANALYSIS

Conventional spend analysis uses purchase history data to answer key questions such as:

- *What* are we buying?
- *Who* is buying it?
- *From whom* are we buying it?

Organizations typically use the analysis to identify cost-saving opportunities, often through consolidation of suppliers for volume discounts.

Sustainability-related spend analysis pairs conventional spend analysis data with information about the related environmental, social, and economic performance of products and suppliers, such as ...

... *suppliers' size and diversity* (to understand how much an organization is buying from small, medium, or minority-owned suppliers); or

... *estimated greenhouse gas emissions* associated with certain products (to identify the areas of purchasing contributing most significantly to an organization's 'carbon footprint'); or

... *products, suppliers and regions known to have a high risk of human rights abuses* (to reduce the likelihood that an organization's purchasing dollars support such abuses).

Sustainability-related spend analysis is strategically important because it allows an organization to understand the cumulative effect of its purchasing *and* to efficiently locate the purchases within its spending that present the greatest opportunity for improving its performance.

It provides both the baseline and the prioritization tool necessary for a Strategy Planning process.

TWO PRIMARY TYPES OF SUSTAINABILITY-RELATED SPEND ANALYSIS

Type	Purchasing Category Analysis	Supplier Analysis
Focus	What are we buying?	From whom are we buying?
Purpose	Identify product and service categories within the organization's purchasing that present significant environmental, social, and economic performance risks. • What are the most significant cumulative impacts across all of the organization's purchasing?	Identify whether the overall make-up of the organization's supply base reflects its values, and whether individual suppliers present significant environmental, social, and economic performance risks. • Do we have the right mix of small, medium, and diverse suppliers?
Analytical Questions	• Which categories are contributing more to those cumulative impacts? • Where in the supply chain are the impacts originating?	• Are our biggest dollar suppliers sustainability leaders or laggards in their categories? • Do any of our suppliers present an out-sized sustainability risk for us?

Type	Purchasing Category Analysis	Supplier Analysis
Benefit	Enables Strategy Planning to focus on the categories that present the greatest opportunity to improve the overall performance of the organization's purchasing.	Enables Strategy Planning to focus on aspects of the organization's supplier selection processes that present the greatest opportunity to improve the supply base's overall performance.
General Method	Pair purchase history data with information about the estimated environmental, social, and economic risks associated with the product and service categories in which the organization buys.	Pair purchase history data with information about supplier characteristics and supplier performance history from an environmental, social, and economic perspective.
When to Use	When the aspect of environmental, social, and economic performance being evaluated is associated with the quantity and characteristics of the products or services purchased.	When the aspect of environmental, social, and economic performance being evaluated is associated with characteristics of a supplier or the supply base, as a whole.
Data Source Examples	Input/Output Lifecycle Assessment databases; process lifecycle assessments; sector analyses; country of origin analyses; standards, labels and certifications; expert knowledge; information provided by the supplier	Data reported publicly or directly by suppliers; audit or third-party verified data; standards and certifications; regulatory compliance data

Life Cycle Assessment Methodologies in Detail

Methodology	Description	Benefits	Considerations
Economic Input Output Life Cycle Assessment	Uses information about industry transactions (purchases of materials by one industry from others), and the information about direct environmental or social impacts of industries, to estimate the total emissions throughout the supply chain.	<ul style="list-style-type: none"> Provides big picture of where hotspots reside within an organization's overall spending, a clear picture into which categories to prioritize looking deeper. 	<ul style="list-style-type: none"> Results are not specific to an organization's products, services or suppliers. Limited to environmental impacts.

Methodology	Description	Benefits	Considerations
Process Life Cycle Assessment	Uses information from individual suppliers' Life Cycle Assessments to compare products that deliver the same service, benefit, or function based on environmental characteristics. Can be communicated as an Environmental Product Declaration (EPD).	<ul style="list-style-type: none"> • Individual manufacturer can use this data to improve the impacts of their process. • Proliferation of EPDs greatly simplifies the LCA output for purchasers to review. • Allows for comparison of suppliers against one another, and against industry average. • Flexibility to collect data at the product level (though supplier process data) or enterprise level (through supplier spend data) for comparison. 	<ul style="list-style-type: none"> • Without industry average data, comparisons are relative to only those suppliers considered. • Requires going to individual suppliers to collect primary data. • Limited to environmental impacts. • Requires going to individual suppliers to collect primary data. • Limited to environmental impacts.
Hybrid Life Cycle Assessment	Combines EIOLCA and process LCA or spend data from suppliers to provide more detailed environmental impact information specific to an organization's suppliers.		

Other Considerations

Making Sense of the Many Subtypes

Many aspects of environmental, social, and economic performance are fundamentally different in nature, which means that nuanced methods, tools and data sets are required for each. Where harmonization is possible, concerted efforts are being made to align methods, such as through the [UNEP / SETAC Hotspots Mapping Strategy](#), whose report lists many of the methods, tools and data sets available today.

The Rise of Open Data

Thanks to a combination of academic, industry, governmental, non-governmental, and entrepreneurial initiatives, suppliers are now reporting substantial environmental, social, and economic performance data, often into shared databases that allow purchasers to compare suppliers and that also provide recommendations to both the purchasers and suppliers on how they can improve their sustainability performance.

The more that purchasers rely on these common platforms *and request that their suppliers also report into them*, the better they will become as resources. Before organizations set out to collect performance data from all their suppliers through a supplier survey, they should check to see if there is a shared database that they can direct their suppliers to report to instead. Many of these database platforms can accommodate custom questions to meet unique needs. Making a point to use shared platforms for collecting data

will reduce the significant sustainability survey fatigue felt by many suppliers, and will allow other purchasers to benefit from the data.

Acquiring Spend Analysis Tools and Skills

Taking raw purchasing history data and pairing it meaningfully with environmental, social, and economic performance data in order to make credible claims about an organization's overall supply chain performance requires a specialized set of skills. Organizations often use third-party tools to reduce complexity and/or hire service providers to provide training, help manage the process, clean purchasing data, conduct the analysis, and/or interpret the results.

The [SPLC website](#) provides information about tool providers and services providers that can support both category-based and supplier-based sustainability-related spend analysis.

Step 4: Choose Methods, Tools, and Responsible Parties

First, identify any existing spend analysis that the team can build on.

For example, if the organization is already collecting and tracking its purchasing from small and medium enterprises, it may be possible to expand that system to also track purchasing from woman and minority owned suppliers in a similarly ongoing fashion. Another example is building on existing analyses conducted by industry associations, professional societies, or peer organizations. If a peer organization's analysis of all their spending revealed that 80% of their impacts came from just five purchasing categories, the Strategy Team could make a fairly safe bet that they would find out the same thing if they conducted a similar analysis. Instead of replicating that analysis, the team could instead decide to do a deep-dive analysis on one or more of those five purchasing categories.

Second, identify where spend analysis is needed and who will conduct it.

For each aspect of environmental, social, and economic performance where new analysis is required, the Strategy Team must answer the following questions:

1. What metrics will enable strategic prioritization and planning?
2. What method will be used to conduct the analysis?
3. How many years of purchase history does the analysis need to include in order to establish a sufficient baseline?
4. Who will do the data preparation and manipulation?
 - Will they need training?
 - What third-party data will they need?
 - What tools will they need?
5. Who will validate, interpret and present the results?
 - Will they need training?
 - Should there be a third-party review?

Adequately answering these questions involves investigating the complexity of the method(s) selected. Some require greater technical skill and time commitments than others. Some require buying access to third-party data sets or tools. In many cases, hiring the assistance of a service provider who already has access to and mastery of the required data sets and tools can be more cost-effective than conducting the same analysis in-house. However, if conducting the analysis in-house is a priority, many of these same service providers also offer training.

Third, decide how to handle areas where there is not a suitable method.

Robust methods simply do not yet exist for connecting purchasing data to some of the environmental, social,

and economic impacts known to exist in the world's globalized supply chains. In these cases, the Strategy Team must decide how to proceed. Here are just a few of the ways organizations have addressed these kinds of gaps:

- Use a proxy indicator (e.g., risk = industry + country of origin)
- Substitute expert knowledge (e.g., NGO, academic, or consultant expertise; category guidance from Chapter 4)
- Measure the ability/inability to evaluate the given aspect of environmental, social, or economic performance – with the goal of improving that ability through a project in the Strategy Plan.
- Collaborate with others to develop a novel method

The table titled “Sample Spend Analysis Scenarios for Different Performance Aspects” shows a number of scenarios for how a team could organize their decisions about what metrics, methods, tools and other resources they will use.

NAVIGATING THE MAZE OF SPEND ANALYSIS CHOICES

Step 1. Get clarity. The first step in navigating the maze of spend analysis methods, tools, data sets and service providers is to get clarity around what aspects of environmental, social, and economic performance are a priority for the organization and for this Strategy Cycle. Ideally, the scoping and stakeholder engagement process in the “Launch” phase should have provided that clarity.

Step 2. Narrow the options. Once the aspects of environmental, social, and economic performance are known, the range of analytical methods can be narrowed quickly because many are only suitable for, at most, a handful of aspects. Here are some ways to find the right method for your project:

- Consult the Tool Provider tables on SPLC's website
- Consult the [UNEP/SETAC Hotspots Mapping Strategy report](#)
- Ask peer organizations for recommendations based on their experience
- Contact suppliers, trade groups, and professional associations for advice
- Seek out collaborative efforts targeting the cycle's focus area
- Conduct interviews with subject experts and stakeholders
- Request information from spend analysis tool and service providers

Step 3. Review limitations of existing options. In some cases, it will be relatively easy to find well-developed methods to put to use, such as Economic Input/Output Lifecycle Assessment. However, in many other cases, the process for measuring a particular aspect of a supply chain's environmental, social, or economic performance will be much less standardized. The sustainable purchasing movement is relatively young and many of the methods, data sets, and tools necessary for managing a supply chain's environmental, social, and economic performance are still being developed.

Step 4. Expand the horizon. Where there are methodological or data gaps, SPLC encourages organizations to not give up. Instead, join or start a collaborative effort to address the gap, or, try something new and share the experience with others. The Council can be a forum for doing both of those things.

SPEND ANALYSIS ON A SHOESTRING

No organization has the resources to do all the analysis it would like, so the Strategy Team should be willing to prioritize in ways that leave some questions to be answered in future Strategy Cycles.

Even with a limited budget, reaching out to spend analysis consultants can be valuable. First, they may prove affordable. Second, they can often help the Strategy Team to articulate the business case for doing the desired type of spend analysis, by supplying case studies and other data. Third, they may offer training.

Finally, it can be a great opportunity to talk to an expert about the process!

SPEND ANALYSIS PROCESS AT ALAMEDA COUNTY

There are a few options for organizations who want to analyze the supply chain impact of their spend. First, they can do the work in-house using freely available web-based analytic tools. Second, they can hire a consultant who may have more sophisticated analytic tools. Third, they can review the results from existing analyses from similar organizations to get a sense for which categories of spend are likely to be high impact. Which option an organization picks depends on the level of specificity they looking for, as well as the budget and staff time available. Alameda County took a hybrid approach when conducting its greenhouse gas supply chain inventory by hiring an intern who completed the analysis using the EIOLCA.net tool developed by the Green Design Institute at Carnegie Mellon University.

- Karen Cook, County of Alameda

SAMPLE SPEND ANALYSIS SCENARIOS FOR DIFFERENT PERFORMANCE ASPECTS

Performance Aspect	Greenhouse Gas Emissions	Supplier Diversity	Human Rights
<i>Sample Metrics</i>	<ul style="list-style-type: none">• Total supply chain GHGs• % of Total supply chain GHGs by purchasing category	<ul style="list-style-type: none">• Diversity spend (\$ and % of total);• Diverse suppliers (# and % of total);• Transactions w/ diverse suppliers (# and % of total);• Diversity by type (# and % of totals);	<ul style="list-style-type: none">• % of contracts in IT, agriculture, and soft apparel that employ best practices recognized by human rights advocates as credible;• % of IT, agriculture, and soft Apparel purchasing made off-contract.
<i>Sample Method</i>	Economic Input/Output Lifecycle Assessment (EIOLCA)	Ask Purchase-to-Pay provider to turn on supplier diversity fields, and run their built-in supplier diversity reports.	The team will evaluate the best practices compatibility of the 20 contracts that make up 80% of the organization's on-contract spend in each sector and the best practices compatibility of largest off-contract suppliers.
<i>Baseline Timeframe</i>	2010 to Present	3 year trend data for all metrics	12 months of purchases in order to identify volume suppliers in each sector

Performance Aspect	Greenhouse Gas Emissions	Supplier Diversity	Human Rights
<i>Who will compile the data?</i>	A consultant with EIO/LCA expertise will lead the team through the data collection and compilation process.	Procure-to-Pay system contains most supplier transaction data. Procurement team will also look for diversity among top suppliers of P-card purchases.	Procurement Dept inventories the contracts and suppliers in three high-risk categories, analyzing them for compatibility with best practices.
<i>What tools do they need?</i>	Consultant has the necessary software.	Incumbent Purchase-to-Pay system.	Spreadsheet to score contracts against best practices.
<i>What training do they need?</i>	Consultant will provide team with training for the parts they will do.	None needed.	Training on ICAR best practice recommendations.
<i>What third-party data do they need?</i>	GHG emissions factors from the OpenIO database.	Diversity characteristics of current suppliers. Their Procure-to-Pay system provider has it already for most of their suppliers.	Information from top suppliers about their capacity to monitor human rights compliance in their own supply chain. Will query account reps for it.
<i>Who will validate and interpret the results?</i>	Consultant helps interpret results. Formal validation not required. Informal validation by sharing with Strategy Stakeholders.	Procurement staff will spot-check the supplier classifications to ensure the totals are based on sound data, and provide results interpretation.	Invite a human rights procurement expert or NGO to review the results and help with interpretation.

Step 5: Collect and Standardize Data

At this point, the team should know what purchasing history data it needs, how far back the data collection needs to go, and who is responsible for collecting it.

Identify Data Sources

Finding all the expenditure data will require collaboration with multiple internal departments because the data sources may reside in multiple places, such as ERP systems, e-commerce platforms, purchasing card systems, and data warehouses. Sources of data to consider include:

- Accounts payable and general ledger data
- Purchase order data
- P-Card data
- Contract and invoice data
- Data from supplier's systems

For example, within a single operational unit purchases may be made on contracts, with the exception of travel expenses, which are paid using purchasing cards. It is important to collect both sets of data to avoid inadvertently collecting a subset of spend and distorting the analysis.

Prepare the Data Requests

Before reaching out to owners of expenditure data, decide exactly what data points are needed and in what formats. This will usually be dictated by the third party data that it will be matched with, or the tool that it will be entered into. Preparing a template describing those two things will improve the chances of getting correctly formatted data. But, even with a well-designed template, don't be surprised if a good deal of work is necessary to prepare the data for use.

Collect Data on Major Anticipated Spending

Accompany the data request with a brief survey that asks about major purchases *anticipated in the next 12-24 months*, such as vehicles, construction or renovation projects, IT, etc. Significant purchases on the horizon are something the Strategy Team may be able to leverage as part of the Strategy Planning process. The owners of purchase history data may not be the best person to answer forecast questions, so let them know they can pass the survey along to other staff and budget holders within the operational unit. The finance department can also be a good place to find information about major new expenditures.

Resolve Data Problems

As the data comes in, review its quality and make plans for how to address quality problems. Expect challenges with data collection, and allocate time in advance to address data quality and consistency issues.

CORALLING SPEND DATA

At this point, the team should know what purchasing history data it needs, how far back the data collection needs to go, and who is responsible for collecting it. But in many organizations, that data may be distributed across multiple systems which often don't talk to each other, or may vary in terms of their level of data accuracy, detail, and standardization. *This is completely normal!* Don't get discouraged. Many leadership organizations that don't have clean, centralized purchasing data are finding ways to do meaningful analysis. Here are some of the strategies they use:

Stay laser focused on the data that is *essential*. It can be tempting to ask for a lot of "nice to have" data points at this stage, but that increases data collection difficulty, resistance and turn-around time.

Ask suppliers to provide the data. In many cases, suppliers will have better transaction-level detail, including the ability to split out product costs from service charges, such as delivery and installation.

Don't chase the "long tail." Focus the analysis on purchasing categories and/or suppliers that are large enough to be consequential. Don't exhaust the team trying to analyze a huge number of small categories.

Create a product and service code cross-walk. Many organizations have legacy product and service codes, which do not match industry standard classification codes used by spend analysis tools. Creating a "cross-walk" between legacy and industry standard codes is a worthwhile investment, since it only needs to be done one time, and many industry standard codes maintain cross-walks to other code sets, such as the United Nations Standard Products and Services Code. *Cross-walks typically require giving up granularity, but that's okay.* Often granularity is not required until the analysis has identified priority categories worthy of further, in-depth investigation.

Use data cleaning experts. Experts familiar with cleaning and manipulating large datasets can use sophisticated techniques to quickly resolve problems with the vast majority of records, leaving a relatively small number to be sorted out manually. Many spend analysis tool providers offer these types of data cleaning services.

Hire interns to help. Figuring out how to wrangle real world spend data can be a valuable learning experience for someone interested in learning the trade.

Re-scope. Sometimes data integrity problems can be so intractable that the only option is to revise the scope to remove the source of low integrity data. (And start a project to improve data collection to enable future analysis!)

Keep a central repository of contact information for the data owners.

When teams divide up the work of reaching out to owners of expenditure data, the repository can be used to assign individual team members to data owners. This can be useful in follow-up inquiries and for keeping them informed of the project's progress.

Make sure that all data providers feel invested in the process.

If, for some reason, members of a department whose spend data your team will be investigating were not included in the Strategy Stakeholder group or have not otherwise been involved in conversations to date, make time to meet and explain the project and its benefits.

This will help any internal political issues from arising and may identify any critical areas where scope needs to be revisited in the short-term due to unforeseen circumstances.

Step 6: Implement Analysis and Validate Results

Implementation

At this point, it's time for the team members or consultants responsible for conducting the analysis to apply the chosen analytical method or methods to the data.

Note: The guidance for implementing the analysis will depend entirely on the analysis method chosen. Consult the documentation created by the method's authors for assistance on this step.

Validate the Results

Things can go wrong when crunching large data sets, even when great care is taken. Before showing the results to too many people or spending much time trying to interpret them, taking time to validate the results can save a lot of grief. Nothing undermines confidence in a Strategy Plan like late-in-the-game revisions of the analysis it's based on!

Validation can be a highly formal process involving an independent reviewer, but in most cases something less formal will be sufficient. Consider the following options for informal validation:

- Spot-check the results by performing the method manually on a small subset of the data, such as one category, and confirm the results match.

- Review the results with an outsider to the process: someone who wasn't involved in "running the numbers." Investigate anything that is surprising to them.
- Share the results with two experts: one who understands the purchasing data and one who understands the environmental, social, or economic aspect being analyzed. Each will have enough knowledge about one of the data sets that were paired together in the analysis to make predictions about what was in the other data set. Their counterpart expert should be able to confirm or contradict those predictions. For example, an expert in greenhouse gas emissions could look at an organization's GHG inventory and quickly deduce, based on the type of organization, whether or not air travel was included. If it appears to them that air travel was not included but the purchasing data expert affirms that air travel data was supplied to the analysis, a mistake was made somewhere along the way.

INFORMAL WAYS TO VALIDATE RESULTS

Spot-check the results by performing the method manually on a small subset of the data, such as one category, and confirm the results match.

Review the results with an outsider to the process: someone who wasn't involved in "running the numbers". This could be one or more members of the Strategy Team. Investigate anything that is surprising to them.

Share the results with two experts: one who understands the purchasing data and one who understands the environmental, social, or economic aspect being analyzed. Each will have enough knowledge about one of the data sets that were paired together in the analysis to make predictions about what was in the other data set. Their counterpart expert should be able to confirm or contradict those predictions.

For example, an expert in greenhouse gas emissions could look at an organization's GHG inventory and quickly deduce, based on the type of organization, whether or not air travel was included. If it appears to them that air travel was not included but the purchasing data expert affirms that air travel data was supplied to the analysis, a mistake was made somewhere along the way.

An analysis that confirms assumptions can be valuable in a number of ways:.

- Organizational leaders usually are more likely to commit to projects based on sound evidence, rather than assumptions.
- The data establish a baseline against which future progress can be measured.
- Details often challenge assumptions, even if the high level results don't.

Step 7: Interpret the Results

In general, the purpose of a sustainability-related spend analysis is to find opportunities to optimize the supply chain's environmental, social, and economic performance. In that vein, questions that may be helpful to ask when interpreting the results include:

- Is the overall performance better or worse than expected? Better or worse than peers?
- Is the organization's overall performance improving or decreasing?
- Is there evidence that prior efforts have produced performance improvements that can be celebrated?
- What areas of purchasing are contributing the most, positively or negatively, to the observed performance?
- In the areas with the greatest performance challenges, are the current suppliers sustainability leaders or laggards in their sector?

- Are there any departments or business units that are contributing disproportionately to the performance challenges or successes?
- Does the analysis suggest that current efforts to improve performance could have a greater effect if re-applied somewhere/somewhat else?
- Is there evidence of temporary influences that the team might want to normalize before doing Strategy Planning, such as a recent once-in-fifty-years construction of a new campus?
- Is there anything that the analytical method itself is getting wrong or not taking into account? Does the team trust the results?
- Is there anything that needs to be investigated more deeply either as part of Strategy Planning or as part of a future Strategy Cycle?

Step 8: Communicate Results and Invite Stakeholder Feedback

Before reporting-out “final” conclusions from the spend analysis, it is a good idea to invite in the broader group of Strategy Stakeholders to review the results and the team’s interpretation of those results, and to contribute their reactions and feedback. For example, showing the results to current suppliers will often prompt productive dialogue and the sharing of new information. Opening the results to the scrutiny of a larger group of stakeholders is another way to informally validate the results before moving into Strategy Planning.

Draft a report summarizing:

- The analysis process undertaken
- The results and interpretation
- The focus areas for the Strategy Planning phase

Invite the Strategy Stakeholders to a presentation and report release. Consider if it would be constructive to share the report-out to a general audience via newsletters, blogs, or posts on listservs. Celebrate the milestone!

Step 9: Prioritize Areas for Deeper Analysis and Strategy Planning

The team should formally come to agreement on the priority areas that will be the focus of the Strategy Planning phase.

A PROCESS FOR PRIORITIZATION

Step 1. Narrow the focus. After integrating stakeholders’ feedback on the results, the Strategy Team must now agree on what the results say about where their focus should be in the Strategy Planning phase. Typically, the focus should be on those purchasing categories or suppliers that offer the greatest opportunity to improve performance. To identify these, rank the areas analyzed from “greatest opportunity for improved overall performance” to “least opportunity for improved overall performance.” Then, identify a manageable number of areas to tackle in the Strategy Planning phase (e.g., top 3, top 5, etc).

Step 2. Acknowledge challenges. While Step 1 provides the most straightforward way to do prioritization, it may cause anxiety because “non-influenceable”, unmanaged, or difficult to influence areas of *goods and services* purchasing, such as capital projects, utilities, or employee travel, may rise to the top. That’s a good thing! As noted earlier, the goal of spend analysis is to understand the current environmental, social, and economic performance of the organization’s purchasing, and therefore *where action needs to be taken* in order to improve that performance. If it turns out that the biggest areas for improvement are difficult to influence areas of purchasing, that’s something the organization needs to know *and needs to face, with the help of a talented cross-functional team.*^[1]

Step 3. Commit to further inquiry, at a minimum. The Council strongly encourages an organization to focus its Strategy Planning effort on those areas of purchasing that present the greatest opportunity for

performance improvement, regardless of perceived difficulty. While that may seem futile, the Strategy Planning process has the potential to produce remarkable breakthroughs that couldn't be foreseen at this point. The team and other stakeholders should keep in mind that *committing to research potential projects* as part of a Strategy Planning process is not the same as *committing to implement the projects*.

If the Strategy Planning process ultimately fails to turn up viable projects in a difficult-to-influence area of spend, that's okay because the organization will have learned more about the nature of the challenges in that area from having tried to address them. If, on the other hand, the Strategy Planning process does produce viable projects, the organization will not be committed to implementing those projects until management has given them their support as part of the Commit phase. So, there is no harm in trying.

Communicate Lessons Learned

This is a good point to draft some recommendations for improving the spend analysis process for the future. Recommendations could include the following:

Improve future contracts. Require suppliers to submit regular reports on what the organization has purchased.

Improve coding. Harmonize the item classification codes being used in the organization. Improve checks to ensure they are being properly applied within day-to-day operations

Step 10: Communicate Outcomes

Draft a report summarizing:

- The analysis process undertaken
- The results and interpretation
- The focus areas for the Strategy Planning phase

Invite the Strategy Stakeholders to a presentation and report release. Consider if it would be constructive to share the report-out to a general audience via newsletters, blogs, or posts on listserves. Celebrate the milestone!

PRIORITIZATION AND POLITICAL CONSIDERATIONS

Deciding where to focus Strategy Planning has political dimensions. Stakeholders could withhold cooperation—or management could withhold resources—if they are not convinced that investigating projects in the areas proposed by the Strategy Team serves organizational priorities. They may also be concerned that the analysis could create internal tensions within the organization.

When selecting and presenting Strategy Planning focus areas, it is wise to be attentive to organizational priorities and dynamics, as well the factors that influence them, such as executive priorities, customer expectations, investor pressure, public interest advocacy, internal reorganizations, and so on.

An Exercise to Address Political Considerations

The following exercise can help the Strategy Team make the case that focusing Strategy Planning on the areas they have selected will address organizational priorities:

1. Identify the organization's publicly or internally expressed high-level priorities.
2. Brainstorm all the factors that are driving those priorities. (e.g., customer expectations, depressed revenues, shareholder demands, etc.)

3. At a high-level, brainstorm how those priorities and pressures can be addressed in a positive way by taking action in the areas of purchasing the Strategy Team has chosen to focus on during the Strategy Planning phase.

In addition to helping the Strategy Team make a strong case to stakeholders and management as to why the Strategy Planning phase should focus on the purchasing areas they've selected, the above exercise can reveal if the proposed Strategy Planning scope fails to hit on one or more key organizational priorities. In such a case, it may be helpful to expand the Strategy Planning focus to include an area or two of purchasing that would do wonders for that key organizational priority, even if it wouldn't offer as much room for improving overall performance. It never hurts to ensure that sustainability initiatives clearly support the organization's success!

End of Section Checklist

- Spend analysis method selected
- Relevant data collected
- Repository created
for data owner contact information
- Analysis completed
- Priority areas selected
for strategy planning
- Results communicated
to management and stakeholders

PLAN Strategies

Purpose

The purpose of the "Plan" phase is to create a Strategy Plan that includes one or more projects to meaningfully improve the environmental, social, and/or economic performance of the areas of purchasing prioritized in the previous "Analyze" phase. **The Strategy Plan describes, in detail, the unified business case for a set of projects that an organization will implement together to achieve a strategic objective.**

During this phase, the Strategy Team will accomplish the following:

- Identify a wide range of projects that could improve performance.
- Choose a set of those projects that collectively offer the most strategic path for improving performance.
- Develop project plans for each project, detailing the tasks, responsible parties, timelines, performance metrics and targets, and the benefits and costs of implementing the project.
- Draft a Strategy Plan document that draws on the individual project plans to show the cumulative costs and strategic benefits of implementing all the projects in a comprehensive fashion.

Benefits

A Strategy Plan enables management to commit the organization to a strategic and comprehensive plan of action, rather than respond to one-off projects that may or may not be strategic when taken together.

STRATEGY PLAN FOR ELECTRICITY

An organization seeks to reduce the emissions related with its electricity purchases 20% by 2020. The Strategy Team identifies several projects to achieve that strategic objective. One project would be to conserve energy by removing non-ENERGY STAR appliances from the organization's eProcurement catalog. Another would also conserve energy by bidding a complicated multi-million dollar energy services contract. A third project would involve buying clean, renewable energy from a wind farm in a multi-year deal. The Strategy Team determines that the three projects will allow the organization to meet its 20% emissions reduction strategic objective.

However, while each project is logistically independent, they are strategically interdependent because they all influence the same thing: electricity-related emissions. Estimating the emissions reductions of each project individually could have led to mistaken emissions reduction expectations, given that one project could offset or augment the effectiveness of the others. In this case, buying wind power does offset the emissions reductions of the energy conservation projects because those projects are now offsetting cleaner electricity. Fortunately, the Strategy Team was looking at all the projects as one unified Strategy Plan, so they took that into account when determining that all three projects were necessary to reach the 20% goal. They further discovered that the two energy conservation projects will save more money than the added-cost of the wind power, giving the whole Strategy Plan a positive return on investment.

This overall business case greatly increases the chances that management will commit to implementing all three projects.

ADVANTAGES OF A STRATEGY PLAN

Integrating multiple projects for approval at the same time as part of a single Strategy Plan offers a number of advantages:

Focus on a strategic objective enables a portfolio approach. Activities that might not otherwise be approved as stand-alone projects may be approved as part of a Strategy Plan, because they offer opportunities to realize a strategic objective, with its costs offset other projects in the overall project portfolio.

Support from higher level management.

Because Strategy Plans typically touch several areas of operation, they often require approval by a single decision-maker or body (e.g., City Council) that sits high in the organization. This is helpful for several reasons:

- **Strategy Alignment.** Because higher levels of management are responsible for organizational strategy, they are often likely to give higher priority in their decision-making to the achievement of overall strategic objectives.
- **Total Cost of Ownership.** Senior managers are able to readjust budgets to allocate savings from sustainable purchasing projects to appropriate budgets and cost centers.
- **More Political Willpower.** Staff throughout the organization may be more willing to help with implementation if high-level decision-makers are receiving progress updates.

Opportunities for synergy and alignment.

As described in the above Strategy Plan Example, projects that support similar objectives can be aligned to support one another.

Management will appreciate it. Repeatedly asking approval for small, individual projects is inefficient and tiresome. Management typically prefers less frequent review of packages of projects that have larger aggregate cost/benefit implications.

Step 1: Adjust Strategy Team Composition

Given the areas of purchasing the Strategy Team prioritized for attention during this planning phase, consider whether the Strategy Team has sufficient representation from functional units that would need to be involved in making changes to those areas of purchasing, or, that would be affected by changes to those areas. If gaps are identified, recruit additional participants from those functional units to join the Strategy Team. Do the same thing for the larger group of Strategy Stakeholders.

In addition to adding new team members, permit any original team members to reduce their level of participation if they are not likely to be involved in or affected by work on the purchasing areas that will be the focus of the planning phase.

Resource Allocation

Throughout the Strategy Cycle, being careful to use only the human resources necessary to get the job done will earn the Program respect and trust from managers asked to contribute one of their staff's time to a Strategy Team.

POTENTIAL DATA SOURCES

Evaluating decision criteria often first requires collecting some data, such as average cost or performance. Information sources may include internal staff, peer professionals, peer organizations, suppliers, Group Purchasing Organizations (GPOs), cooperative purchase agreements, government agencies, standards developers and certifiers, consultants, industry associations, professional associations, and SPLC's community of practice.

Step 2: Explore Potential Decision Criteria

Ask the Strategy Team and Strategy Stakeholders to identify criteria that they would like to see a project meet before it is included in the Strategy Plan. This brainstorm can be conducted as part of a group meeting, by survey, and/or in one-on-one meetings, such as with management.

WHY DEFINE DECISION CRITERIA?

In major planning processes, stakeholders often fear that their concerns will not be factored into decisions. Planners can reduce such concerns and win buy-in by documenting and prioritizing criteria at the outset, to ensure that key stakeholder concerns are recorded and addressed.

Including Diverse Decision Criteria

Decision criteria can vary widely:

- Some will be quantitative (e.g., tons of greenhouse gas emissions avoided)
- Others will be qualitative (e.g., alignment with executive priorities)
- Some will be applicable across-the-board (e.g., return on investment)
- Some will only apply to a specific aspect of environmental, social, and economic performance (e.g., greenhouse gas emissions reduced per dollar invested)
- Some will be minimum performance criteria (e.g. 99.9% up-time)
- Others may be logistical in nature (e.g., feasibility within an existing long-term contract)

In this step, all decision criteria important to stakeholders should be included and treated seriously, even if

their utility seems dubious. At a minimum, these criteria provide intelligence about how Strategy Stakeholders will ultimately evaluate the final Strategy Plan.

In the next step, the Strategy Team will prioritize and streamline the criteria.

Step 3: Select Decision Criteria

Organize the criteria

First, organize the stakeholder's decision criteria into three categories:

- Absolute performance criteria
- Efficiency performance criteria
- Other criteria
- Within each grouping, review the proposed criteria to see if there is duplication that can be merged or if there is anything missing. There generally should be at least one absolute performance criterion and one efficiency criterion for each relevant aspect of environmental, social, and economic performance.

Prioritize the criteria

After the previous step, the Strategy Team should have a long list of decision criteria that stakeholders said were important to them. It won't be possible to evaluate every potential project against every criteria in such a long list. Therefore, the Strategy Team should evaluate and prioritize the list, and then select from it the decision criteria they will use to evaluate proposed projects. Use the process below:

- Move criteria that are not strategic for decision-making to an "excluded" list.
- Rename the absolute and efficiency criteria lists as "First pass criteria" and "Second pass criteria."
- For each criterion in the "Other criteria" list, ask if it is a prerequisite.
- If no project could be included in the Strategy Plan without meeting that criterion, then it should be moved to the "First Pass" list, otherwise, move it to the "Second Pass" list.

The Program Leader can accelerate this process by doing the evaluation and prioritization exercises on their own, and then bringing the result to the Strategy Team as a proposal. That way, the Strategy Team only has to spend time discussing points where they disagree with the way the Program Leader evaluated and prioritized the criteria.

Agree on the criteria

If the Strategy Team wasn't involved in the above evaluation and prioritization exercises, it should review and modify the prioritization before moving to the next step.

Agree on standard coefficients

Evaluating some criteria will require calculations using assumed values, or coefficients. In order to compare all projects fairly, the same coefficients should be agreed in advance before starting to investigate potential projects. They team might decide, for example, to set a consistent fuel cost coefficient equal to the lowest price that fuel has cost the organization in the last year.

Some criteria may be prerequisites.

For some criteria, the goal will be to identify projects that meet or exceed a minimum performance threshold. Such criteria should often be prerequisites, as might be the case with the “99.9% up-time” criterion in the example. That said, there is often a tendency on the part of budget holders to over-specify, and Program Leaders should push the team to only set performance thresholds as prerequisites when they are reasonable and truly essential.

ABSOLUTE vs. EFFICIENCY CRITERIA

Decision criteria should be differentiated based on whether they measure the absolute size of the performance gain achievable through the proposed project (e.g., tons of CO2 avoided) or the efficiency with which that gain is achieved (e.g., tons of CO2 avoided per dollar). Both types are important, but it is generally more effective to evaluate absolute criteria as a first pass and efficiency criteria in a second pass.

Evaluating proposed projects against efficiency criteria first (or even simultaneously with absolute criteria) can result in a lot of time wasted researching activities that may be efficient but don’t offer meaningful absolute improvements.

For example, if the Strategy Team is trying to produce a Plan that would cut CO2 emissions by 200 tons, then a proposed project that can save the organization \$100 per ton of CO2 avoided might be excellent from an efficiency perspective, but if the absolute CO2 reduction potential of the project is only two tons, it is not a good use of the cross-functional Team’s time. The small project may still be worth doing, but small projects with a good return on investment can generally be implemented without being included in a larger Strategy Plan being pre-pared for high-level management sign-off.

Early agreement on criteria keeps the process moving smoothly.

If everyone agrees that projects meeting the final decision criteria should be implemented, that can head off problems later. First, it helps keep the goal posts from moving on the team. Second, stakeholders are more likely to be supportive when they see that their interests and concerns are being taken into account.

Step 4: Explore Potential Projects (1st Pass)

For each area of purchasing chosen as a focus during the “Analyze” phase, brainstorm a wide range of potential projects the organization could implement to address the aspects of environmental, social, and economic performance that are the focus of this cycle. This can be done as a group exercise, in small groups, or as “homework.”

For each potential project identified, assign a team member to collect the necessary data to evaluate the first pass decision criteria.

BRAINSTORMING SUGGESTIONS

Stay high-level and outcome-oriented.

Focus on high level, outcome-oriented projects, such as “improve fleet economy by 5 mpg”, as opposed to “replace fleet sedans with hybrids that get 40+ mpg.” Focus only on whether the project will address a pri-

ority impact at scale.

Use brainstorming guidance and resources.

- Use SPLC guidance as prompts (guidance in Chapter 4, solutions worksheet, case studies database).
- Use guidance produced by others.
- Look for credible standards, certifications, or labels.
- Invite existing and competitor suppliers to suggest solutions.
- Identify and engage collaborative efforts that are tackling a particular challenge. (e.g. Healthy Building Network, Sweatfree Purchasing Consortium)
- Seek advice from NGOs, consultants and other experts that focus on that impact.
- Ask peers in professional and trade associations for ideas.

Conduct in-house research on alternatives.

Step 5: Select Short List of Potential Projects (1st Pass)

Together, the cross-functional team reviews the projects identified and evaluates how they compare on the first pass decision criteria. It can be helpful if the team leader ranks the projects according to the first pass decision criteria in advance of the meeting.

Using the first pass decision criteria as a guide, the team selects the most promising projects. The selected projects will receive deeper analysis in the next step, using second pass decision criteria.

Before investigating potential projects more deeply in the second pass, the team should determine if any of them would influence each other, and thus shouldn't be investigated in isolation. For example, if fleet fuel economy is improved by 20% and at the same time logistics improvements resulted in 20% fewer miles need- ing to be driven, analyzing both of those projects independently would result in an overestimate of their im- pact reduction (40%) when the actual reduction of the combined projects would be lower (36%).

Share a progress report.

In order to ensure the team doesn't go too far off-course of what senior leaders are willing to support, it can be wise to share the results at this stage with them in a progress report.

RANKING vs. SELECTING

Selected projects will not necessarily be the highest-ranking projects. Lower-ranking projects could be se- lected because:

- they are complimentary or synergistic with higher-ranking projects;
- they are timely (e.g., a long-term contract is coming up for renewal);
- they have substantial co-benefits, such as cost savings or brand-building; or
- they align with key organizational priorities.

That said, if a high-ranking project is excluded due to conditions that could change in the future (e.g., the organization is contracting), plan revisit the idea when conditions change.

Step 6: Further Investigate Short List of Potential Projects (2nd Pass)

Identify team members (or consultants) who will lead deeper analysis of each of the projects selected in the previous step. Within each project, there will likely be choices for how implementation could proceed, so whoever is investigating the project (“the investigator”) will be responsible for identifying those implementation pathways and collecting, for each of those pathways, the data necessary to evaluate them against the second pass decision criteria.

Create a common template.

Using the second pass decision criteria, a common template can be developed into which the relevant data points for each criterion can be input by the team members leading the investigation of each potential project. This can considerably ease the next step in the process.

GUIDANCE FOR SECOND PASS INVESTIGATION (IMPROVING FLEET EFFICIENCY BY 5 MPG)

Continuing the above example of a project to “improve fleet efficiency by 5 mpg”, the second pass is the step is where an analysis of the best ways to bring fuel economy up by 5 mpg would begin.

1. **Brainstorm all the ways of implementing the project.** This could include purchasing hybrids or electrics, but it could also include replacing the worst performing vehicles with best-in-class vehicles, or, putting in place systems that ensure operators drive the vehicles in fuel-economizing ways. This brainstorm can happen in many ways. For example, teams may choose to brainstorm and prioritize the various implementation pathways together, or, assign each area to an expert who would be best qualified to brainstorm and prioritize potential implementation pathways in that area.
2. **Collect the data necessary to evaluate potential projects against the second pass decision criteria.** In this example, the necessary data might include finding out what fleet vehicles have the worst fuel economy, what is best-in-class fuel economy for that type of vehicle today, how soon the vehicles would normally be replaced, etc.
3. **Document any practical requirements for implementing each project.** While gathering information necessary to evaluate the second pass criteria, team members will run across a lot of practical implementation information, such as who would be the natural “responsible party” for implementing each project. Because the team will need to know those things if it decides to recommend the project as part of the Strategy Plan, it can save a lot of time to document practical requirements of each solution during this phase. Team members should engage parties who would likely be responsible for implementing a project, even if it might be possible to determine the project’s feasibility without their input. Otherwise, the responsible party may feel blindsided or may point out a problem with the plan project after it has already been selected for inclusion in the Strategy Plan.

The Team Leader should check-in on team members regularly while they conduct their research in order to find out if they have any needs and to make sure that they are on schedule.

Market Engagement

Suppliers can be a great resource when turning a high-level project idea like “improve fuel economy by 5 mpg” into concrete project steps for a Strategy Plan. In fact, market engagement will often be a requirement at this phase because otherwise the Strategy Plan could end up including projects that the organization’s local/regional market cannot support.

Time to Get Conservative

In the first pass, the focus was on asking, “What’s the maximum performance improvement that can be achieved with each potential project?” That type of question lends itself to optimistic thinking, which is okay during that phase. One of the benefits of the second pass criteria is that they tend to focus more on asking, “What’s it really going to take to do it? How much effort per unit of benefit?” The team should finish this phase with *appropriately conservative* estimates of the environmental, social, or economic performance gains the project offers, as well as its financial costs and benefits.

Step 7: Select Projects for Implementation Planning (2nd Pass)

In this step, the Strategy Team will evaluate the results from the second pass investigation and select a portfolio of projects for inclusion in the Strategy Plan. The selected projects will receive detailed implementation planning in the next step.

The Strategy Team comes to agreement on a set of projects that it believes present the organization’s most strategic pathway for improving the aspect(s) of environmental, social, and/or economic performance that are the focus of this Strategy Cycle.

BENEFITS OF A PORTFOLIO APPROACH

As was the case in the first pass, the projects that offer the highest performance improvement or that are the most efficient may not, in practice, be selected for inclusion in the final Strategy Plan. Other factors must be taken into account, such as feasibility, complementarity, timeliness, organizational priorities, internal willingness, resource availability, external stakeholders and risk tolerance.

This is one of the major differences between the Strategy Planning process and trying to improve environmental, social, and economic performance using a contract-by-contract or product-by-product approach. When working contract-by-contract or product-by-product, decisions that could significantly improve performance can often get overruled because of budget-holder prerogative, competing priorities, and many other reasons. When key stakeholders go through the Strategy Cycle together and come to fully understand the whole picture, many of the objections encountered when working contract-by-contract or product-by-product can be overcome.

WHY A PORTFOLIO APPROACH WORKS

A portfolio approach enables teams to achieve objectives that simply would not be attainable in a contract-by-contract or product-by-product approach for the following reasons:

Aligned incentives. Stakeholders discover that the Strategy Plan is an avenue for getting things they want. (An updated fleet! A Purchase-to-Pay automation system! A dedicated supplier diversity position!)

Shared costs. Budget-holders don’t feel like they are being singled-out, because they see others being asked to make changes, too.

Team perspective. When stakeholders are asked to compromise, the Strategy Plan allows them to fully understand the rationale for that request and in the context of shared goals.

Transparency. The planning process requires objections to be made visible to the Strategy Team, so difficult personalities or territorialism can’t hold up the process in the same way that they can in lower visibility.

ty negotiations around changing a single contract or product.

Collective voice. Management is much more likely to commit to the Strategy Plan's projects when they are recommended to them by a Strategy Team that is cross-functional and representative of key stakeholders.

FUNDING AND RESOURCING PROJECTS

Projects that requires additional funding or resources should only be selected for the Strategy Plan if the Team has a recommendation for how it could be funded and resourced, because that will be the first question management will ask. Potential funding sources/mechanisms could include:

- Re-allocation of operating funds *within* a department or budget;
- Re-allocation of operating funds *between* departments or budgets;
- Allocation from the general fund;
- Self-financing performance contracts in which the supplier provides initial capital in return for a share of the savings;
- Borrowing (e.g., bonds, bank credit, etc);
- Grants;
- Incentives and tax credits offered by local, state, national governments or utilities;
- Investment of endowment funds on internal projects offering a reliable rate of return;
- Fundraising from alumni or partners; and
- Student fees.

Get endorsement from responsible parties.

Before a project is selected for the Strategy Plan, the Strategy Team should ensure that the parties who would be responsible for implementing the project are on-board. They should be asked to verify the Team's understanding of what would need to happen and on what timeline, who would lead the project, what the outcomes would be, and what the risks would be. Nobody wants the Strategy Plan to go to management for approval, only to have the parties responsible for implementation oppose one of the Plan's recommendations!

Step 8: Create Strategy Plan Timeline, Metrics, Targets & Milestones

In the previous step, the Strategy Team evaluated a number of individual projects against decision criteria in order to select a portfolio of projects the team will recommend to management. Now, all of those individual projects need to be organized into a cohesive Strategy Plan.

In this step, the Strategy Team organizes the selected projects into an implementation timeline, addressing any interdependencies between the projects and interactions with other planned organizational activities.

The team agrees on performance metrics and methods for tracking those metrics. The team identifies parties who will be responsible for establishing the processes by which data required for the metrics will be collected in an ongoing way.

For each metric, the Strategy Team agrees on a cumulative performance target for the whole Strategy Plan, as well as periodic milestone targets so that delays in progress toward the cumulative target can be discovered and addressed early.

SUGGESTED METRICS AND INDICATORS*

Chapter 4 suggests metrics and indicators* to measure performance in specific purchasing categories.

In addition to metrics that track aspects of environmental, social, and economic performance, the Strategy Plan should also include metrics to track cumulative financial costs and benefits.

* **Indicator** is used by SPLC to mean qualitative or proxy measures that can be used when direct measurement is not possible.

WHO SHOULD TRACK AND REPORT ON METRICS?

Ideally, the tracking of the environmental, social, and economic performance of an organization's purchasing doesn't stop when a Strategy Plan's implementation phase ends. Most of the performance benefits will accumulate after implementation has completed. Most backsliding happens after the implementation wraps up, too. This means it's NOT a good idea, generally-speaking, to make performance-tracking and reporting part of the duties of the Implementation Team. The Implementation Team will usually disband after implementation completes.

Instead, it's best to focus Implementation Team members on setting up efficient data collection systems so that the Program Leader or another staffer can easily assimilate and report-out performance on the Strategy Plan's performance metrics *on an ongoing basis, alongside the results of previous and subsequent project plans*. A team member could achieve this, for example, by writing periodic reporting requirements into a supplier's contract, or, by adding a database field and data to an existing reporting system.

This means that whoever is responsible for doing the ongoing reporting needs to be part of these conversations about metrics. They will need to understand the data needed to calculate the metrics, the frequency with which they should be reported, and to whom they should be reported.

THE IMPORTANCE OF STRATEGY PLAN TARGETS

Overall, how much of an environmental, social, economic and financial performance improvement does the team expect the Strategy Plan to deliver?

These targets are the headline claims that will go into the Strategy Plan's executive summary and will be used in internal and external communications about the Plan.

They are also what the Strategy Plan's success will ultimately be measured against.

COMMON PITFALLS IN OVERESTIMATION

Some things that can lead to overly optimistic Strategy Plan targets are:

- Failing to take into account expected growth/contraction in the organization or other planned changes to operations;
- Failing to account for projects that offset each other (see the fleet fuel economy and fleet logistics example above); or
- Making macroeconomic assumptions that seem reasonable at the time (e.g., "gasoline prices are going to continue going up"), without leaving room for error.

Ask the Finance Department review the financial projections in the Plan.

Management may be skeptical of financial projections for novel projects because it is sometimes difficult to understand if assumptions are conservative or optimistic. If the Finance team agrees that the team's projections are sufficiently conservative, management may be more comfortable giving the green light to implementing the Strategy Plan. The Finance team can often offer additional insights that help improve the plan from a business perspective, such as identifying additional funding sources.

Letting Management Choose the Level of Risk or Leadership in the Strategy Plan

The Team may want to group the projects within the Strategy Plan into tiers or tranches and evaluate cumulative costs and benefits of those tranches. This could be allow management the opportunity to choose a group of projects that suits their appetite for risk or leadership. For example, one tranche might be labeled "Low Risk, Moderate Return, Moderate Social Responsibility Leadership" while the other might be labeled "Moderate Risk, High Return, High Social Responsibility Leadership".

OUTCOMES OF THIS STEP

At the end of this step, the team should be in agreement on...

- projects to be included in the Plan;
- responsible parties for implementing them;
- implementation timelines;
- environmental, social, and/or economic benefits of **each project**,
- **cumulative** environmental, social and/or economic benefits of the whole Plan;
- per-project and cumulative financial costs and benefits of the Plan;
- resources/funding required; and
- data and metrics for tracking the Strategy Plan's success.

Step 9: Plan Implementation Coordination & Stakeholder Communication

The Team decides how the Strategy Plan's implementation will be coordinated and communicated to stakeholders. This includes designating an Implementation Leader, an Implementation Team, frequency of meetings, modes of communicating periodic updates to management and various stakeholder groups, etc.

IMPLEMENTATION TEAM / LEADER

If management commits to the Strategy Plan, who will oversee its implementation?

Every Strategy Plan should identify an Implementation Leader or Implementation Team that provides coordination between the parties responsible for implementing the individual projects within the Plan. This coordination ensures that responsible parties receive the resources and cooperation that management intended, and verifies that they are on schedule to meet targets.

Think carefully about who should be the leader of the implementation process.

Sometimes, it is most strategic to have a high-ranking person as the Leader, even if they delegate most of the work. In other cases, having someone with strong project management skills and a passion for the project can be better. Often, the best scenario may be to have someone with high rank take responsibility as Leader, but delegate day-to-day coordination to someone with strong project management skills and/or passion for the project.

COMMUNICATIONS STRATEGY

Proactive, ongoing communication with management and stakeholders is critical.

A regular communication schedule, such as monthly or quarterly meetings, can ensure that awareness of the Plan and its ongoing implementation doesn't fade.

The team should also think ahead about the different communication needs of various stakeholders, such as internal buyers or external suppliers, and create separate schedules or modes of communication for them. For example, internal buyers may need to receive training, while suppliers just need to be notified via a message on the website.

Step 10: Draft the Strategy Plan

Write a formal Strategy Plan document that can be presented to management, describing the projects selected and planned in the previous steps.

Write management support into the Plan.

Begin the Strategy Plan timeline with "CEO Commitment" or "Commissioners' Commitment" or whatever level of management support the Plan will require. This will clearly signal that everything else in the Plan depends on affirmative support from management.

If the projects in the Plan require any specific policies to be adopted by management (e.g. a policy that all computer purchases meet the EPEAT Gold standard), include that policy commitment at the start of the implementation timeline alongside the overall commitment to the Strategy Plan: "CEO Commitment to Strategy Plan; CEO Sign-off on EPEAT Gold Policy; CEO Sign-off on Fleet Fuel Economy Policy;..."

This way, the Implementation Team doesn't have to come back to make those requests from management at a later date.

SAMPLE STRATEGY PLAN OUTLINE

Introduction

- Statement of the Plan's origins, objectives and expected benefits
- A concise list of the management commitments the Plan requires

Strategy Plan

- Overall Plan
 - Projects and benefits list
 - Metrics and targets

- Funding, financing and resource needs
- Implementation coordination and communications plan
- Master timeline for all projects
- Individual Project Plans (one per project)
 - Detailed explanation of planned project
 - Metrics for success
 - Task list with responsible parties
 - Timeline
 - Funding/resource needs

Appendix I: Summary of the Strategy Planning Process

- Stakeholder engagement
- Spend analysis process
- Strategy planning process

Appendix II: Future Plans

There may be promising projects the Strategy Team would like to have investigated with more time, or that may not have been possible within current circumstances.

Note any projects that would be good to investigate in future Strategy Plans.

COMMIT to the Strategy

Purpose

The purpose of this phase is to win and maintain the management commitment required for the successful implementation of the Strategy Plan.

Benefits

Formal commitment increases the likelihood that sufficient political and financial resources will be allocated to execute the Strategy Plan.

Step 1: Plan the request.

Make a plan for how the team will solicit management's commitment to the Strategy Plan.

PLANNING THE REQUEST

Every part of the process thus far has been designed to improve the chances that management will commit the resources necessary to implement the Plan. By getting early buy-in on the Strategy Cycle Proposal, engaging key stakeholders, including management, through-out the planning process to ensure that the Strategy Plan's projects satisfy their decision criteria, there shouldn't be too much mystery as to whether or not management will support the Strategy Plan. But, the way the ask for support is made and the way the commitment of support is expressed can improve the chances that sufficient political and staff resources are allocated to the implementation of the Plan.

Here are a few key questions to consider when deciding how to approach management:

What decision-maker or decision-making body in management has the necessary authority to approve the allocation of the financial, political, and staff resources necessary to carry out the Strategy Plan? What is known about the most effective way to approach that person or body with a plan such as the one produced through this cycle?

Who should present the team's work and the Strategy Plan to the management decision-maker (e.g., a joint presentation, a memo with a co-signed cover letter, a presentation by someone who is a direct-report to the decision-maker, etc.)?

How would the team like to see management express its commitment to the Strategy Plan? Is a public commitment desirable, or an internal one? Whether internal or public, should it be announced with an event, a memo, or some-thing else?

TIPS FOR OBTAINING COMMITMENT

Lead with the business case. Even if the organization is committed to sustainability, showing that the Strategy Plan is good for the bottom line improves its chances of implementation.

Target only the level of management required. If the Strategy Plan could be implemented entirely within the authority of the Chief Operating Officer, seeking Chief Executive Officer approval is unnecessary.

Leverage stakeholder engagement. Involve stakeholders in pitching the Strategy Plan to management or have them demonstrate their support by co-signing a cover letter.

Show that implications of commitment are well understood. Emphasize the level of research conducted to identify blind spots and plan the implementation steps in detail.

Emphasize the plan's use of conservative scenarios. Share how risks and cost uncertainties were handled. Share the Finance department's opinion of the Plan's projections.

Include sign off on implementation steps. If the plan calls for management to take specific actions, such as approving a new policy, include the policy for parallel approval.

Provide options. Some managers like to have options to choose from. Consider grouping items that should be implemented together to create a "menu" of choices.

Seek management ownership. Get management to issue a memo from their office to all stakeholders, indicating what is requested from each during implementation.

Step 2: Make the request.

Make the request for management to commit the organization to implementing the Strategy Plan.

If management is not ready to commit, find out what their hesitations are so the Strategy Plan can be revised to address those concerns.

Step 3: Announce the Commitment.

Hopefully, management agreed to announce the commitment via a memo from their office, but if not, coordinate an announcement of the Strategy Plan's adoption. At the very least, the Strategy Stakeholders and Implementation Team members need to be notified.

Consider if it would be constructive to share the news of the commitment to a general audience via a press re-

lease, newsletters, blogs, or posts on listserves and social media.

Celebrate the accomplishment with those who made it possible! It may be useful to hold a meeting to celebrate the accomplishment and formally pass the baton from the Strategy Team to the Implementation Leader and Team.

IMPLEMENT the Strategy

Purpose

The purpose of the implementation phase is implement the Strategy that the Strategy Plan describes.

Benefits

If the Strategy has been well designed, and the plan has been well crafted and implemented, then the organization should realize the full range environmental, social, and economic benefits that originally provided a rationale for creating the Strategy (and the Strategy Plan that defines it) to begin with.

Process

After management commits to the Strategy Plan, the Program Leader or Strategy Team announces the commitment, according to the communications plan developed earlier.

The Strategy Team then sunsets while a new Implementation Team is formed from the responsible parties named in the Strategy Plan.

The responsible parties implement the Strategy Plan's individual projects with oversight by the Implementation Leader.

The Implementation Team establishes systems for efficiently collecting, on an ongoing basis, the data necessary to calculate the performance metrics established in the Strategy Plan. This can be done, for example, by writing periodic reporting requirements into a supplier's contract, adding a database field and data to an existing reporting system, etc.

WHY IS THIS SECTION SO SHORT?

It is impossible to provide implementation guidance for the huge range of projects that Strategy Teams may include in a Strategy Plan.

As an alternative, the prior chapters of this Guidance have supported Strategy Teams in developing project plans that include key pieces of implementation planning, such as responsible parties, timelines, performance metrics, milestone targets, budgets for required financial and staff resources, etc. Therefore, the best generic implementation advice is to "let the Strategy Plan guide implementation."

"Plan" becomes "Strategy."

What is really getting implemented, in this phase, is the strategy itself, for which the plan is a kind of management handbook. In the IMPLEMENT phase, an organization will use its Strategy Plan to launch a strategy: a "GHG Strategy" or a "Supplier Diversity Strategy." Up to this point, the team will have been talking

about a “Plan” for these activities, but now the plan becomes a reality, and the Team will start talking about a “Strategy” that is being implemented.

The Implementation Team implements the Plan, but the Strategy will remain a part of the organization’s Sustainable Purchasing Program even after the Implementation Team has disbanded.

MAINTAINING MOMENTUM

Momentum can wane if projects experience problems, delays, or missed targets. In such cases, it’s essential to be transparent about them, reemphasize the Strategy’s overall goals, and make any necessary adjustments. To keep up the necessary level of support and engagement over the course of implementation, the Implementation Team can...

Use comprehensive communications to ensure that key stakeholders are aware of the Plan, its intended benefits and its progress. Keep the goals of the Strategy front and center in all presentations and progress briefings.

- Use consistent communications channels for progress reports.
- Use the Strategy Plan’s metrics and timelines to create a visual dashboard.

Conduct regular check in meetings with all responsible parties named in the Strategy Plan.

- Ensure they are getting the necessary training, support and resources.
- Discuss delays or new information in a timely fashion.
- Share reports from ongoing performance tracking.
- Revise the Strategy Plan, as necessary, with their input.

Keep management updated through regularly scheduled progress briefings for those that committed the organization to the Strategy. Frequency and format is up to management.

Celebrate successes. Don’t wait until the end to tell stakeholders about the Plan’s accomplishments. Celebrating milestones along the way helps keep up the momentum.

REPORT Results

Purpose

Demonstrate results (or lack of results)... to internal stakeholders, external stakeholders, third party reporters.

Benefits

- Have the data to know the results are real
- Have the data to tell the story of your program’s success

Importance

Real results are the key to building a stronger program. Building a stronger movement. Building a better world.

Process

At least once a year, but preferably more frequently, the Program Leader or another staff member compiles the data being tracked for each metric that has been established as part of a Strategy Plan.

The results are shared with internal stakeholders. This can include convening current and/or past Strategy Team and Implementation Team members to discuss and respond to gaps between expected performance and actual results.

Results that can be shared with external stakeholders are made available to those stakeholders. Where practical, results are shared using public reporting tools, such as the Global Reporting Initiative, the CDP (formerly Carbon Disclosure Project) or SPLC's future benchmarking and rating system, so that others can access and learn from the organization's work.

Significant performance improvements or periods of high achievement should be celebrated!

REPORTING PERFORMANCE WITHIN AN ONGOING PROCESS

Tracking and reporting on the environmental, social, and economic performance of the Strategy should be the responsibility of the Program Leader or Program staff.

Tracking and reporting should not be the responsibility of the Plan's Implementation Team, because the Implementation Team will usually disband after Plan implementation completes. Meanwhile, benefits from the Strategy itself will continue to accrue. (See earlier Tip on Plan becoming Strategy.)

This *Guidance* suggests focusing Implementation Team members on setting up efficient data collection systems so that the Program Leader or another staffer can easily assimilate and report-out performance on the Strategy *on an ongoing basis, alongside the results of the Program's other strategies*.

This Report section of the Guidance assumes that an organization has set up their tracking and reporting in this way. Therefore, the tracking and reporting referred to in this section includes both reporting on a single Strategy's performance and the overall performance of the Sustainable Purchasing Program, which may include other strategies, as well.

A LARGER CONTEXT FOR REPORTING

The third of the SPLC's *Principles for Leadership in Sustainable Purchasing* requires *demonstrating* meaningful improvement and/or high achievement in the environmental, social, and economic performance of an organization's purchasing.

All too often, it isn't clear if an organization's sustainable purchasing initiatives are making a significant improvement in the organization's overall supply chain performance. Sometimes, despite the best of intentions, it may turn out that they are not.

All of the Council's programs are intended to help organizations define and achieve meaningful results with their Sustainable Purchasing Programs. This *Guidance*, for example, is designed to help organizations produce results by prioritizing areas of purchasing with significant room for improvement and identifying projects they can implement to improve performance in those areas.

To further help organizations measure and promote their Program's achievements, the Council plans to develop a sustainable purchasing rating system that provides benchmarking and leadership recognition based

on an organization's ability to demonstrate leadership-level performance.

WHAT TO REPORT?

What does an organization need to report in order to credibly demonstrate meaningful performance achievements?

In the "Analyze" and "Plan" sections of Chapter 3 and in the Purchasing Category Guides within Chapter 4, this *Guidance* suggests the types of metrics and indicators that an organization may want or need to track in order to evaluate the environmental, social, and economic performance of its purchasing.

REPORTING AND CONTINUOUS IMPROVEMENT

The ongoing reporting that is set up as part of each Strategy Cycle is something that the Program Leader can utilize when making decisions about where it will be most strategic to focus future Strategy Cycles. If they see a performance metric backsliding in an area that was addressed in a prior cycle, they can investigate to see if it is just a matter of lax vigilance or if the strategies adopted earlier are no longer enough. In the latter case, it may be time to focus another Strategy Cycle on that area.

Cleaning and Sanitizing Products for Facilities Care Guidance

This guidance pertains to the procurement of products used for cleaning and sanitizing buildings such as offices, schools, restaurants, and hotels. It includes housekeeping and surface cleaners, floor and carpet cleaning and personal cleaning products:

- **Housekeeping:** All Purpose Cleaner; Bathroom Cleaner; Glass Cleaner; Air Freshener/Odor Control; Disinfectant Cleaner; Furniture Polish; Metal Cleaner and Polish
- **Carpet and Floor:** Carpet Spotter; Carpet Shampoo; Encapsulating Carpet Cleaner; Carpet Pre-spray; Carpet Extraction Cleaner; Floor Cleaner; Floor Finish; Floor Stripper
- **Hand Care:** Hand Cleaner; Antimicrobial Hand Cleaner; Hand Sanitizer

The guidance focuses on the *use-phase* of cleaning products. For convenience, this report uses the phrase "cleaning products" to refer to the full range of cleaning and sanitizing chemical products described in this section.

Impacts of Cleaning Products

Use Phase

Worker Exposure to Hazardous Materials

- The processes of cleaning, sanitizing, floor maintenance and carpet care require worker contact with products that may contain hazardous substances. Maintenance workers bear the most direct, prolonged, and concentrated exposures to cleaning products.
- Chemical use in enclosed spaces with little or no ventilation (such as building alcoves, service closets, restrooms, etc.) can result in particularly high levels of exposure, as can unusual situations such as spills or improper dilution of concentrated cleaning products.
- The U.S. Occupational Safety and Health Administration (OSHA) warns that exposure to some cleaning chemicals can cause acute health effects, including skin rashes, burns, coughing, and asthma attacks.
- Long-term exposure to some products may lead to chronic health effects. For example, certain solvents used in some spot removers and carpet cleaning products are carcinogens and can also lead to neurologic, reproductive and other health effects with chronic exposure.
- Improper use of some cleaning chemicals can result in life-threatening situations mixing bleach with acid or ammonia containing cleaners can release toxic fumes. For example, a concentrated caustic floor finish remover can cause severe and permanent damage to eyes and skin if contact occurs and is not immediately addressed.

Impacts of Improper Use

- Workers' failure to properly use personal protective equipment, such as masks and gloves, can result in unnecessary and potentially harmful exposures.
- Spills and other accidents can put workers at risk, and also disrupt operations, if chemicals spread as liquids or through facility ventilation systems.
- Improper use can also lead to unnecessary costs and waste generation, e.g., due to using more cleaning product than needed, or using the correct amount too often.
- Also, failing to properly dilute a chemical concentrate could result in poor product performance.

Secondary Exposures and Air Impacts

- Building occupants are not generally exposed to the same levels of maintenance products as are the workers who directly use these materials. Nevertheless, product use can result in indoor air pollution, including unpleasant "chemical" odors or perfumed scents that not everyone finds agreeable.
- Some building occupants may have allergic responses to chemical products or develop sensitization to them over time.

Local Air and Water Impacts	<ul style="list-style-type: none"> • Cleaning chemicals are released into the indoor environment and into the graywater or sewage system of the facility. The releases occur as sprays, vapors, liquid discharges, or as solid powders typically mixed with liquids. These releases may have environmental impacts, including: <ul style="list-style-type: none"> - Release of volatile organic compounds (VOCs), which contribute to smog formation - Other indoor air pollution problems, such as odors and allergens - High concentration (toxic level) discharges may disrupt treatment processes or may harm receiving waters (e.g., rivers). <p>As a consequence of these issues, some products (including product containers after use) may be subject to environmental regulation at the federal, state, or local level and may need to be handled as hazardous wastes.</p>
Asset Damage	<ul style="list-style-type: none"> • Improper use of cleaning chemicals can degrade facilities and equipment. For example, use of a corrosive cleaner on a delicate surface such as stone countertops—or an aqueous cleaner on sensitive electronics—can lead to unintended damage. • Introduction of excess cleaning chemical fumes into a building’s ventilation system can lead to additional costs and even the temporary shutdown of the facility.

Disposal Phase

Solid Waste Generation	<ul style="list-style-type: none"> • Cleaning products are stored in containers and often delivered by spray bottles or other devices that can significantly contribute to the solid waste stream of the facility and add to the costs of disposal. • Whether maintenance chemicals arrive in 55-gallon drums, 20-liter carboys, or individual bottles, empty product containers contribute to a facility’s solid waste stream if they are not reusable or easily recyclable. The elimination of unnecessary packaging materials has positive upstream benefits associated with the manufacturing and transportation of the packaging materials themselves.
------------------------	---

LAUNCH

Follow the steps below to build an understanding of the impact of cleaning products.

An organization can best pursue sustainable purchasing of cleaning products by initiating the effort (Launch), gaining a full understanding of current practices at each facility (Analyze), identifying priorities for improvements, and adopting new procedures for cleaning product procurement and use (Plan and Implement). These actions, in turn, are best pursued through a team effort, particularly at larger facilities.

Sustainable purchasing is more involved than simply selecting “green” cleaning products from a supplier. The impacts of particular concern to the organization need to be articulated. Care must be taken to validate claims that a product that addresses the concerns actually does what it says. Cleaning staff may need be trained in use of new products or in new practices to minimize environmental or health impacts. New products and practices, no matter how advantageous in terms of sustainability, still need to meet acceptable performance requirements for cleaning operations.

Because organizations differ so greatly in their size, scope and management, there is no one approach to sustainable cleaning suitable for all types of operations. The guidance that follows should be tailored to the needs of each organization, particularly with regards to the relationship between individual facilities operating under a broader management umbrella from divisional or headquarters leadership.

Identify the necessary people for this team

Assemble a team who will be responsible for developing a sustainable cleaning program. If your operation already has a Sustainable Purchasing Team in place, consider adding representation specific to cleaning chemicals.

Among the possible participants, consider including:

- Facility manager(s)
- Janitorial staff
- Representative from cleaning contractors
- Building owner representative (if operating in leased facilities)
- Occupant representative
- Procurement representative
- Sustainability team representative (if one exists)
- Environmental Health & Safety representative (from the site itself or from the larger organization, as appropriate)
- Specialty representation, such as an infection control staffer at a healthcare facility

If your facility is part of a larger organization, you might want to include a headquarters, divisional or regional representative as well.

Describe the proposed scope of work for this initiative

Identify the areas being cleaned and maintained that are within the scope, along with way these areas are used (e.g., office space, meeting rooms, kitchen, etc.)?

Prioritize the sustainability impacts of cleaning and sanitizing processes that are most relevant to the operation

Refer to the Impacts of Cleaning Products box for a list of impacts to consider and prioritize. Identify any other impacts relevant to the organization that should be considered.

ANALYZE

Compile relevant information on the current purchasing and use of cleaning products using the Product Specification Collection Form to establish a baseline for benchmarking purposes, and will assist in planning future purchases, minimizing negative outcomes and documenting improvements in sustainable practices.

Research, Collect and Describe Current Products and Services

Research current products and services by reviewing current contracts and purchasing data. Some information may also be found on Safety Data Sheet from product suppliers. The types of relevant information includes, but is not limited to:

- List/names of products being used
- Function/cleaning application type for each product used
- Current product selection process/criteria (e.g., are only brand names products being specified or are products being specified by function/performance characteristics)
- Location where each product is/will be used
- Quantities of each product being purchased (e.g., monthly, annually)
- Cost per unit
- Amount of stored products currently available (inventory), in units (e.g., 6 gallons, 14 ounces, etc.) and where products are stored
- Dispensing methods being used (i.e., ready-to-use, concentrates that are hand mixed, concentrates in dispensing systems)
- Volatile organic compound (VOC) and other hazardous ingredients content of products (if available)

- Specific locations where disinfectants are needed, eliminating general cleaners containing disinfectants to avoid bacteria becoming antibiotic resistant
- Whether antimicrobial hand cleaners are being purchased. Research shows they are no more effective than soap and water and they can breed antibiotic resistant bacteria
- Whether air fresheners are being purchased. Healthier is to improve the ventilation system.
- Performance and quality of cleaning products for intended use (narrative response from maintenance team/occupants)
- User experience with products (e.g., does it cause headaches, itching, allergic reaction, etc.?)
- Current waste reduction/minimization plans (e.g., purchasing items with less packaging, delivering services with minimal packaging, and purchasing items that are contain recycled content or are refurbished).
- Disposal method(s) for unused product and packaging. Provide specific examples such as reports, policies, or plans on how to responsibly dispose of materials to mitigate environmental impacts such as water conservation and less toxicity.

Proper contract administration should be able to address these questions or show an organization ways to improve contract writing to include the collection of this data. If you do not have a contract administrator, the purchaser of these materials is likely to have the best data for the purchase-related questions; facilities staff should have current product inventory data, locations where products are used, and quality of products for intended use.

Consider conducting a Custodial Effectiveness Assessment

Products are only a part of the overall custodial effectiveness. Use the American Physical Plant Administrators (APPA) Guidelines for auditing implementation of the current cleaning practices and measuring custodial effectiveness, and to set goals for improvements. A facility can adopt and use these indicators internally or hire external auditing services

Consider conducting an Occupant Satisfaction Survey

Conducting a facility occupant satisfaction survey can help in assessing product and custodial effectiveness as well as the comfort of the occupants, and will also help in setting goals for future purchases and systems improvements. Occupants can report indoor air quality issues, including unpleasant “chemical” odors, disagreeable perfumed scents, or allergic responses to chemical products. Additionally, they can report visual or odor problems due to poor cleanliness, such as soiled surfaces or musty, mildew, or smoky or rotting odors.

Assess Current Products and Services

Based on the information collected in the previous exercise, consider the following questions about current products.

- How much time does it take to achieve the required performance?
- How often do you have to re-clean with any product?
- How does the product work in terms of dilution rates and cleaning techniques?
- Do the products work on all or multiple surfaces?
- What is the proper use of products to promote worker health and safety?
- What type of containers or dispensing systems are used for these products?
- What are your current disposal costs?
- Have you documented any savings from waste minimization efforts?
- Are there alternative practices that can reduce or eliminate the need for a cleaning product altogether without sacrificing the needs of users and the goal of cleaning (e.g., pressure washing or steam cleaning of hard surfaces)?
- Are there ways to improve the effectiveness of cleaning products when they are required?
- Are users choosing the right product for the task?
- Are there ways to improve how products can be safely dispensed, stored, and handled?

- Are there ways to improve worker and building occupant health and safety as they pertain to the use of cleaning products? Consider using disinfectants only where absolutely needed and eliminating antimicrobial hand soap as well as air fresheners.
- Are there ways to reduce solid waste generation or air/water emissions?
- What are the total costs of ownership? Consider not only the product's purchase price but also the costs associated with use (such as quantity used, frequency of cleaning, protective equipment required, labor time, worker health/injury) and waste costs (packaging and cleaning product containers) in the decision making process. These costs could have a significant impact on total costs to the organization though may fall in other budgets. For this reason, it is important to compare the total costs of one product compared to the alternative especially when there may be impacts from waste and use.
- Are there products certified to environmental or health standards?

Set goals for impact reduction

Using the information from the analysis, set goals for impact reduction related to procurement of cleaning and sanitizing products. Consider the specific needs of the target users and to what extent current purchases are meeting their needs, and where they can be improved.

There are a variety of options for the types of goals that could be set, depending on the organization's objectives. For example,

- Decrease in number of injuries from product use or application
- Increase in the number of products purchased with sustainability certifications
- Improved occupant satisfaction
- Increase in worker training on proper use and disposal

PLAN

Identify a set of strategies for improving the sustainable attributes of future cleaning products purchases and cleaning processes. The team should include product users (e.g., janitorial staff) to ensure their needs/expectations are included in decision making.

Select products with improved sustainability attributes

Review the potential options for purchasing products with improved sustainability attributes, as explored below. Obtain the best product(s) for the intended use. Keep in mind, the choice of cleaning chemicals can impact the total cost to an organization. It is important to consider the total use and disposal costs in addition to the price of the product. For example, direct and indirect costs that should be considered include purchasing personal protective equipment, funding a costly inventory, losing product to expiration dates, waste disposal (solid waste, and the disposal of potentially hazardous wastes from certain products), and impacts to assets from improper use, occupational exposure costs, training, and labor costs.

Products with Reduced Risks

As noted previously, worker exposure is a key impact area for facility cleaning products. The procurement team has the opportunity to make a difference by choose effective cleaning products with minimal human exposure impacts. Before choosing any product,

- Ensure users have a clear understanding of the cleaning process or system and critical performance requirements.
- Ensure the product is really necessary
- Ensure the areas of interest are effectively cleaned by the product or system. Ineffective products result in increased cleaning time, labor costs, and/or poor cleanliness. The need to use more of a product due to poor performance increases the risk of harmful human exposures in addition to increasing waste and environmental releases.
- Select products that when properly prepared for use have fewer or reduced hazard warnings (e.g., no GHS corrosive warnings, no GHS acute toxicity warnings in the Safety Data Sheet).
- Select products that require minimum personal protective equipment

Products with Ecolabels

Third-party certified cleaning and sanitizing products are available and have been demonstrated to meet the cleaning needs of purchasers across a variety of sectors. Use the table below to identify the appropriate certification for various product types.

Product Type	Description	Available Ecolabels
Housekeeping	All Purpose Cleaner (including disinfectant all-purpose cleaner); Bathroom Cleaner; Glass Cleaner; Air Freshener/Odor Control; Furniture Polish; Metal Cleaner and Polish	<ul style="list-style-type: none"> • Green Seal GS-37 Certified Bath & Tile, General Purpose, Bath, Glass & Neutral Floor Cleaners • Green Seal GS-53 Certified Disinfectants, Sanitizers, Odor Control, Furniture Polish, metal Cleaner and Polish • UL 2759 (formerly Ecologo CCD-146) Certified Hard Surface Cleaners • UL 2796 (formerly Ecologo CCD-115/107) Certified Odor Control Additives • UL 2794 (formerly Ecologo CCD-166) Certified Disinfectants and Disinfecting Cleaners • EPA - Safer Choice Certified
Carpet	Carpet Spotter; Carpet Shampoo; Encapsulating Carpet Cleaner; Carpet Pre-spray; Carpet Extraction Cleaner	<ul style="list-style-type: none"> • UL 2795 (formerly Ecologo CCD-148) Certified Carpet and Upholstery Cleaners • Green Seal GS-37 Certified Carpet Cleaners • EPA - Safer Choice Certified
Floor	Floor Cleaner, Floor Finish, Floor Stripper	<ul style="list-style-type: none"> • UL 2777 (formerly Ecologo CCD-147) Certified Hard Floor Care Products • Green Seal GS-40 Certified Floor Strippers and Finishes • Green Seal GS-37 Certified General Purpose, Glass & Neutral Floor Cleaners • EPA - Safer Choice Certified
Hand Care	Hand Cleaner; Antimicrobial Hand Cleaner; Hand Sanitizer	<ul style="list-style-type: none"> • UL 2784 (formerly Ecologo CCD-104) Certified Hand Cleaners • UL 2783 (formerly Ecologo CCD 170) Certified Instant Hand Antiseptics • Green Seal GS-41 Certified Hand Soaps • EPA - Safer Choice Certified

In addition to the multi-attribute certifications listed in the table, organizations may also want to consider one

or more single-attribute certifications to obtain additional and verified information about the characteristics of a product. One example is the USDA BioPreferred Program (<http://www.biopREFERRED.gov>), which certifies the biobased/renewable material content of products. Another example is UL GREENGUARD, which certifies products for low volatile organic compound (VOC) emissions (www.greenguard.org). For packaging, consider UL Environment 2809 – Environmental Claim Validation Procedure for Recycled Content could be used.

It may be useful to purchase a sample size of a new product to test the extent to which it fulfills users' expectations (e.g., ease of use, cleaning performance, effect of product on users' health), as well as meets the sustainability attributes identified by the organization. Testing should include training users on the proper application and cleaning methods for the alternative products. Sampling and testing may also help build support and approval for the use of new products if there is resistance to changing from materials that are normally used, as well as confirm that the cleaning products are "fit-for-use" (e.g., will not harm cleaned surfaces and finishes). New product purchase planning should consider the costs of new equipment needed for use, such as new dispensing systems or applicator equipment.

Reduced Solid Waste Impacts

Consider the following options for reducing solid waste generation from the use of cleaning and sanitizing products.

- Where feasible, avoid ready-to-use products where the applicator cannot be reused (e.g. spray bottles).
- Choose concentrated liquids, solids, or single dose products such as solid tablets, or powders packaged in water soluble or pre-portioned pouches that minimize packaging. For liquid or solid concentrates, select a closed dilution system to minimize human exposure, reduce packaging, and save storage space and transportation costs.
- Choose packaging containers that can be reused or recycled.

Process/Management Alternatives

Demand Management

Effectively manage product purchases can provide a variety of sustainability, as well as economic, benefits. For example:

- Ensure that users are purchasing the right product for the specific task, and using the appropriate amounts of product as directed by the manufacturer. This can help reduce waste, water, and air emissions, and also help ensure that the products are being used safely, and don't damage surfaces/areas that is being cleaned.
- Track use rates and use "just-in-time" ordering/delivery to match demand. This can help reduce store room space needs, the risks of storing excess products, and inventory management expenses.

Closed Dilution Systems

Both product manufacturers and certification bodies have recognized the sustainability benefits of using concentrated liquid or solid cleaning products. For example, such products typically have reduced waste (e.g., from packaging) and reduced energy consumption (e.g., from transportation). However, concentrating liquid products can also increase risks during use. For example, we consume diluted acetic acid as vinegar, but a concentrated solution of acetic acid can be highly hazardous for even incidental eye or skin contact. Closed dilution systems are designed to provide the benefits of concentration while mitigating the human exposure risks:

- Liquids and closed dilution system: These dispensing systems are designed to make the concentrated liquid product essentially inaccessible to users. The liquid product container is designed with a fitting that will open when the container is placed onto the dispenser (docked), and closes rapidly when the container is removed. Product containers with these fitments minimize the potential for exposure and spillage.
- Solid products and closed dilution system: Chemical products purchased as solids minimize exposure by nature of their solid block form, which cannot be spilled. These solid products are positioned in a closed dispenser where they are dissolved to a use dilution and dispensed for cleaning. Products in solid form offer both the ultimate in concentration and compaction, in addition to minimized exposure hazards.

Where possible from an economic and task performance standpoint, it is preferable to purchase products that

are designed for and/or certified for use in a closed dilution system, versus those that can only be used in “open” systems (e.g., poured from a bottle).

Supplier Consolidation

Once desired products and demand needs are identified, consider establishing relationships with a preferred supplier or suppliers across the institution (versus allowing departments to buy from multiple suppliers). The organization’s policies on supplier diversity also should be considered. Aggregating purchases can enable volume pricing for preferred products, reduce delivery environmental costs (e.g., emissions from transportation), increase inventory controls, and recognize sustainability leadership suppliers.

Service-based Performance

In situations where the institution has contracted with an external supplier (e.g., a janitorial company), consider contracts that focus on paying for performance (i.e., cleanliness), in addition to identifying the kinds of sustainable products to be used. This puts a natural incentive on the service provider to reduce their costs by using the minimal amount of the most effective product to do the job, while meeting performance expectations.

IMPLEMENT

Implement the plan, make changes in purchasing processes to align with the plan, train the custodians, and establish a performance tracking system.

Product Substitution

Consider what changes, if any, need to be made in any written policies and procedures to effect purchase and use of more sustainable products and processes. If purchasing is completed in house, ensure that the purchaser is aware of sustainability requirements established by the team. Provide available links to product directories or lists of products that meet relevant sustainability requirements. If the institution uses an approved product list, make sure the substitute products are placed on that list.

If purchases occur both internally and through contracts, use the same specifications to ensure consistency regardless of where or with whom the purchases occur. When products are purchased by outside service providers, include language in bids and contracts requesting use of sustainable cleaning products. Provide appropriate guidance to individuals making direct purchases on how to select products, regardless of brand name, based on the product’s ability to perform the required function (e.g., glass clean, hard surface cleaner, hand sanitizer) and to meet the organization’s sustainability requirements.

When identifying more sustainable cleaning products, ensure that new products match the old products’ applications and that the replacements will perform the same function. For example, there are different types of toilet bowl cleaners (some acid, some neutral), and metal cleaners that are specific (e.g. stainless steel or copper), while others are safer for a broad range of metal surfaces.

Consider the scope and steps needed to make product substitutions that would work best in your organization. Approaches could include:

- Prioritizing the list of products for substitution and implement the switch for the entire organization one product category at a time (e.g., all glass cleaners) or in small product category groupings (e.g., all bathroom cleaners and all floor cleaners).
- Before making a facility-wide or institution-wide change, consider a phased approach to determine if substitute products perform effectively in various application settings to objectively evaluate the performance of the new products. For example, products could be completely replaced in one part of a facility while partial containers of the previous products can be used in another part of the facility. Considerations should not only include preparation, purchasing, and training for this phase, but also monitoring of the product performance, efficacy, and impacts for potential use more broadly across the operation.

Process/Management Changes

Identify and make any necessary changes in internal cleaning policies and procedures and educate users on those changes.

Identify and implement the specific changes needed to make the cleaning process more sustainable, including, but not limited to:

- Replacing ready-to-use products when feasible and cost-effective with concentrates that can be diluted for different uses;
- Changing to a closed dilution system when feasible and cost-effective;
- Centralizing mixing operations to minimize employee over use if not using closed dilution systems;
- Improving cleaning effectiveness through product substitution, application technique changes, and staff training to reduce frequency of the need to re-clean;
- Setting appropriate and effective performance standards for what is considered “clean” (e.g., clean does not have to smell, frequency of cleaning does not have to be done at a set time but may vary based on need and use of a facility);
- Including performance-based requirements in contracts with outside service providers;
- Consolidating purchasing as appropriate (e.g., timing, amount, suppliers) to reduce costs; and
- Creating or updating a written waste minimization plan.

Training

Train workers to handle and apply cleaning products safely and effectively.

Whether using internal personnel or an external service provider, ensure cleaning staff have received proper training for the tasks they are performing. It is imperative that workers are well trained in the safe and proper use of cleaning in order to maximize cleaning effectiveness and minimize costs and sustainability impacts. Develop a schedule for employee training programs.

Ensure workers are trained for

- Expected task performance (e.g., cleanliness that is appropriate for the location such as identifying those few locations that require disinfectants and how often an area needs to be cleaned).
- Proper use and application of products that are used to “clean” compared to products that are used to “sanitize and disinfect”.
- Proper product preparation (e.g., portion control and dispensing, including any changes involving closed dilution systems).
- Safety practices (e.g., personal protective equipment; gloves, handling, ventilation).
- Proper use of new products. The amounts needed to be applied, application methods, and “dwell times” are key. For example, instead of applying and immediately wiping off the product, some products need to be applied to all pertinent surfaces for a specified “dwell time” before being wiped off. Also different types of facilities require different cleaning methods. For example, waterless urinals require a different cleaning method from the standard water urinals.

Work with product suppliers to understand how and why new products may work differently and train staff accordingly. Provide technical support to work with and address issues raised by the maintenance team using the new products. Consider conducting periodic surveys of custodial staff to find out if they feel they are properly trained, and if the products they use are effective for the tasks they perform. Additionally, it is important to ensure that outside service contracts provide all the necessary training for their personnel.

When the organization (whether internal or outside service contractor) initiates the training; the supplier of cleaning products can also assist in training facility employees (or provide references to companies that have training services) in areas related to:

- Maintaining compliance with recommended product list
- Matching the right product to the right cleaning challenge and appropriate surface
- Proper product application/dosage

- Appropriate safety precautions, such as proper ventilation and use of gloves, masks, etc.
- Using the correct cleaning method for the type of product or facility
- Availability of training materials in the language used by workers
- Training in compliance protocol regarding OSHA requirements for personal protective equipment (PPE), Globally Harmonized System (GHS) for product labels and safety data sheets, etc.
- Proper storage, handling, disposal, and recycling of products and associated packaging

Properly recycle and dispose of products

For packaging containers, consider implementing a system to make it easy for the users to identify which can be reused and/or recycled. Identify a clearly marked accumulation and storage location for those materials.

For waste/unused cleaning products, implement a system for determining the regulatory waste status of each product and train employees on how to properly accumulate and dispose of (or recycle) the waste/unused products

Behavior change studies show it is important to post signs where people might do the wrong thing. For example, San Francisco city departments post signs above trash cans indicating how to safely dispose chemicals like cleaners which are illegal to put into the trash. (<http://sfenvironment.org/article/municipal-recycling-and-composting/toxic-products-recycling-and-disposal-for-city>).

Performance Tracking

Implement a system to monitor of the performance and impacts of product and processes changes.

Consider using the American Physical Plant Administrators (APPA) Guidelines for auditing implementation of the new cleaning products and practices and measuring custodial effectiveness. A facility can adopt and use these indicators internally or hire external auditing services.

Consider conducting a facility occupant satisfaction survey to help in assessing and custodial effectiveness as well as the comfort of the building occupants. Occupants can report indoor air quality issues, including unpleasant “chemical” odors, disagreeable perfumed scents, or allergic responses to chemical products. Additionally, they can report visual or odor problems due to poor cleanliness, such as soiled surfaces or musty, mildew, or smoky or rotting odors. Track and compare survey results to custodial effectiveness and occupant satisfaction survey conducted on the previous products and processes.

REPORT

Use the Product Specification Collection Form to track metrics related to cleaning and sanitizing products to be reported to internal and external stakeholders as appropriate. The form can be used during each phase to complete the following activities:

- ANALYZE: document and benchmark current cleaning and sanitizing product spend, applications, attributes, and practices.
- PLAN: compare proposed product substitutions against the products currently in place.
- IMPLEMENT: collect data on substitute products being purchased and used.
- REPORT: document and track progress.

The Product Specification Collection Form contains both descriptive and quantitative metrics. The project team can define the metrics of interest associated with their project goals. This information can be pulled from the template and used in a summary report or dashboard format to view, track and report progress against project goals. Refer to the Product Specification Collection Form Instruction Document to view an example of how to complete the form.

Solicitation Language

The following examples of “green cleaning” contract and policy language may be useful for organizations seek-

ing to exercise leadership in their approach to purchasing of cleaning and sanitizing products and services:

- [Commonwealth of Massachusetts Green Cleaning Products, Programs, Equipment and Supplies: Attachment A: Mandatory Specifications and Desirable Criteria for FAC85](#)
- [Maryland Green Purchasing Committee Specifications for Janitorial Supplies](#)
- [San Francisco Contract Language](#) requires vendors to train city staff and to sell these green cleaners that city staff are required to buy (e.g., products with automatic dilution equipment, cleaners, degreasers, hand soaps, carpet cleaners and pre-spray, urinal blocks, furniture polishes, and floor care systems) and encouraged to try (e.g., disinfectants).

Challenges

Air Fresheners: Air fresheners often contain asthmagens (see below). Improving ventilation in restrooms helps preclude the use of air fresheners and reduces the cost of purchasing them.

Antimicrobial Cleaning and Sanitizing Products: An antimicrobial (such as disinfectants and antimicrobial hand cleaners) is an agent that kills microorganisms or inhibits their growth. For at least ten years, there has been rising concern about the efficacy and value of an increasing number of products making claims that they protect users and occupants from harmful bacteria and related disease/health risks.

Antimicrobial cleaning products have been on the market for many years and are used to sanitize/disinfect surfaces in many institutional settings (e.g., hospitals, bathrooms, kitchens). The U.S. EPA regulates hard surface cleaning products that are claimed to be antimicrobial under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA). The U.S. Food and Drug Administration regulates food contact or personal cleaning products (e.g., hand soaps)

While such products are carefully regulated with respect to whether they can safely kill bacteria and other microbes, concern has been raised regarding their ability to protect the health of building occupants. There has also been concern about whether long-term exposure to antibacterial actives is safe for people (e.g., an increased risk of cancer) and the environment (e.g., when discharged to rivers from sewage treatment plants). The controversy is most often focused on whether antimicrobial products are more beneficial than traditional cleaning products (e.g., soap or regular cleaners) for general use such as cleaning offices. There is also concern that the routine use of antimicrobial products can lead to increased “bacterial resistance.”

Purchasers should assess whether or not antimicrobial properties are necessary for a specific cleaning task, and if not, then a non-antimicrobial product may be preferred.

Cleaning products with antimicrobial ingredients are largely regulated (as pesticides) in the United States. As such, they are subject to strict labeling rules that limit the type of “green” or “sustainability” claims that can accompany the product. For this reason, the U.S. EPA has not allowed ecolabels to appear on the labels and product literature of registered antimicrobial products, yet there is market demand for products that are third-party approved to have lower impact for human and environmental exposure. To address the emerging demand, a pilot project in EPA’s Safer Choice program is evaluating and certifying some antimicrobial cleaners. Details on this Safer Choice effort are available online. Green Seal’s GS-53 Standard for Specialty Cleaning Products for Industrial and Institutional Use includes antimicrobial products, such as disinfectants and sanitizers, but certified products are only identified on Green Seal’s website due to current FIFRA labeling guidelines. A Green Cleaning, Sanitizing and Disinfecting Toolkit, prepared by the School of Public Health at the University of California, Berkeley, is also a useful resource in this area.

Asthmagens in Cleaners: Asthmagens are asthma-causing agents and are a concern in the workplace. According to New York State Department of Health, in at least one out of every six asthmatics, their asthma is made worse by workplace exposures. There is scientific debate around how to effectively identify asthmagens and reduce exposure to them. The New York State Department of Health and the State of New Jersey’s Environmental and Occupational Health offer lists of common occupational asthmagens, though there is no specif-

ic breakout of cleaning and sanitizing chemicals. A more comprehensive list is available from the American Occupational Environmental Clinic (AOEC) that includes many additional substances that have been reported to induce asthma. Green Seal and UL (formerly Ecologo) standards restrict the use of AOEC asthmagens in cleaning products certified by their programs, and as a matter of practice, Safer Choice labeled products do not include such asthmagens either.

Greenwashing: This word means green marketing that is deceptively used to promote the perception that an organization's products, aims or policies are environmentally friendly. With more interest in purchasing sustainable products, claims, logos and symbols have flourished. Often, sustainability is conveyed through color (usually green), pictures (water or green forests), and names ("green," "all natural" added to a name or description), and without any clear substantiation. In 2007, the "Sins of Greenwashing" study was published identifying the issue of false and misleading environmental claims.

The Federal Trade Commission (FTC) prohibits deceptive acts and practices in or affecting commerce and has provided guidance along with examples for evaluating claims. The FTC "Green Guides," more formally known as the "Guides for the Use of Environmental Marketing Claims," is a resource both for manufactures making claims, and purchasers evaluating the substance of claims associated with products to be purchased to ensure claims are truthful and non-deceptive.

Human Health Hazards and Exposure: Generally, there are two ways to approach health hazards - a precautionary approach or a risk-based perspective. Depending on your organization's approach, this may impact purchasing decisions.

Precautionary Approach: This approach takes the view that when an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically. Since the early 1990s, a number of programs have emerged that have focused on the disclosure and reduction of potentially hazardous ingredients in all "chemically intensive" products, including cleaning products. There is also concern that product ingredients are not identified, and potential hazards of long-term exposures to some chemicals are not always well-characterized. Much of the focus has been on ingredients that present long-term health hazards such as carcinogens, developmental/reproductive toxins, allergens/sensitizers, and most recently potential endocrine (hormone system) disruptors. To facilitate policies and purchasing decisions, some organizations seek to require full disclosure of all ingredients in cleaning products, and to eliminate or ban any chemical that is classified as potentially hazardous. From the standpoint of selecting more sustainable products, it may be helpful for purchasers to understand these approaches. Most of the existing ecolabel programs are focused on "hazards reduction".

Risk-based Perspective: This approach contends that the mere presence of a potentially hazardous ingredient in a product does not mean that the product is unsafe, and that cleaning products can (and should) be properly formulated and used in ways that minimize the risk of unsafe exposures to any ingredient. This approach may not capture the chronic effects of long-term, low dose exposure or from multiple chemical exposures. Some manufacturers have concerns that requiring the disclosure of all ingredients in a product can compromise the protection of Confidential Business Information (CBI), without providing an additional benefit from a safety standpoint.

Ecolabels and Environmental Standards: There are over 450 ecolabels used around the world so it's not easy to know which ones are trustworthy and reputable. Even though these standards and ecolabels aim to define and communicate what is greener, they must be developed in a way that is reputable to truly know a product is greener.

The U.S. EPA is piloting Draft Guidelines for Product Environmental Performance Standards and Ecolabels for use in federal procurement. These guidelines recommend a consistent approach to standards and ecolabels and will help purchasers identify which private sector standards and ecolabels should be considered when buying green products.

Generally, purchasers should look for standard-setting organizations that have a good process for developing a standard (one that is transparent, consensus-based with multiple stakeholders representing various sectors), address key environmental measures, have transparent assessment practices, and provide effectively managed programs.

Green Product Costs: For many years, the perception among buyers is that greener products cost more than traditional products. While in some cases this may be true, there are other costs to factor into the equation. There are submerged costs to products that may cost organizations money. Greener products generally reduce the costs associated with energy, water, waste and medical related costs associated with exposure to chemicals of concern, such as volatile organic compounds (VOCs). These submerged costs are not considered in purchasing decisions and yet may impact other budgets.

Communities bare additional cost impacts as well from products purchased. Products may increase waste or water use, harm water or air quality or harm human health in the community. Therefore, when considering costs of products, an analysis should factor in the total cost of ownership (use, maintenance and waste) costs beyond the purchase price.

Use a Total Cost of Ownership tool, if available, to provide a standardized framework to easily assess these submerged costs particularly when a product may impact energy, water and waste costs. U.S. EPA offers a Total Cost of Ownership calculator to incorporate lifecycle costs into electronic acquisition decisions.

Case Studies

The following is a list of green cleaning programs that offer a comprehensive approach. These programs address product purchases including cleaning chemicals, sanitary paper, equipment, plastic liners, entry mats and more, as well as worker training, and other issues that may be helpful.

- State of Massachusetts [Green Cleaning Products Case Studies](#)
- [Sustainable Purchasing Video: Cleaning Products](#), San Mateo County. Environmental Health, 2012

Resources

The following programs offer additional standards or product selection tools covering cleaning products, floor care, laundry, hand soap, and more.

- [San Francisco Department of Environment and Green Purchasing Institute's alternatives analysis](#) to identify the safest disinfectants. The report examined worker health hazards, environmental impacts, effectiveness for various disease organisms, length of time needed to kill germs, and compatibility with surfaces.
- [Sustainable Purchasing Fact Sheet: Cleaning Products](#) (San Mateo County Environmental Health, 2012). This fact sheet describes practices that protect the health of your building's users and cleaning staff. It also highlights reliable tools to help purchasers choose products that perform well without unwanted side effects.
- Healthy Schools Campaign Green Clean Schools program, includes 5 Steps to Green Cleaning, product directory, and other tools. <http://greencleanschools.org/>
- [Green Cleaning for Healthy Schools Toolkit](#)
- [The Real Costs of Green Cleaning](#), San Francisco Department of the Environment, 2010: This market survey by SF Environment shows that the costs of most green cleaning products for institutional use are equivalent to their mainstream equivalents. Also highlights the higher cost of ready-to-use (RTU) products and aerosol products compared to concentrates.

Webinars

- Engineered Water: Cleaning Without Chemicals? [Video](#), [Slides](#)
- Green Cleaning & Infection Control [Video](#), [Slides](#)

- Responsible Purchasing Network's [Safer Disinfectants Webinar](#) (May 2013): This covers environmental and health risks associated with conventional disinfectants; availability, benefits and efficacy of safer products; strategies for purchasing and using safer disinfectants; and case studies of childcare centers and schools that have successfully transitioned to safer disinfecting methods.

Product Directories

- New York State [Office of General Services](#) Green Cleaning Program [Approved Products list](#)
- San Francisco Department of the Environment SF [Approved product directory](#)
- U.S. Government's [Sustainable Facilities Tool: Cleaning Products](#) (US General Services Administration). A database of green cleaning products that comply with various federal purchasing requirements and guidelines. Includes Safer Choice cleaners, CPG-compliant towel and tissue products plus ENERGY STAR, WaterSense, BioPreferred, etc.
- The [UL Sustainable Product Guide](#) lists products that meet GREENGUARD and ECOLOGO criteria.
- [Directory of Green Seal-certified products and services](#)
- List of U.S. Environmental Protection Agency [Safer Choice Products](#)

Integrated Pest Management

Integrated Pest Management (IPM) involves integrating multiple control methods based on site information obtained through inspection, monitoring, and reports. Every IPM program is designed based on the circumstantial pest prevention goals and eradication needs¹. IPM covers both indoor pests (e.g., rodents and insects) outdoor, plant-based pests, and wildlife including pest birds.

Service categories include General Pest Control (e.g., ants (all species), fleas, cockroaches, filth flies, occasional invaders, stored product pests (including pantry and fabric pests), stinging insects and spiders), Single-Use Service (e.g., bed bugs, wood-destroying insects (including termites), rodents (including mice, rats, gophers), birds, bats, ticks, and mosquitoes), Termite Control, and School Integrated Pest Management (may be separate from General Pest Control in some states).

LAUNCH

Assemble a team.

Convene the cross-functional team that will develop and implement the integrated pest management program. Consider including procurement and sustainability professionals, developers, pest management professionals, cleaning staff or contractors, building management and operations representatives, building occupant representatives, building maintenance representatives, and landscaping employees or contractors. Identify roles and responsibilities for all parties.

ANALYZE

Assess current pest management practices

Establish a baseline for benchmarking purposes by compiling relevant information regarding current pest management practices. Data analysis is a critical component in the planning of future purchases, understanding subsequent impact and minimizing negative outcomes.

Types of relevant information includes, but is not limited to:

- Current IPM program and policies
- Pest monitoring practices
- Sanitation practices in buildings and on grounds
- Solid waste management practices

- Mechanical pest control measures in place
- Biological pest controls measures in place
- Chemical pesticides used

Set goals for integrated pest management

Based on a review of the current pest management practices with the cross-functional team, set specific goals to achieve through the development and implementation of an integrated pest management program. For example, improve monitoring activity on-site, provide IPM training to all building and grounds maintenance personnel, increase occupant satisfaction regarding pest control and monitoring, or improve notifications regarding pest response.

PLAN

Develop an IPM Program

An Integrated Pest Management Program will help an organization to proactively prevent pests, save money, and reduce risks to human health and the environment.¹ To develop an IPM Program, complete the following tasks with the cross-functional team, as recommended by the U.S. Green Building Council's [LEED for Existing Buildings Program](#):

- Establish an inspection schedule as well as a reporting system that allows for providing evidence of pest infestations.
- Create action thresholds for all pests likely encountered in the building. Determine a process for modifying action thresholds, if necessary. Pest response actions should include a combination of pest monitoring, good sanitation practices, education, appropriate solid waste management, building maintenance, cultural pest control measures, mechanical pest control measures and biological pest controls. Strive to only use chemical pesticides may as a last resort, and ensure that pesticides used are EPA-registered.
- Determine nonchemical pest prevention and control methods to be used when action thresholds are exceeded.
- For each pest, list all potential control methods considered and adopt the lowest-risk options, considering the risks to the applicator, building occupants, and the environment.
- Give preference to the use of least-risk pesticides. If a pesticide that is not in the least-risk category is selected, document the reason.
- Develop a mechanism for documentation of inspection, monitoring, prevention, and control methods and for evaluation of the effectiveness of the IPM plan.

Use the recommendations within the Resources Section to consider potential program components, and document the program using USGBC's [Integrated Pest Management Plan Template](#).

IMPLEMENT

Provide training and incentivize the use of professional certifications

A key component of a successful Integrated Pest Management Program includes providing appropriate training to employees and contractors who are responsible for program implementation. The organizations below provide training and education and, in some cases, professional certifications to help ensure effective IPM.

- The [IPM Institute of North America](#) promotes IPM use in all settings, and operates several IPM certification programs including IPM Star for schools and GreenShield Certified for Pest Management Professionals
- The Foundation for Professional Pest Management administers the [QualityPro Certification](#) which certifies pest control companies based on professional standards. QualityPro Certified companies may offer [GreenPro Certified Service](#)
- All U.S. States and Territories have an [IPM coordinator](#), usually located at land grant universities and are aware of research and training opportunities for IPM in their university, state, and region.

Incorporate contractor qualifications in solicitation materials

Consider using the following qualifications in solicitation materials, to better ensure properly trained personnel.

- Companies performing on the contract must meet state requirements for applying pesticides ([find state regulatory agency contacts](#))
- Company must provide certificates demonstrating current certification for pest management, such as [QualityPro](#), for every employee who will be performing on-site services under this contract.

The State of Massachusetts developed IPM solicitation documents for [Integrated Pest Management](#) and [School Integrated Pest Management](#), which organizations may find useful in creating their own solicitations.

Integrated Pest Management in the City of Boulder

Excerpt from The City of Boulder's 2011 Annual Report: Integrated Pest Management

The City of Boulder follows a step-wise progression for treating pest issues, with the use of pesticides, both synthetic and natural products, being a last resort. The pest is first assessed. For example, noxious weeds on natural lands are mapped and the location and density is recorded. Next, a threshold is established. For many pests, tolerance for pests can be fairly high. But in some cases, laws and regulations may require zero tolerance. An example is the Colorado State Noxious Weed Act, that requires the eradication of specific weeds. This law not only applies to public lands, but to privately owned lands as well. In this case, the threshold is set by legal requirements which mandate that action be taken whenever specific weeds are present. But in most cases, thresholds are set based on maintenance priorities for specific sites. Broadleaf weeds, such as dandelions, are tolerated at higher levels in general-use park grass than on athletic fields, for example. If the threshold is exceeded and treatment of the pest is necessary, the city's IPM Policy directs staff to follow this hierarchy of actions for addressing pest issues:

- **Prevention** is the first and most important step in the IPM program. Prevention can occur at either the design or management stage. Examples of prevention are sealing cracks and holes to prevent mice from entering a building or using seed-free mulch or soil to prevent weeds from invading.
- **Cultural control** is a broad set of management techniques that manipulate the environment to make it less favorable to pests. Examples of cultural control include vegetation management such as mulching, aeration and pruning, or sanitation to clean or remove a source of pest infestation.
- **Mechanical control** is the physical control of pest populations. This can be done by hand or with equipment. Examples include weed-whipping, hand-pulling weeds or removing insects or insect eggs by hand.
- **Biological control** utilizes natural enemies to control pests through either an introduction of natural enemies or providing harborage for natural enemies. Examples of biological control include release of ladybird beetles for control of aphids or the use of wasps in sewer tunnels that parasitize cockroach egg cases.
- **Chemical control** of pests is the last resort used by the city when all other methods have failed or are cost prohibitive. When chemicals are applied, products may only be used if they are on the city's prescreened Approved Pesticide List or follow interim guidelines that were put in place in 2011, while the pesticide approval process was evaluated. The method and timing of any treatment must give consideration to protecting human health, non-target organisms, water quality and the environment. In almost all cases, spot treatments or hand application to cut stems or stumps are the methods used for chemical applications.

[See more information>>](#)

REPORT

Report program results to internal and external stakeholders and monitor performance for continuous improvement opportunities. Consider using the following metrics:

- Changes to pest monitoring practices
- Improvements to sanitation practices in buildings and on grounds
- Improvements to solid waste management practices
- Changes to mechanical pest control measures in place
- Changes to biological pest controls measures in place
- Decrease in chemical pesticides used
- Improved occupant satisfaction
- Improved worker health and safety

Resources

- National Pesticide Information Center: <http://npic.orst.edu/>
- Internet Center for Wildlife Damage: <http://icwdm.org/>
- State of Michigan [Integrated Pest Management Training Manual](#)

Outdoor Plant-Based Pests

- Portland Parks and Recreation Integrated Pest Management Program (2015) <https://www.portlandoregon.gov/shared/cfm/image.cfm?id=116237>
- City of Portland. [Integrated Pest Management Program](#).
- District of Columbia Office of Contracting and Procurement Environmentally Preferable Landscaping Services – Small Purchase Agreement (including IPM planning and reporting requirements for contractors) <http://ocp.dc.gov/node/996442>
- Lady Bird Johnson Wildflower Center. [SITES Rating System v2.0](#). See Section 8: Operations + Maintenance.

Structural Pest Management

- Pest Prevention By Design: <http://sfenvironment.org/download/pest-prevention-by-design-guidelines>
- GreenPro Service Principles: <http://www.whatisgreenpro.org/about-greenpro.aspx>
- StopPests in Housing Program: <http://www.stoppests.org/what-is-ipm/using-ipm/>
- USGBC Integrated Pest Management Plan Template <http://www.usgbc.org/resources/eqc-integrated-pest-management-plan-template>
- Pesticide Research Institute Product Evaluator <http://www.pesticideresearch.com/site/evaluator/>
- National Pest Management Association: <http://www.whatisipm.org/>
- U.S. Environmental Protection Agency. [Integrated Pest Management in Buildings](#). Nov. 2011.
- City of San Francisco. [Pest Prevention by Design Guidelines](#).

Landscaping and Grounds Maintenance Guidance

The scope of this purchasing category includes exterior-applied landscaping products, such as fertilizers and mulch, herbicides, pesticides, and insecticides.

Impacts of Landscaping and Grounds Maintenance Products Purchasing

Landscaping and grounds maintenance activities present a host of impacts, both on site and locally. For example, heavy uses of fertilizers, mulch, herbicides, pesticides, and insecticides can produce toxic impacts, such as altering the PH levels in soil. These chemicals runoff into nearby sewers and waterways, producing negative water quality impacts, and may cause harm to wildlife and other animals. Local air quality can also be nega-

tively impacted through the running of machinery and equipment to maintain sites. The use of chemically intensive products on landscaping and grounds can have a negative impact on human health, particularly those producing and applying products, and those in close proximity.

The Business Case for Addressing Sustainability in Landscaping and Grounds Maintenance Products Purchasing

There are a variety of reasons to address sustainability in the context of landscaping and grounds maintenance. First, reducing chemical use on site is a safety and cost savings measure. Finding less chemically intensive ways to maintain the grounds will likely mean less money spent on accidents and injuries. Additionally, there are hazards and inventory costs to storing chemicals used for grounds maintenance. Finally, finding ways to maintain the grounds in a less chemically intensive way means less money spent on disposal and waste management.

LAUNCH

Follow the steps below to build an understanding of the sustainability impacts of landscaping and grounds maintenance products use, how to assemble a team to address this purchasing area, and complete an initial scoping of the project.

Review the opportunities for improving sustainability attributes associated with purchasing landscaping and grounds maintenance products

Review the impacts in the table above to understand the key sustainability considerations associated with the procurement of landscaping and grounds maintenance products. How do these impacts relate to the organization's existing goals, policies, or directives? Are there opportunities to align efforts?

Determine the necessary people for this team

Convene the cross-functional team that will develop a plan for improving the sustainability attributes associated with landscaping and grounds maintenance. Consider including procurement and sustainability professionals, facilities managers, representatives from landscaping and/or grounds keeping, community representatives (particularly if it is on or near public space). If a commercial office spaces, include someone from property management, and/or tenant representatives.

Describe the proposed scope of work for the project

Consider an initial scope of work for the team to address.

- What is the purpose for bringing the team together?
- What are the short- and long-term goals of the engagement?
- Who in the organization is included within the scope?
- What is the initial area of focus for this initiative (e.g., integrating sustainability considerations into a grounds maintenance contract coming up for renewal; training current grounds maintenance staff on how to appropriately use new and/or preferable products, etc.)

ANALYZE

Establish a baseline for benchmarking purposes

Establish a baseline for benchmarking purposes by compiling relevant information regarding current use of landscaping and grounds maintenance products. Data analysis is a critical component in the planning of future purchases, understanding subsequent impact and minimizing negative outcomes.

Types of relevant information includes, but is not limited to:

- Brand name of products
- Functional use of product (e.g., insecticide, pesticide, etc.)
- Quantity purchased
- Cost per unit
- Record of where the products have been applied – what is the scope of the application?
- Amount of stored material currently available, in units (e.g., 6 gallons, 14 ounces, etc.)
- Process for clean up of a product, including any special handling of applicators or materials
- Personal Protective Equipment required for use
- Sustainability attributes

Consider the following questions about each product's performance characteristics. This data will help to create a baseline for potential additional costs or savings, as well as tracking past additional costs due to poor quality materials. For example,

- How well do products perform related to their intended use?
- Do some products require repeat applications to be effective?
- Has the staff experienced health issues or injuries from use of products?
- Were disposal costs incurred that could be avoided if different products were used?
- Could changes to the landscape profile impact the type of landscaping maintenance products, or the amount of product required to maintain them?

Set goals for landscaping and grounds maintenance products purchases

Given the information gathered during data collection and analysis, set specific goals to reduce the impact of these purchases. For example,

- Increase in the use of native plantings
- Decrease in the amount of chemicals used for grounds maintenance
- Decrease in water intensity of grounds maintenance
- Decrease in accidents and injuries
- Decrease in disposal costs
- Establishment of an IPM program

PLAN

Identify a set of strategies for incorporating sustainability considerations into the management of this category of spending.

Use Landscaping Design Practices that Minimize Maintenance

When the opportunity is available to make changes to the design of landscaping on-site, consider the following strategies to minimize maintenance and save money by reducing water and pesticide use.

- Use native plantings: Native plants are plant species that occur naturally in a particular region, are adapted to local conditions and require less pesticides, fertilizers, and water than non-native plants. Areas that are landscaped with native plants benefit other wildlife, and improves retention of stormwater, thereby reducing pollutants entering local rivers. The Lady Bird Johnson Wildflower Center maintains a [Native Plant Database](#) that provides information by State, habit, lifespan, soil moisture and light requirements, and leaf and size characteristics.
- Use Xeriscaping: Xeriscaping is landscaping with slow-growing, drought-tolerant plants to conserve water and establish a waste-efficient landscape. [Learn more here>>](#)
- Use plants that require less water to maintain.

- Use plants with natural resistance to pests.

Use chemical treatments sparingly, and with improved sustainability attributes

Whenever possible, minimize the use of chemical treatments for landscaping and grounds through design and [Integrated Pest Management](#). When chemical treatments must be used, incorporate the following sustainability attributes into purchases.

- **Pesticides:** use least hazard pesticides, according to [San Francisco Reduced Risk Pesticide List](#) (2016)
- **Fertilizers:** use USDA Organic fertilizers
- **Herbicides:** use least hazard pesticides, according to [San Francisco Reduced Risk Pesticide List](#) (2016)

Ensure that products are being applied for the registered and intended use, and that proper training is provided to maintenance personnel.

Incorporate landscape maintenance best practices into operations

Consider incorporating the following strategies into the general operations for landscaping maintenance to reduce the spread of weed populations and minimize the need for chemical interventions.

- Properly mow and irrigate turf areas to increase vigor and reduce weed populations.
- Mulch planting beds to reduce establishment of weeds.
- Apply selected herbicides to control invasive weeds and prevent their spread.
- Release natural biological control insects to control invasive weed infestations.
- Implement an [integrated pest management program](#).

IMPLEMENT

Execute the plan, make relevant purchases, and establish ongoing performance tracking.

Provide training to grounds and maintenance personnel. Ensure personnel obtain adequate training for the safe and appropriate use of products, and that applicators use the correct PPM for application solutions.

Consider requiring certifications for pest control contractors, such as Green Shield (IPM Institute of North America), EcoWise (San Francisco Region), or MPMA Green Pro (National Pest Management Program).

Landscaping Services Procurement in the District of Columbia

The District of Columbia Sustainable Purchasing Program was built to formalize sustainable purchasing efforts across the District of Columbia, while simplifying what had previously been a confusing, cumbersome, and sporadic activity. In 2014, the District identified 14 product and service categories (including landscaping services) for which guidance and supporting documentation would be developed, ranked based upon the following criteria:

1. Total spend across the Enterprise broken down by product category.
2. The existence of laws that promote similar environmental goals achieved through the purchase of an environmentally preferable product.
3. Alignment with over-arching Sustainable DC goals. (In total, the SPP specifications help to promote 25% of the goals established for the District over the next 20 years).
4. The prevalence of credible ecolabels for a given product or service.
5. The prevalence of other jurisdictions who purchase sustainable versions of a given product or service.
6. The complexity or level of difficulty associated with developing environmental guidance for a specification.

The DC Office of Contracting and Procurement developed landscaping services sustainability specifications

consistent with leadership activities taking place in other jurisdictions throughout the United States, and is now tracking the use of these specifications through their ERP system. Their resulting deliverable includes publicly available [specification guidance, statement of work guidance, small purchase requirements, contractor reporting templates, and training materials](#).

[Read more here>>](#)

REPORT

Report program results to internal and external stakeholders and monitor performance for continuous improvement opportunities, such as the following:

- Increase in the use of native plantings
- Decrease in the amount of chemicals used for grounds maintenance
- Decrease in water intensity of grounds maintenance
- Decrease in accidents and injuries
- Decrease in disposal costs
- Establishment of an IPM program

Resources

- [Landscaping Services: Sustainable Specification Solicitation Documents](#): District of Columbia Office of Contracting and Procurement.
- [Site Management Policy Template](#): LEED v4 O+M
- [Saving the Pollinators Webinar](#): Responsible Purchasing Network, July 2015

Paints and Coatings Guidance

The scope of this purchasing category includes architectural coatings such as paints, coatings, and varnishes, widely and frequently used in institutional settings (referred to as “coatings” throughout this document). This category encompasses architectural coatings, defined as a coating recommended for field application to stationary structures and their appurtenances at the site of installation, to portable buildings, to pavements, or to curbs. The scope excludes those coatings recommended by the manufacturer or importer solely for shop applications (e.g., original equipment manufacturing), or application to non-stationary structures, such as vehicles, airplanes, ships, boats, and railcars¹. This section also excludes adhesives and sealants for architectural or industrial use.

This guidance provides recommendations based on the impacts associated with the use and disposal of these products.

Impacts of Paint Coatings

Use Phase

	Coatings may emit Volatile Organic Compounds (VOC) during application, which contribute to air pollution and smog formation. VOCs released during application of coatings can mix with air
Air Pollution & Smog Formation	pollutants from other sources, such as vehicles, factories, burning of fossil fuels, etc., and can lead to the formation of ground-level ozone, a significant component of smog. In humans, ground-level ozone can damage the respiratory tract, cause inflammation and irritation, and worsen asthma. Crops, forests, and native plants are also damaged by ground-level ozone ³ .

Worker Health and Safety

Coatings may pose a risk to worker health and safety if improperly handled and applied, or if proper personal protective equipment (PPE) is not used. Coatings and their application may present physical and health hazards, including flammability, combustibility, and exposure to toxic substances that may lead to serious injury or death. Failure to review product labels and hazard communication information such as training, use of PPE, proper ventilation, and reliance on professional applicators greatly increases the risk of harm.

Indoor Air Quality

Coatings may negatively impact indoor air quality and affect the health of building occupants during and after application to interior surfaces. Coatings release emissions that may negatively impact indoor air quality and the health of building occupants. According to the U.S. Environmental Protection Agency, VOC concentration levels inside buildings, particularly during application of high-VOC content materials, may be significantly higher than concentrations outdoors. Emissions in the indoor air environment can have short- and long-term adverse health effects. High levels can lead to eye, nose and throat irritation, headaches, loss of coordination, nausea, and organ and central nervous system damage; some VOCs are also likely carcinogenic²

Disposal Phase

Waste Generation

If not safely handled and disposed of, leftover coatings create hazardous and nonhazardous waste streams that may negatively impact the environment. The U.S. Environmental Protection Agency estimates that 10% of architectural coatings remain unused and are disposed of. Leftover architectural coatings are of concern as they may contain chemicals like solvents and metals that harm the environment and impact human health if disposed of improperly. While there are opportunities for reduction, recovery, reuse, and recycling, coatings that remain in the waste stream result in significant waste management costs and potential harm to the environment¹.

LAUNCH

Follow the steps below to build an understanding of the sustainability impacts of coatings use, how to assemble a team to address this purchasing area, and complete an initial scoping of the project.

Review the opportunities for improving sustainability attributes associated with purchasing coatings

Review the impacts and business case details above to understand the key sustainability considerations associated with coatings purchasing and application. How do these impacts relate to the organization's existing goals, policies, or directives? Are there opportunities to align efforts? For example, does the organization have health and safety or indoor air quality goals toward which more sustainable purchasing in this category could contribute?

Determine the necessary people for this team

Convene the cross-functional team that will develop a plan for improving the sustainability attributes associated with coatings purchases. Consider including those who specify coatings, applicators, staff who clean and maintain coated surfaces, and occupant representatives. If a contract exists for coatings supplies, consider a supplier representative, as well as a representative from the selected contractor(s).

Include operations staff who would be involved in coordinating or completing tasks during application activities, i.e., removing wall hangings, coordinating packing up office supplies and desk areas as necessary, preparing the substrate for coating application, etc.

Describe the proposed scope of work for the project

Which areas are within the scope? How are these areas used (e.g., office space, meeting rooms, kitchen, etc.)? What is the anticipated completion date of the project?

ANALYZE

Establish a baseline for benchmarking purposes by compiling relevant information regarding current utilization of coatings. Data analysis is a critical component in the planning of future purchases, understanding subsequent impact and minimizing negative outcomes.

Types of relevant information includes, but is not limited to:

- Brand name of products
- Type of coating
- Performance specifications
- Quantity purchased (e.g., gallons for paint or varnishes, ounces for sealants, etc.)
- Cost per unit
- Details on color/tint/etc. (if applicable)
- Finish (e.g., matte, gloss, if applicable)
- VOC content (maximum allowable)
- VOC emissions (if available)
- Record of where the products have been applied
- Amount of stored material currently available, in units (e.g., 6 gallons, 14 ounces, etc.)
- Process for clean up of a product, including any special handling of applicators or materials
- Personal Protective Equipment required for use
- Waste management for left over materials
- Performance of materials (narrative response from maintenance team/occupants)

The specifier of these materials is likely to have the best data for the purchase-related questions; facilities staff should have current product inventory data, locations where products have been applied, and performance specifications of materials for intended use. Consult manufacturers and Safety Data Sheets to obtain detailed product information.

Consider the following questions about each product's performance characteristics. This data will help to create a baseline for potential additional costs or savings, as well as tracking past additional costs due to poor quality materials. For example,

- Does the coating hold up to regular cleaning and maintenance?
- Has reapplication been necessary to address chipping, blistering, poor adhesion, or other issues beyond normal wear and tear?
- Are floor coatings wearing out quickly in high traffic areas?
- Are substrates properly sealed?
- Has the staff experienced health issues in newly coated space(s)?
- Were disposal costs incurred that could be avoided?

Set goals for coatings purchases

Consider the following options for setting goals related to current and future coatings purchases.

- durability,
- product coverage,
- product/substrate compatibility,
- extended service life

- ease of maintenance
- reduced waste generation
- improved worker health and safety
- reduced VOC content or emissions levels
- waste minimization
- avoidance of listed chemicals

PLAN

Identify a set of strategies for improving the sustainable attributes of future coating purchases.

Based upon the analysis completed in the previous step, outline options for obtaining the best product(s) for the intended application. Evaluate coating needs and the intended uses for the purpose of purchasing the correct amount of materials with the appropriate functional characteristics (e.g., brightness, color, durability, etc.). Consider purchase of a sample size of the product to test coverage, ease of maintenance, etc. Review any organization-specific requirements for product review and approval (such as Environmental Health and Safety requirements) prior to making any purchases.

Purchase Coatings with Low VOC Emissions

Low-emitting interior coatings limit exposure levels of workers and occupants to unsafe levels of toxic chemicals, improve indoor air quality and reduce negative occupant health impacts associated with coatings use. All product certifications and manufacturer claims regarding low-emissions products should comply with the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers Version 1.1 (also known as CA 01350), which include health-based emissions criteria for evaluating the potential indoor air quality impacts from a range of building materials.

The following certifications test to the CDPH Standard Method v1.1 protocol:

- **SCS Indoor Advantage Gold, Most Recent Version:** Includes certification for both coatings.
- **ULE 2818 GREENGUARD Gold Standard, Most Recent Version:** Includes building materials, finishes, and furniture.
- **Green Wise Gold¹**

Purchase coatings that address multi-attribute sustainability performance criteria

Whenever possible, purchase coatings that address multi-attribute sustainability performance criteria, including functional performance requirements, low- or no-VOC content, and durability. Relevant certification programs, and a summary of the areas addressed (as of March 2016) are described in the [SPLC Paints and Coatings Certification Program Comparison Table](#). The table includes information on the following certification programs:

- Cradle2Cradle
- Green Seal GS-11
- Green Seal GS-43
- Green Wise
- MPI Extreme Green Performance Standard GPS-1-12 and GPS-2-12
- UL 2760 Paint Standard (formerly EcoLogo 48)
- In addition to multi-attribute certifications, the USDA BioPreferred Program (shown in table) provides information and voluntary label certifications of the biobased content of paints and coatings, and can be used in addition to the aforementioned certifications.

If the purchasing organization prefers to specify performance criteria as opposed to a specific product certification program in solicitation and contract documents, select the most rigorous performance criteria ad-

dressed within the standards.

If the organization is addressing only VOC content requirements, specify those that meet or exceed model regulatory programs, as shown in the table below.

Model Regulatory Programs

Program	Description	Allowable VOC Limit	Full Standard	Compliant Product Listing
South Coast Air Quality District Rule 1113 for Architectural Coatings	Provides VOC emissions limits for paint, wood finishes, floor coatings, stains, primers, sealers, and shellacs applied to any architectural surface in the Los Angeles Air Basin. These criteria could be implemented in other areas and used as criteria for purchases.	See Table of Allowable VOC Limits by coating category	Full Standard from www.aqmd.gov	Compliant product listing from www.aqmd.gov
California Air Resources Board 2007 Control Measures for Architectural Coatings	Model rule for California for air districts to use within their local architectural coatings rules; these criteria could be implemented in other areas and used as criteria for purchases.	Architectural Coatings Program - VOC Limits	Full standard from www.ab.ca.gov	List not available

When possible, purchase products from manufacturers with “take back” programs available in U.S. states participating in the PaintCare Program. A list of paint drop off locations is available at the [PaintCare web-site](#).

IMPLEMENT

Execute the plan, make relevant purchases, and establish ongoing performance tracking

If purchasing is completed in house, ensure that the purchaser is aware of sustainability requirements established by the team. Provide available links to product directories or lists of products that meet relevant sustainability requirements.

Consider expanding the use of coatings with improved sustainability attributes over time, using the current project as a model. For example, the team may want to consider a trial of low-VOC or no-VOC coatings for an upcoming job before it would be more broadly applied to future purchases. The project scope would then not only include preparation, purchasing, and training for this particular job, but also monitoring of the coatings performance and durability for potential use in subsequent projects.

Consider opportunities within the plan to cause as little disruption to operations as possible. For example, are there immediate obstacles or opportunities that could be addressed by adjusting the anticipated timing of application? Application will often result in disruption to office operations (e.g., moving furniture, packing office supplies and desk areas, removing wall hangings, etc.), and it is worth considering the best target date for application. For example, if numerous staff will be attending a conference or off-site event, is it possible to schedule application dates to coincide? Are there days when more employees work remotely, or are otherwise out of the office?

For all coatings purchases, be sure to only purchase the necessary amount of materials for the appropriate use and application, including minimal amount for future touch up

Speak with experienced sales professionals to understand how much paint will be needed to properly coat a given substrate. Consider square footage needing coverage, degree of color change from the current coverage, surface texture and use of primers. See <http://www.paintcare.org/waste-less/> for additional considerations.

When purchasing products that have not been previously used, consider purchasing a sample and spot test to ensure that the product meets functional and performance requirements. This approach will reduce hazardous and nonhazardous waste, re-work and maintenance time, increase material efficiency and overall cost effectiveness. It may also help build support and approval for the use of new products, if there is resistance to changing from materials that are normally used. Confirm with paint manufacturer that the product is compatible with the substrate and existing finishes and primers already applied. New product purchase planning should consider the costs of new equipment needed for application and maintenance, such as specialty spray guns, brushes, rollers, and appropriate cleaners.

Input relevant sustainability criteria into bidding documents

When going out to bid to potential service providers for a project, include requirements for bidder to explicitly identify all coatings products to be used and communicate any organization-specific product review and approval requirements prior to use. Require service providers to explicitly identify all the coatings that they intend to use, and note agreed-upon products and application methods in the service contract.

If both internal purchases and external, contracted coatings services are used for the organization, utilize the same specifications to ensure consistency regardless of where or with whom the purchases occur.

Responsible Purchasing Network's "Green Purchasing Best Practices: Architectural Coatings"

Consider the following recommendations excerpted from the Responsible Purchasing Network's "Green Purchasing Best Practices: Architectural Coatings:"

For bid specifications:

- Require multi-attribute product certification or other relevant attributes explored above, whenever it is likely to yield competitive bids.
- Consider issuing a Request for Information (RFI) to gain information about the availability of these products from vendors in your area.
- Create an Environmentally Preferable Bid List

- Consider a “Brown List” of products prohibited from the contract when plenty of preferable options are available.

- Consider using the Model Bid Sheet to track vendor submissions, available here:

http://responsiblepurchasing.org/opportunity_assessments/paint/supp_doc_c_model_bid_sheet.xls

Once bids are received:

- Organize product information to facilitate an apples-to-apples comparison using the Model Bid Sheet.
- Award bids by choosing 1) a single vendor based on best-priced bid or core list items, 2) multiple vendors based on best line-item prices, or 3) multiple vendors by product category or region.
- Compare prices of equivalent products on bid or core lists.

Evaluating Vendors:

Consider awarding points to bidders offering the widest variety of coatings that meet your specifications, a user-friendly labeling system, “Green Spend Reports,” full disclosure of chemicals ingredients, sustainable packaging and transportation methods, and/or paint recycling services.

Train workers to handle, apply, and maintain coatings safely

Ensure workers are trained to safely use and apply products, use personal protective equipment as appropriate, provide adequate ventilation during application, and rely on professional applicators when necessary. Additionally, use appropriate cleaning agents to maintain painted surfaces to ensure that durability and performance characteristics are not compromised.

Train workers to properly recycle and dispose of excess coatings

Properly recycle or dispose excess or leftover coatings through municipal waste and recycling programs, or extended producer responsibility program. To prepare unwanted coatings products for safe disposal, ensure lids are secured tightly, containers are not leaking, and all coatings are in their original containers with their original label. Do not inter-mix paints prior to disposal. Maintain a sufficient supply of paint and finishes for future touch up and maintenance as needed.

Refer to PaintCare for resources on how to properly dispose of leftover products, and to find drop-off sites for U.S. locations enrolled in the PaintCare Program. <http://www.paintcare.org/drop-off-locations/>

The above actions can reduce environmental impacts of disposal through reduced material use, reduce employee health impacts and reduced disposal costs from over-purchasing materials.

Challenges

Changing Behavior: Once a facilities staff begins using a particular type of paint, it can be difficult to change products, even if performance, durability and health advantages are demonstrated. To encourage adoption of change, involve staff members in early conversations related to the planning and purchases of coatings. To reduce disruption of operations, ensure samples are tested in advance and appropriate application and maintenance materials are purchased ahead of time. For example, if shifting from oil to latex-based or low-VOC paints, new application equipment may be necessary and require an up front investment. Actively follow-up with staff to determine if the new products are meeting performance requirements and if intended benefits are being realized.

Low-VOC and No-VOC Products and Durability Requirements: On occasion, low-VOC content or emission products will not have the same durability as conventional products. It is important to consider the use, substrate, and durability requirements for the space when making purchasing decisions. Also, consider the extent that current coatings purchases are meeting requirements for durability, coverage, ease of maintenance, service life, etc., and the extent coatings with improved sustainability attributes may address these requirements.

Assessing Cost and Sustainability Attributes: Purchasing coatings with improved sustainability attributes, such as low- or no-VOCs, may initially be viewed as more expensive than their conventional counterparts. It is important to assess the lifetime costs of purchases, including the impact to the environment (short- and long-term), equity (will the purchase have a positive or negative impact and to whom?), and costs of initial purchase, maintenance, and disposal. Specific to cost reduction and disposal best practices, efforts should be made to right-size materials purchases and thereby reduce the need for disposal altogether. As part of any evaluation process for purchase, explore opportunities to further reduce costs and minimize negative impact through the bidding process, vendor comparisons, or leverage cooperative agreements if they are suitable and meet requirements, terms, and conditions.

REPORT

Report program results to internal and external stakeholders and monitor performance for continuous improvement opportunities.

- Manufacturer Name
- Product Name and Number
- MPI Certification Number (if available)
- VOCs in coatings (g/l)
- Percent of products using environmental standards or certifications (list programs)

Resources

[Green Purchasing Best Practices - Architectural Coatings \(2013\)](#) This guide, developed by the Responsible Purchasing Network, provides an overview of the importance of environmentally preferable coatings purchasing, what to do before going out for bid, certifications and standards to specify, minimum bid specifications and strategies, how to evaluate bids and vendors, and how to minimize the environmental impact. It also provides a cost comparison products chart with varying environmental performance attributes.

NASPO Webinar: [Connecticut's Green Paint and Miscellaneous Related Products Contract](#) (2013)

Construction and Renovation Materials Guidance

Looks like we're still uploading content into this section, and so what you see is incomplete. It'll be posted AS-AP.

This section pertains to the purchase of materials associated with ground-up new construction or building renovation. Activities associated with major renovations may include major HVAC improvements, significant building envelope modifications and interior rehabilitation.

This category is unique in terms of how purchasing professionals relate to it and can influence it. Therefore, this guidance lays out the typical building and renovation process and stakeholders, and highlights the opportunities for purchasing professionals to engage and influence key decisions.

Impacts of Construction and Renovation Materials

Extraction Phase

- This includes the energy required for raw materials sourced.

Embodied energy of building products

- Depending on the type of material, from where it is sourced, and the energy intensity required for manufacturing and transportation, building products and components can add significant overall energy impact to a building or space.

Manufacturing Phase

Labor practices during construction and operation	<ul style="list-style-type: none"> - Working hours and health and safety conditions for those workers who support buildings (e.g. construction workers, services providers including cleaning, janitorial, groundskeepers, etc.) may vary significantly depending on the employment or contractual terms. - Construction and building maintenance related jobs are some of the deadliest in the United States, including roofers, construction workers, general maintenance and repairs workers, electricians, grounds maintenance workers, and HVAC mechanics and installers, among others¹.
Embodied energy of building products	<ul style="list-style-type: none"> - This includes the energy required for manufacturing processes and packaging. Depending on the type of material, from where it is sourced, and the energy intensity required for manufacturing building products and components can add significant overall energy impact to a building or space.
Transportation Phase	
Embodied energy of building products	<ul style="list-style-type: none"> - This includes the energy required for transportation of materials, packaging and shipping. Depending on the type of material, from where it is sourced, and the energy intensity required for transportation, building products and components can add significant overall energy impact to a building or space.
Use Phase	
Energy use and greenhouse gas emissions	<ul style="list-style-type: none"> - More than 45 percent of the energy consumed in the United States on an annual basis is attributed toward buildings (including commercial and residential). - According to the U.S. Energy Information Administration (EIA), building sector energy consumption will grow faster than that of industry and transportation between now and 2030.
Water use during building operations	<ul style="list-style-type: none"> - Commercial water used within a building boundary (e.g., schools, hospitals, hotels, retail stores and office buildings) during construction, and throughout the use phase of the building life cycle accounts for 17 percent of the publicly supplied water in the United States. This includes indoor potable water use, landscaping water, cooling tower makeup water.
Local biodiversity, habitat and land use impacts associated with building siting decisions	<ul style="list-style-type: none"> - A United Nations study indicates that of the ecosystem services that have been assessed worldwide, about 60% are currently in a state of degradation or used unsustainably. - Additionally, between 1982 and 2001, about 34 million acres of open space was lost to development within the United States alone. Trends such as these result in deforestation, soil erosion, a drop in water table levels, and species extinction.

Air quality and human health impacts

- According to the U.S. EPA, on average, Americans spend nearly 90 percent of their time indoors, where the concentration of some pollutants is between 2 and 5 times the typical outside conditions.

- Building maintenance products and furnishings emit volatile organic compounds, which, according to the U.S. EPA, can cause eye, nose, and throat irritation, headaches, loss of coordination, and damage to organs and the nervous system.

- According to the U.S. Green Building Council, “prolonged exposure to high concentrations of some VOCs has been linked to a wide range of chronic health problems such as asthma, chronic obstructive pulmonary disease, and cancer.” These emissions pose risks to installers and building occupants alike.

Disposal Phase

Waste generation

- Building construction and operation waste contributes significantly to waste infrastructure and costs associated with collection, storage, handling and transportation of waste.

Case Studies

- USGBC’s [Green Building Information Gateway](#): provides information on certifications, labels, benchmarking programs, disclosures, and project data.
- County of Alameda [Green Building Program](#): This case study provides an overview of the multi-pronged approach Alameda County is taking to reduce the impact of municipal construction activities to ensure they provide healthy and efficient buildings for employees and communities.

Resources

- U.S. Green Building Council [LEED Certification](#): LEED certification provides independent verification of a building or neighborhood’s green features, allowing for the design, construction, operations and maintenance of resource-efficient, high-performing, healthy, cost-effective buildings. LEED is the triple bottom line in action, benefiting people, planet and profit.
- [Living Building Challenge certification](#): this certification program can be applied to a full building, renovation or tenant fit out project. The program sets the highest standard for water and energy conservation and prioritizes healthy and sustainable material specification.
- [WELL Building Standard](#) focuses exclusively on human health and wellness.
- Use [ENERGY STAR Certified Products](#): Using ENERGY STAR products for typical office equipment like lighting, computers, monitors, and copiers can dramatically reduce the tenant’s electricity use and ongoing costs associated with space operation.

Furnishings Guidance

This section pertains to the procurement of furnishings, which includes furniture, flooring, ceilings, walls and composite wood.

Impacts of Furnishings

- **Air quality and human health impacts.** According to the U.S. EPA, on average, Americans spend nearly 90 percent of their time indoors,¹ where the concentration of some pollutants is between 2 and 5 times the typical outside conditions.² Furnishings emit volatile organic compounds, which, [according to the U.S. EPA](#), can cause eye, nose, and throat irritation, headaches, loss of coordination, and damage to organs and the nervous system. [According to the U.S. Green Building Council](#), “prolonged exposure to high concentrations of some VOCs has been linked to a wide range of chronic health problems such as asthma, chronic

obstructive pulmonary disease, and cancer.” Additionally, furnishings may contain hazardous chemicals such as flame retardants and formaldehyde, which pose health risks to installers and building occupants alike.

- **Environmental impacts associated with the production and finishing process.** The impacts of the production and finishing processes vary significantly depending on the type of material. For example, production and finishing of metal components is energy intensive and releases heavy metals into wastewater. Textiles and leathers release volatile organic compounds while being treated with dyes, pigments, fungicides, etc. Wood-based component production includes the use of hazardous substances (e.g., formaldehyde resins, melamine, epoxy, polyurethane resins, ethylene vinyl acetate, etc.).
- **Waste impacts.** [According to the U.S. EPA](#), durable goods—of which furniture and furnishings are included—accounted for nearly 20 percent of the municipal solid waste generation in 2012. [In the European Union](#), furniture waste alone accounts annually for more than 4% of the total municipal solid waste (MSW), of which 80-90% is incinerated or dumped in landfills, whereas only 10% is recycled.

LAUNCH

Follow the steps below to build an understanding of the sustainability impacts of furnishings, how to assemble a team to address this purchasing area, and complete an initial scoping of the initiative to reduce impacts.

Determine the necessary people for this team, in addition to those more generally involved in the Sustainable Purchasing Program team.

Convene the cross-functional team that will develop a plan for improving the sustainability impacts associated with furnishings. Consider representatives from facilities management, architects, engineers, designers, construction managers, procurement, sustainability, and representative occupants.

Review the opportunities for improving sustainability impacts associated with furnishings.

Review the impacts in the table above to understand the key sustainability considerations associated with furnishings. How do these impacts relate to the organization’s existing goals, policies, or directives? Are there opportunities to align efforts? For example, if the organization has occupant wellness or wellbeing goals, using furnishings purchasing to limit VOCs and improve indoor air quality can contribute toward those goals.

Describe the proposed scope of work for the project.

Consider an initial scope of work for the team to address. What is the purpose for bringing the team together; what are the short- and long-term goals of the engagement? Who in the organization is included within the scope? What is the initial area of focus for this initiative (e.g., upcoming purchase of furniture; upcoming office renovation, etc.)?

ANALYZE

Analyze current furnishings use and purchasing.

Collect data on current furnishings purchasing (e.g., one fiscal year) to better understand the purchasing patterns and preferences (if any). Collect the at least the following information for each product type:

Furnishing type (e.g., desk chair, wall board, ceiling tile, etc.)

Manufacturer

Leased or owned by the organization

Cost to purchase/lease

Area product is located

Is the product ergonomically designed (if applicable)?

Is an Environmental Product Declaration available for the product?

Does the product carry a sustainability certification (specify)?

Are there hazardous chemicals present in the product (list)?

Is VOC emissions data available for the product, and was this value considered in the purchase?

Once the data is collected, consider some of the following questions to prepare for setting goals for performance targets and impact reductions.

- Does the organization lease or buy its furniture?
- Are furnishings purchases, and associated impacts considered individually or as a system?
- Are indoor air quality impacts considered when making furnishings purchases?
- Does the organization consider the hazardous chemical constituents in furnishings products before purchasing them?
- Does the organization prefer certifications for any of its furnishings purchasing?
- Does the organization consider ergonomics when purchasing furniture?
- Does the organization consider the life cycle data, aligned with ISO product standards, for its furnishings purchasing?
- How does the organization measure & compare the environmental performance of furnishings products?

Set impact reduction goals.

Using the information from the audit, and engaging stakeholders with appropriate authority, set goals for impact reduction related furnishings purchasing. Consider the specific needs of the target users and to what extent current furnishings are meeting their health, safety, and production needs, and where they can be improved.

There are a variety of options for the types of goals that could be set, depending on the organization's objectives. For example,

- Targeted percentage/total dollars spent of items that meet a sustainability certification
- Threshold/goal for reducing or eliminating hazardous chemicals in furnishings
- Goals around air quality (this is related to certification, may not need separate line item)
- Percentage of relevant furniture purchases evaluated for ergonomic performance, such as BIFMA G1-2013

PLAN

Identify a set of strategies for improving the sustainability impacts of furnishings.

Optimize space design. Space design can allow for a reduction in the amount of furniture and furnishings needed while still meeting the needs of the organization.

For example, using hotel-style workstations or investing in a telework program reduce the overall need for products and materials. Use hoteling best practices as appropriate for the organization. Ensure best practices in office hoteling are applied, utilizing guidance such as those in [Successful Hoteling: GSA's 10 Tips](#) by GSA, [The Metrics of Distributed Work: Financial and Performance Benefits of an Emerging Work Model](#) by Knoll Workplace Research, [Designing New Office Workspaces for 2020](#) by Gartner.

Consider the following questions to explore whether hoteling workstations may be a viable option for the organization, reducing demand for furniture and furnishings:

- What share of the anticipated occupants of the space need to be physically based inside this space on a daily basis (e.g., due to direct access to special lab or other equipment, due to IT security concerns, etc.)?
- What share of anticipated occupants can function productively being physically present in the space just a few days per week or on an "as needed" basis (when a key live meetings are happening)?
- Does the organization have other nearby locations that may have space available to house employees, files, collateral, or other materials?
- Are there opportunities to reconfigure the current space that would allow for improved utilization?
 - Could certain spaces be designated as "hotel" spaces that are not assigned, but could be made available for people who only work from the office at certain times?

- Could files, collateral, or other materials be stored off-site or transitioned to paperless, electronic storage to limit the amount of building space used for storage?
- Could a remote-work program be coordinated to allow for desk sharing for employees in the office on opposite days?
- Is the organization willing to make investments in infrastructure, such as web teleconferencing services with video capabilities and high quality speakers, allowing for more employees to work remotely more often?
- Is the space adaptable to allow changes in configuration or layout needed to facilitate changing use of the space?

Use standing offers and core lists. Standardize the model, make and colors of systems furniture and furnishings (e.g., products can be interoperable and purchased in surplus easily for use elsewhere in the organization).

Spec for durability. There is a lot an organization can do to spec for increased durability of product and extend useful life. For example, when specifying systems furniture, consider the way components are joined, the way edges are finished, ensure units are “non-handed” (i.e., flexible to be used by both left- and right-handed users) so they can be installed and moved to a variety of locations. Attributes like multilevel adjustability allows furniture to be ergonomically fit a number of body types and sizes, increasing the likelihood that the furniture will meet the health and safety needs of a variety of different users.

Reuse existing materials. Whenever possible, consider reusing existing furnishings to extend their useful life. Before an organization considers furniture reuse in particular, it must consider the health and safety impacts of the existing furniture. If an organization determines that reusing existing furniture is appropriate, then it should ensure that the furniture is certified under BIFMA Level (as described in the next section). Reused furniture can meet the requirements of the standard, which will help to ensure that advances in furniture performance and ergonomics—impacting the user’s health, safety, and productivity—have been optimized.

Purchase furnishings certified to have reduced impacts. When purchasing furniture and furnishings, consider not only the standard or certification to which a product complies, but also the testing methodology used. According to the U.S. Green Building Council, “air concentration measurements from chamber testing are a much better predictor of emissions over time than VOC content limits.” The U.S. Green Building Council regularly updates [a list of standards and certifications](#) that address VOC emissions, and meet appropriate testing methods floor flooring, composite wood, ceilings, walls, thermal and acoustic insulation, and furniture. A sample list of approved programs is provided below:

Product Type	Standard/Certification	Must be Tested to the Following
Flooring	FloorScore (hard surface), or NSF 332 (resilient), or SCS Indoor Advantage Gold (2/1/10), or UL Greenguard Gold (UL 2818; 3/14/2014 and UL 2821; 3/14/2014) or, Green Label Plus Process and Procedures Manual 11/10/2015	California Department of Public Health Standard Method v1.1
Composite Wood	California Air Resources Board (CARB) Ultra Low-Emitting Formaldehyde (ULEF), or CARB Exempt (See list of mills)	N/A

Product Type	Standard/Certification	Must be Tested to the Following
Ceilings, Walls, Thermal and Acoustic Insulation	SCS Indoor Advantage Gold (2/1/10), or UL Greenguard Gold (UL 2818; 3/14/2014 and UL 2821; 3/14/2014)	California Department of Public Health Standard Method v1.1
Furniture	BIFMA Level (must achieve criteria 7.6.1 and/or 7.6.2 achieved), or SCS Indoor Advantage Gold (11/17/11 Revision), or UL Gold, or NSF Standard	ANSI/BIFMA M7.1-2011

Prefer manufacturers that use closed loop recycling or product take-back programs. Manufacturers who take responsibility for the end of life of their products help to reduce the solid waste impacts of furnishings purchasing. Discuss the availability of product take-back with potential suppliers, and whenever possible, prefer those that have closed loop recycling infrastructure in place.

Prefer products with hazardous chemicals reduced or eliminated.

Flame retardants are one of the six classes of chemicals of concern that contain many of the harmful substances found in everyday products. The most harmful flame retardant chemicals which may be found in furniture, can show persistence, long-range transport, bio-accumulation, and harm to human health. In response to demand, manufacturers are increasingly supplying flame retardant free furniture options.

Use the Harvard University [Chemical Flame Retardant Free Toolkit and Buyers Guide](#) as part of the organization's flame retardant free approach; the toolkit provides a checklist for project managers and purchasers to follow when purchasing new furniture, and includes a list of vendors that sell products without chemical flame retardants.

Kicking Flame Retardants Out of Office Furniture

The Center for Environmental Health partnered with HDR's Architecture company and Jean Hansen, Senior Professional Associate, Sustainable Interiors Manager, and five other large purchasers to find ways to reduce the use of toxic and untested flame retardant chemicals in office furniture nationwide. Through the development of a six-person "Purchaser Strategy Advisory Group," a strategy for success was developed including the use of purchaser training, a "Purchaser Pledge to Prefer Flame Retardant-Free Furniture," the provision of ready-to-go purchasing tools and technical assistance.

The program 1) raised purchaser and specifier awareness about the health and environmental issues related to flame retardants, the lack of fire safety benefits and the current opportunity to procure healthier furniture, 2) incentivized furniture manufacturers to move the market as quickly and completely as possible to flame retardant-free furniture and to make this the de facto norm, and 3) provided ready-to-use, practical tools to help purchasers and specifiers to make this transition as easy as possible.

[Read the case study>>](#)

Avoiding Chemical Flame Retardants at Harvard University

Harvard University's Sustainability Plan, created with faculty, students, and staff, makes a specific commit-

ment to identifying and reducing chemicals of concern on campus, both to eliminate risks to our vulnerable populations and to enhance the health and well-being of our community. University-wide Green Building Standards include healthy material requirements for the disclosure of the health and environmental impact of products that are used on campus, and additional research is being conducted with Harvard researchers.

In November 2015, Harvard became the first university to sign a national pledge stating a preference for purchasing flame retardant-free furniture. Other signatories to the pledge include Kaiser Permanente, Facebook, Blue Cross Blue Shield Massachusetts, and Autodesk. The Office for Sustainability partnered with Harvard capital project and planning teams, Strategic Procurement, and Environmental Health and Safety to identify and source chemical flame retardant-free furniture across the University, and in accordance with regulations. This effort resulted in the development of the [Chemical Flame Retardant Free Toolkit and Buyers Guide](#), provides a checklist for project managers and purchasers to follow when purchasing new furniture, and includes a list of vendors that sell products without chemical flame retardants.

[Read the case study>>](#)

IMPLEMENT

Execute the plan, provide necessary training, and establish ongoing performance tracking.

Ensure the organization's purchasers are aware of sustainability requirements established and any modified requirements in any updated purchasing policies. Whenever possible, provide resources to assist employees in the safe and ergonomically appropriate use of furniture and furnishings.

REPORT

Report program results to internal and external stakeholders and monitor performance for continuous improvement opportunities.

- Percent of new furnishings purchases carrying a certification or comply with a standard
- VOC levels from air testing
- Percentage of products with available lifecycle assessment
- Percentage of products that are repurposed or remanufactured
- User satisfaction

Specification Language

- District of Columbia [Furniture Specification Guidance](#)
- State of California [Environmental Specifications for Furniture Systems](#)

Case Studies

- HDR - [Kicking Flame Retardants out of Office Furniture.](#)
- Harvard University. [Avoiding Chemical Flame Retardants.](#)

Resources

- Harvard University [Chemical Flame Retardant Free Toolkit and Buyers Guide](#)
- [BIFMA](#). BIFMA is the trade association for business and institutional furniture manufacturers. BIFMA sponsors the development of safety and performance standards, provides industry statistics and forecasts, advocates for regulatory conditions that foster value and innovation, and serves as a forum for member cooperation and collaboration.
- The U.S. Green Building Council regularly updates [a list of standards and certifications](#) that address VOC emissions, and meet appropriate testing methods floor flooring, composite wood, ceilings, walls, thermal and acoustic insulation, and furniture.
- Medici, Andy. *No Desk, No Nameplate, Half the Workspace: Feds Adjust to 'Hoteling.'* Federal Times. January 21, 2012. <http://tinyurl.com/k5qc8on>
- Healthier Hospitals Initiative [List of Furniture and Materials that Meet the HH Healthy Interiors Goal](#)

Space Leasing Guidance

The scope of this category includes leased spaces that are part of the organization's typical operations, in which the organization acts as a building tenant in all or part of a building.

Impacts of Space Leasing and Utilization

Extraction Phase

- This includes the energy required for raw materials sourced.
- Depending on the type of material, from where it is sourced, and the energy intensity required for manufacturing and transportation, building products and components can add significant overall energy impact to a building or space.

Manufacturing Phase

- Working hours and health and safety conditions for those workers who support buildings (e.g. construction workers, services providers including cleaning, janitorial, groundskeepers, etc.) may vary significantly depending on the employment or contractual terms.
- Construction and building maintenance related jobs are some of the deadliest in the United States, including roofers, construction workers, general maintenance and repairs workers, electricians, grounds maintenance workers, and HVAC mechanics and installers, among others¹.
- This includes the energy required for manufacturing processes and packaging. Depending on the type of material, from where it is sourced, and the energy intensity required for manufacturing building products and components can add significant overall energy impact to a building or space.

Transportation Phase

- This includes the energy required for transportation of materials, packaging and shipping. Depending on the type of material, from where it is sourced, and the energy intensity required for transportation, building products and components can add significant overall energy impact to a building or space.

Use Phase

- More than 45 percent of the energy consumed in the United States on an annual basis is attributed toward buildings (including commercial and residential).
- According to the U.S. Energy Information Administration (EIA), building sector energy consumption will grow faster than that of industry and transportation between now and 2030.

Water use during building operations	<ul style="list-style-type: none"> - Commercial water used within a building boundary (e.g., schools, hospitals, hotels, retail stores and office buildings) during construction, and throughout the use phase of the building life cycle accounts for 17 percent of the publicly supplied water in the United States. This includes indoor potable water use, landscaping water, cooling tower makeup water.
Local biodiversity, habitat and land use impacts associated with building siting decisions	<ul style="list-style-type: none"> - A United Nations study indicates that of the ecosystem services that have been assessed worldwide, about 60% are currently in a state of degradation or used unsustainably. - Additionally, between 1982 and 2001, about 34 million acres of open space was lost to development within the United States alone. Trends such as these result in deforestation, soil erosion, a drop in water table levels, and species extinction.
Air quality and human health impacts	<ul style="list-style-type: none"> - According to the U.S. EPA, on average, Americans spend nearly 90 percent of their time indoors, where the concentration of some pollutants is between 2 and 5 times the typical outside conditions. - Building maintenance products and furnishings emit volatile organic compounds, which, according to the U.S. EPA, can cause eye, nose, and throat irritation, headaches, loss of coordination, and damage to organs and the nervous system. - According to the U.S. Green Building Council, “prolonged exposure to high concentrations of some VOCs has been linked to a wide range of chronic health problems such as asthma, chronic obstructive pulmonary disease, and cancer.” These emissions pose risks to installers and building occupants alike.
Disposal Phase	
Waste generation	<ul style="list-style-type: none"> - Building construction and operation waste contributes significantly to waste infrastructure and costs associated with collection, storage, handling and transportation of waste.

The Business Case for Addressing Sustainability in Space Leasing

Real estate leasing is a common practice among organizations, and within the leasing process are many opportunities for advancing an organization’s sustainability agenda, and saving the organization money in the long-term. A growing number of large enterprises have reduced their real estate costs, absenteeism, staff turnover by right-sizing their physical space to the actual needs of the building occupants through approaches such as “distributing work” and “hoteling”^{1,2,3}. Some have also seen a substantial financially quantifiable boost in productivity⁴. Residing an organization’s operation in a green building is an increasingly accessible opportunity. According to the U.S. Green Building Council, “the global green building market grew in 2013 to \$260 billion, including an estimated 20 percent of all new U.S. commercial real estate construction. This trend is expected to intensify in the coming years, both in the US and internationally”⁵. Choosing to reside in a “green building” and operating under a “green lease” provides many potential financial benefits to the property owner and the tenant, alike.

According to EDF, an efficient, high performance building will generally have lower operating costs than

its conventional counterpart building. “Efficient use of energy and water and proper waste management lower the operating costs of the overall building, and the savings can be passed on to the tenants. According to McGraw Hill Construction, the operating costs of green buildings are 13.6% lower than non-green buildings”⁶. The U.S. Green Building Council also cites several benefits for tenants⁷ of green buildings along with data and supporting studies. These benefits include increased productivity and worker satisfaction (including as much as a 16 percent increase in productivity)⁸, better health standards for tenants, and reductions of: communicable respiratory diseases of 9-20%; allergies and asthma of 18-25%; and non-specific health and discomfort effects of 20-50%⁹.

Once a tenant is in a space, further savings can be realized through the use of energy- and water-efficient products and reducing overall waste generation. The U.S. Department of Energy provides resources demonstrating financial savings from the use of more energy-efficient computers, monitors, printers, copiers, light fixtures, refrigerators, and thermostats, demonstrating the potential for thousands of dollars in savings over the life of the lease¹⁰. Committing to use more energy- and water-efficient products and reducing waste while occupying the space can provide the tenant with negotiating power necessary to encourage property owners to make necessary upgrades or provide financial incentives for improved performance.

Review the opportunities for improving sustainability attributes associated with space leasing and utilization.

Review the impacts in the table above to understand the key sustainability considerations associated with space leasing and utilization. How do these impacts relate to the organization’s existing goals, policies, or directives? Are there opportunities to align efforts? For example, does the organization have a stated policy for sustainability performance of buildings within its portfolio? If so, could those criteria be used as goals for leased spaces?

Obtain commitment from internal stakeholders.

Create a policy document that outlines the goals and targets determined in the previous step in order to apply the approach to future leases. Obtain sign off on the policy from whoever at the organization has the authority to commit the organization to this approach.

Additionally, identify the person who will be responsible for implementing the activities, tracking progress toward goals, and reporting on metrics. Ensure that they also sign off on the approach and have the resources necessary for implementation.

Set sustainability goals for leased spaces.

Determine the organization’s sustainability goals that can be part of lease negotiations and assist in selecting the most appropriate space. If the organization already has defined sustainability goals for its owned property, consider how this can be incorporated into goals for leased space.

Consider convening a workshop to determine workplace sustainability goals and strategy, and identify the organization’s drivers, including what aspects of sustainability are most important to the organization. When searching for space, this information will help a lease broker understand the types of spaces that might be best and how leasable spaces could potentially help the organization meet these goals.

Consider the following areas for setting goals and targets:

- Square feet per occupants
- Greenhouse gas reduction
- Building energy efficiency
- Building water efficiency
- Site management practices

- Indoor air quality
- Occupant comfort
- Waste infrastructure
- Proximity to more sustainable commuting options
- Opportunities for tenant improvement activities
- Considerations for local and regional sustainability impacts
- Certifications/eco-labels for spaces over a certain square foot for tenant spaces (e.g., LEED, Energy Star, WaterSense, etc.)

U.S. Federal Government

The U.S. Government released [Implementation Instructions for Executive Order 13693: Planning for Federal Sustainability in the Next Decade](#) that provide sample targets, metrics and milestones for energy efficiency in leased spaces that could be used as a model for organizations setting their own goals. As referenced in the Implementation Instructions:

- **Target:** Beginning in FY 2016, all new lease solicitations over 10,000 Rentable Square Feet (RSF) shall include language that requires the landlord to at least annually report energy and other data sufficient to calculate GHG emissions associated with the occupied space.
- **Metric:** For each fiscal year, percent of new lease solicitations over 10,000 RSF with energy and GHG reporting requirements.
- **Milestone:** Annual reporting of percent of new lease solicitations over 10,000 RSF with energy and GHG reporting requirements.

Determine space requirements.

Once goals and targets for sustainability attributes have been established and the team has completed an audit of its current space, determine the necessary space requirements. Be sure to consider the following questions, among others, as the space requirements are determined:

- How many square feet per occupant does the design require?
- Is this building space designed to house only those occupants (at peak demand) who actually need to be physically in this space versus working remotely?
- Are the space requirements based on best practices in terms of hoteling and other approaches to optimize in terms of the need for space and the use of space (e.g., no offices or cubicles dedicated to individual employees unless their productivity or security concerns dictates such dedicated space)?

Select a leasing broker capable of negotiating sustainability terms into a lease.

Leasing brokers help organizations and potential building tenants lease the space and equipment they need to operate and expand their operations. It is important to select a lease broker who understands and has successfully assisted in implementing the hoteling concept, system-based building energy efficiency, and opportunities for integrating sustainability attributes into the leasing terms, and is familiar with negotiating for them.

IMPLEMENT

If it is determined that at least some leasing space is necessary to meet the current operational needs of the organization, follow the process detailed below.

Consider several potential sites that address sustainability criteria identified by the organization.

Work with the leasing broker to discuss general market conditions, location options, and space availability in both standard and high-performance buildings. Typically, a tenant's negotiating power is impacted by the duration of the lease and the square footage of space needed. The more fully an organization understands its sus-

tainability goals, and can articulate their needs when finding a space, the more likely sustainability terms will effectively be incorporated into the lease.

For each potential site, provide a Request for Proposal that articulates the organization's sustainability program and goals, communicates any baseline requirements for a potential building (e.g., sub-metered tenant spaces, green building certification, etc.), and general questions about the operation of the building. See Resources for a link to a sample RFP.

Compare various sites against consistent criteria.

As the organization visits sites, collect a set of common, detailed data on buildings and potential spaces to use for site comparison, narrowing down options, and deal negotiation. The criteria should assess high performance space feasibility and include the following considerations, among others important to the organization:

Building Characteristics

- Does the building have a credible green certification, such as LEED, ENERGY STAR, or Living Building Challenge?
- Does the property location offer viable public transportation options? Which types? How does the potential site rate in terms of LEED credits for "Location and Transportation" and "Sustainable Sites" in LEED v4 for BD+C (e.g., considering access to public transit and bike facilities, density of land, mixed use of land, green vehicle infrastructure, etc.)?
- Are tenant spaces individually sub-metered for electricity?
- Does or will the landlord monitor and report (in KWH) base building energy use?
- When were the HVAC systems last updated?
- Are there ample size windows to provide enough natural light into the space to allow for reduced overhead artificial lighting?
- Are tenant spaces individually sub-metered for water use?
- Are common area water fixtures (e.g., toilets, faucets, showers) high efficiency and WaterSense labeled?
- What is the waste management infrastructure available in current spaces? Is the infrastructure available, space on loading docks available, etc., for waste, recyclables, and organics management?
- Have the building materials purchased been measured, compared and reported for their full life cycle environmental sustainability performance to document that key products in volume and weight are among the most sustainable materials available?
- Does the building owner provide science-based comparisons of the environmental performance of key products selected (e.g., through Architecture 2030, Sphere-E, etc.)?

Building Management

- Is the landlord or the tenant responsible for financing the tenant fit out?
- If the landlord finances the tenant fit out, what control does the tenant have about product and material selection and selection of contractors?
- What companies service the building? Does the landlord use local and diverse vendors?
- What is the process for finding vendors to service the facility?
- Is the landlord or management company a [Certified B Corp](#) or do they have a [JUST Label](#)? Do they contract with companies that have these designations?
- Does the landlord have an environmental program?

Conduct a feasibility study of top priority spaces to inform the final selection of a space.

Once the organization has narrowed down to a few potential sites, have the architect or engineer perform a feasibility study of the sites. Prior to signing the lease is the best time to evaluate daylight availability, desired layout feasibility, and capability of MEP systems to meet energy and water conservation goals. This will also provide more detailed data about the information collected in the RFPs or during site visits. For example, an older LEED Certified building may not offer any controllability of HVAC systems, due to the type of base build-

ing system. Confirming this information prior to signing the lease is critical for the organization to meet its sustainability goals.

Negotiate with potential landlords and sign off on lease.

The lease broker and tenant can meet with the property owners to discuss various ways to collaborate to improve building performance, negotiate for building improvements and a tenant allowance, and other sustainability related requirements. Use the data collected in the RFP, the site comparison analysis and the feasibility study to negotiate financial terms and flexibility in the lease. Once the negotiations are complete, ensure that all relevant aspects are incorporated into the lease, including the expectations for what sustainability goals will be met through the lease and which party finances them.

Once in a space, operate efficiently.

The lease is a critical component to the landlord playing their part in helping the tenant to meet their sustainability goals, but the activities of the tenant during operation are just as important. Consider the following strategies to operate the tenant space as efficiently as possible.

Use a green building certification program. The following leadership programs are recommended for leased spaces and tenant fit outs.

- [LEED for Commercial Interiors](#) Certification: this certification program is specifically designed for project teams that are working within the bounds of a tenant improvement project and provides best practices for achieving the highest performance through the design and fit out of the tenant space. Note, depending on the size of a leased space, organizations may also consider using the [LEED Existing Buildings: Operations and Maintenance](#)
- [Living Building Challenge certification](#): this certification program can be applied to a full building, renovation or tenant fit out project. The program sets the highest standard for water and energy conservation and prioritizes healthy and sustainable material specification.
Note, in addition to certifying to the comprehensive green building programs recommended, consider also applying the [WELL Building Standard](#), which focuses exclusively on human health and wellness.

Use [ENERGY STAR Certified Products](#): Using ENERGY STAR products for typical office equipment like lighting, computers, monitors, and copiers can dramatically reduce the tenant's electricity use and ongoing costs associated with space operation.

Use building design best practices.

- Install sub-metering equipment to monitor and better manage the energy consumption of individual loads. Recommended sub-metered end uses include: lighting, HVAC equipment, data center equipment, large-scale office equipment (copiers/printers), and workstation plug loads.
- Use localized automatic shut-off to reduce vampire electricity loads after hours.

Use software programs (e.g., SPHERE-E) for product performance comparisons when replacing products to insure their environmental performance contributes to optimizing the building project performance.

Use hoteling best practices as appropriate. Ensure best practices in office hoteling are applied, utilizing guidance such as those in [Successful Hoteling: GSA's 10 Tips](#) by GSA, [The Metrics of Distributed Work: Financial and Performance Benefits of an Emerging Work Model](#) by Knoll Workplace Research, [Designing New Office Workspaces for 2020](#) by Gartner.

REPORT

Report operational performance to internal and external stakeholders; monitor performance for continuous improvement opportunities. The purpose of this exercise is to not only track performance in the leased space against the goals and targets set by the organization, but also to better prepare the organization for the next time it goes through this process.

- Percent of leased spaces (by square footage) operating under a lease with clear sustainability criteria
- Percent of leased spaces (by square footage) operating with dedicated energy submeters for the space
- Percent of leased spaces (by square footage) operating with dedicated water submeters for the space
- Number of employees per square foot
- Average floor space (by square footage) per employee or building occupant
- Electricity use (kWh) tracked monthly and year over year
- Water use (gallons/occupant) tracked monthly and year over year
- Employee health and comfort (collected through employee surveys or questionnaires, or by collecting Sick and Personal Days taken by employees)
- Employee pride and satisfaction (collected through employee surveys or questionnaires, or by collecting Sick and Personal Days taken by employees)

Because this is a process the organization is likely to repeat every few years, it is important for the team to document lessons the organization learned through the process that could be incorporated into future leasing arrangements, or incorporated into existing leases. If the organization was using this particular leasing process as a test case for adopting a policy on incorporating sustainability into their leasing strategy, consider creating a report and hosting a workshop to present findings and lessons learned to internal stakeholders.

Challenges

- **Split incentive between owner and tenants with respect to procurement, control and use of resources.** Depending on the structure of a lease, the building owner, tenant, or both may find disincentives from operating efficiently and making the best use of resources. For example, in net leases, tenants pay for the energy costs, and building owners do not necessarily have an incentive to make building upgrades to HVAC and mechanical systems, and other base building characteristics. In gross leases, the building owner typically pays for the energy expenses, leaving tenants little incentive to operate efficiently. A tenant can best address this by clearly articulating their sustainability goals and taking the time to find properties and building owners that align with these goals.
- **Establishing and maintaining ongoing engagement between owner and tenants.** In order to ensure sustainability goals and targets are met, it is important to establish an engagement and communications strategy, and maintain clear and regular communications between the owner and tenants. Consider building communications expectations and requirements into the lease, including ways in which each party is expected to solicit feedback, and the type of mechanisms for remedying issues related to meeting sustainability goals will be made available.

Sample Solicitation Guidance

- The Green Lease Library provides a list of [Green Lease Leaders](#), a designation created to recognize companies and brokerage teams that successfully implement green lease language into new or existing leases. Consider using this resource to help the organization find a lease broker.
- The California Sustainability Alliance has created a sample [Green Request for Proposals](#), to provide to potential landlords in order to clearly communicate the organization's environmental goals and requests.
- The California Sustainability Alliance has created a [Green Leasing Site Comparison Scorecard](#), to allow for common data collection and comparison among potential sites.
- New York University [Green Lease Guide](#). (See Section II: Green Lease Provisions)
- EnergySmart of Boulder, Colorado developed a sample lease addendum with [Green Lease Provisions](#). The green lease should incorporate the agreed upon terms, including actions expected to be taken by the landlord and the tenant, the scope of such actions, and who is responsible for covering costs.

Resources

Space Optimization and Hotelling

- [Workspace Utilization and Allocation Benchmark](#) by GSA
- ["Estimating Office Space per Worker"](#) by Norm Miller, PhD.
- [Successful Hotelling: GSA's 10 Tips](#) by GSA

- [The Metrics of Distributed Work: Financial and Performance Benefits of an Emerging Work Model](#) by Knoll Workplace Research
- [Designing New Office Workspaces for 2020](#) by Gartner
- [Workplace Mobility](#) by Gensler
- [Innovation Workplaces: Benefits and Best Practices](#) by GSA
- [The Hoteling Experiment: Lessons and Questions](#) by Haworth
- GSA [PBS \(Public Building Service\) Leasing Desk Guide, Chapter 15: Hoteling](#).

Green Building and Product Certification Programs

- [LEED for Commercial Interiors](#) Certification: this certification program is specifically designed for project teams that are working within the bounds of a tenant improvement project and provides best practices for achieving the highest performance through the design and fit out of the tenant space. Note, depending on the size of a leased space, organizations may also consider using the [LEED Existing Buildings: Operations and Maintenance](#)
- [Living Building Challenge certification](#): this certification program can be applied to a full building, renovation or tenant fit out project. The program sets the highest standard for water and energy conservation and prioritizes healthy and sustainable material specification.
- [WELL Building Standard](#) focuses exclusively on human health and wellness.
- Use [ENERGY STAR Certified Products](#): Using ENERGY STAR products for typical office equipment like lighting, computers, monitors, and copiers can dramatically reduce the tenant’s electricity use and ongoing costs associated with space operation.

Electricity Guidance

This guidance pertains to procurement of electricity.

Electricity is an important sustainable purchasing category because it is a product that nearly every business purchases, and it can represent a significant source of a company’s environmental impact.

Impacts of Electricity Use

Electricity procurement has significant environmental, social, and economic impacts. Electricity is commonly purchased and consumed on a shared transmission and distribution grid (“the grid”), through which electricity is delivered from generators to consumers in a region, and on which electricity from all different sources is mixed together to electrify the grid. As a result, strategies have been developed for differentiating and delivering different types of electricity produced on the grid, tracking or allocating specified generation (and associated impacts) to individual grid consumers.

Impacts of Electricity	
Extraction Phase	
Air pollution	- Mining coal and extraction of natural gas generates green house gas emissions.
Land-use Change	- Coal mining and processing also have environmental impacts on land. Surface mining disturbs larger areas than underground mining.
Water Use and Pollution	- The extraction of natural gas and the construction of natural gas power plants can destroy natural habitat for animals and plants.
	- Large quantities of water are frequently needed to remove impurities from coal at the mine. Mountaintop removal for coal extraction can result in stream and ponds being completely filled with solid waste and also leads to erosion, loss of soil productivity, and landslides.
	- Coal mining can also contaminate bodies of water with heavy metals when the water used to clean the coal is discharged back into the environment. This discharge usually requires a permit and is monitored ¹⁰ .

Impacts of Electricity

Price
Instability

- Fossil fuel markets are notoriously unstable and therefore purchasers can have a hard time planning budgets for what is often a very large percentage of their operating budgets

Manufacturing Phase

Air
pollution

- Electric generating capacity in the U.S. is made up of the following fuel sources, with the most carbon intensive sources accounting for well over half the fuel mix: 39% Coal, 27% Natural Gas, 19% Nuclear Electric Power, 13% Renewable Energy, 1% Petroleum⁶.

- The use of coal, natural gas, and petroleum fuel sources exacerbate air pollution.

- When coal is burned, carbon dioxide, sulfur dioxide, nitrogen oxides, and mercury compounds are released.

- The average emission rates in the U.S. from coal-fired generation are: 2,249 lbs/MWh of carbon dioxide, 13 lbs/MWh of sulfur dioxide, and 6 lbs/MWh of nitrogen oxides⁷.

- Cleaning coal generates additional emissions.

- At the power plant, the burning of natural gas produces nitrogen oxides and carbon dioxide, (but in lower quantities than burning coal or oil).

- Methane, a primary component of natural gas and a greenhouse gas with a global warming potential 34 times more potent than carbon dioxide over 100 years⁸, can also be emitted into the air when natural gas is not burned completely.

- Emissions of sulfur dioxide and mercury compounds from burning natural gas are negligible.

- Compared to the average air emissions from coal-fired generation, natural gas produces half as much carbon dioxide, less than a third as much nitrogen oxides, and one percent as much sulfur oxides at the power plant. However, treatment of the natural gas generates additional emissions⁹.

Land-use
Change

- Soil at coal-fired power plant sites can become contaminated with various pollutants from the coal and take a long time to recover, even after the power plant closes down.

Impacts of Electricity

Water Use and Pollution

- In addition, coal-fired power plants use large quantities of water for producing steam and for cooling. When coal-fired power plants remove or warm up water from a lake or river, fish and other aquatic life can be affected, as well as animals and people who depend on these aquatic resources.

- Pollutants build up in the water used in the coal power plant boiler and cooling systems. If the water used in the power plant is discharged to a lake or river, the pollutants in the water can harm fish and plants. Further, if rain falls on coal stored in piles outside the power plant, the water that runs off these piles can flush heavy metals from the coal, such as arsenic and lead, into nearby bodies of water.

- Nuclear power plants use large quantities of water for steam production and for cooling. Some nuclear power plants remove large quantities of water from a lake or river, which could affect fish and other aquatic life. Heavy metals and salts build up in the water used in all power plant systems, including nuclear ones. These water pollutants, as well as the higher temperature of the water discharged from the power plant, can negatively affect water quality and aquatic life.

Transportation Phase

Air pollution

- Transporting coal or natural gas to the power plant generates additional emissions⁴.

- Methane can be emitted as the result of leaks and losses during the transportation of natural gas.

- Moreover, studies suggest that emissions from natural gas leaks in the distribution infrastructure are so large that it makes natural gas equivalent to coal in terms of tCO₂e⁵.

Use Phase

Climate Change from Greenhouse Gas Emissions

- Electricity use is the largest contributor to greenhouse gas emissions in the U.S., accounting for roughly 32 percent of greenhouse gas emissions in 2012³.

Competition

- In the U.S., regulated (i.e., single source) markets dominate most of the Southeast, Northwest and much of the West (excluding California). Here, vertically integrated monopoly utilities cover the entire value chain with oversight from a public regulator. In 24 states, such as California, Texas and most states in the Northeast, deregulated markets have opened up generation for competition from independent power producers, and the utility remains responsible for delivering the electricity to end users. Fifteen of these states and Washington, D.C. have also introduced retail choice, which allows residential and/or industrial consumers to choose their supplier. Globally, some areas, such as the Netherlands, have made renewable energy open for competition first, followed by commodity electricity competition. The EIA maintains a map of the status of electricity restructuring by US state, available at http://www.eia.gov/electricity/policies/restructuring/restructure_elect.html.

Disposal Phase

Impacts of Electricity

Land-use Change

- Soil at coal-fired power plant sites take a long time to recover, even after the power plant closes down.

- Every 18 to 24 months, nuclear power plants must shut down to remove and replace the “spent” uranium fuel.² This spent fuel has released most of its energy as a result of the fission process and has become radioactive waste, and will remain radioactive for thousands of years.

- Currently, due to the lack of a long-term storage facility, the spent fuel is temporarily stored at the nuclear plants at which it is generated, either in steel-lined, concrete vaults filled with water or in above ground steel or steel-reinforced concrete containers with steel inner canisters².

Water Use and Pollution

- Nuclear power plants sometimes discharge small amounts of tritium and other radioactive elements as allowed by their individual wastewater permits.

- Waste generated from uranium mining operations and rainwater runoff can contaminate groundwater and surface water resources with heavy metals and traces of radioactive uranium¹.

The Business Case for Addressing Sustainability in Electricity Purchasing

Addressing sustainability in electricity purchasing provides significant opportunities for the organization to save money, operate more efficiently, and lock in rate pricing.

Conservation activities, such as making building system upgrades and purchasing energy efficient products often pay themselves back in a short number of years, and accumulate further savings thereafter. For example, the U.S. Department of Energy provides resources demonstrating financial savings from the use of more energy-efficient computers, monitors, printers, copiers, light fixtures, refrigerators, and thermostats, showing most simple paybacks occurring immediately, and all occurring within three years.[if !supportFootnotes][i][endif]

Procuring renewable energy can be advantageous to organizations given current market conditions. In general, there is a good environment for renewable energy purchasing due to the availability and accessibility of technology options, and (in the U.S.), favorable tax advantages. In late 2015, the U.S. Congress extended renewable energy Production Tax Credit and Investment Tax Credit for five years, providing certainty on tax credits benefitting wind and solar projects. According to Bloomberg New Energy Finance,[if !supportFootnotes][ii][endif] this provides the potential for 37 gigawatts of new wind and solar capacity, which is a 56-percent boost to the industry over five years. GreenBiz provides an overview and analysis[if !supportFootnotes][iii][endif] of how the tax credits are expected to further drive down the cost of renewable energy, and by 2020, potentially seeing wind and solar providing the cheapest kilowatt-hours available for purchase. Organizations may want to voluntarily begin purchasing renewable energy in the short-term, as it is possible that it may be required through regulation in the future.

Keep in mind, within the United States, the business case for renewable energy purchasing will vary significantly on a state-by-state basis. Globally, this will vary by region. The business case for renewable energy purchasing is highly influenced by geography, because the renewable resource varies from one location to another. Additionally, various regulations, available incentives, and market economics and feedback influence the business case from location to location.

Renewable energy purchasing options can generally be broken down into five categories – Self- or Owned-

Generation, Power Purchase Agreements, Community Renewables/Solar, Utility/Supplier Product Bundled with RECs, and Unbundled Renewable Energy Certificates (RECs) – each with their own pros and cons from a business case perspective.

Self- or Owned Generation (i.e., the purchase of a renewable energy system) can require a high up front cost, and is capital intensive, but generally accrues all savings to the owner over the life of the system and requires that organizations only purchase power beyond what is produced by the system. Additionally, the potential exists to sell excess energy produced back to the utility.

Power Purchase Agreements usually involve low capital cost, allow for the accrual of savings beginning in Year 1, and often continue through the life of the PPA. Additionally, organizations can further save money by monetizing RECs on the local market, though this will affect the renewable energy claims that the organization can make (see below for further discussion). However, this option is not available in all markets.

Community Renewables/Solar can be a good option for organizations that are not positioned well to install on-site, for example, tenants of buildings or shaded roofs. Community renewables can also be a great way to support your local community. Ownership models may vary depending on the product (and possibly state rules): PPAs, leases, setting up a separate organization (LLC, co-op, nonprofit) to deal with the tax structure, etc.

Utility/Supplier Product Bundled with RECs allow organizations to buy renewable energy from their utility, a retailer or supplier, rather than directly from a project or by owning a project themselves. In all cases, the generation is owned by a third party and located offsite. Utility/supplier bundled renewable electricity options are not offered or available everywhere. Participating customers pay a premium on their electric bills to cover the incremental cost of renewable energy.

Each of these purchasing options are explored in further detail throughout the remainder of this section.

[i] Build Out to Save Money. U.S. Department of Energy Better Buildings Alliance.

<http://www4.eere.energy.gov/alliance/sites/default/files/uploaded-files/small-office-tenant-build-out-tips.pdf>

[ii] Bloomberg New Energy Finance. *Impact of Tax Credit Extensions for Wind and Solar*.

<http://about.bnef.com/white-papers/impact-of-tax-credit-extensions-for-wind-and-solar/>

[iii] Nelder, Chris and Silberg, Mark. Congress extends the renewable investment tax credit: What now?

<http://www.greenbiz.com/article/congress-extends-renewable-investment-tax-credit-what-now>

LAUNCH

Follow the steps below to build an understanding of the sustainability impacts of electricity use, how to assemble a team to address this purchasing area, and complete an initial scoping of the project.

Review the opportunities for improving sustainability attributes associated with electricity purchasing.

Review the impacts described previously to understand the key sustainability considerations associated with electricity purchasing. How do these impacts relate to the organization's existing goals, policies, or directives? Are there opportunities to align efforts?

Determine the necessary people for the team.

Convene the cross-functional team that will develop a plan for improving the sustainability impacts associated with electricity purchasing. Keep in mind that there are two main approaches to impact reduction that require different team members: energy conservation strategies and renewable energy purchasing strategies.

For conservation strategies, it is important to engage the facilities team, energy managers, and representatives from finance, sustainability, CSR, procurement, legal, and accounting departments. The facilities team is likely to have strong influence over implementing potential conservation strategies, may in fact be the champions of these efforts, and may often be the final sign off on decisions. Consider including end users who can provide feedback on energy conservation strategies from the perspective of occupying the space to perform their typical functions. Additionally, note that a parallel engagement strategy—often led by human resources or the sustainability department—that helps to monitor and incentivize behavior changes will likely be necessary for the successful implementation of conservation strategies (e.g., posting signs near light switches reminding occupants to turn off the lights).

For renewable energy purchasing strategies, it is important to engage energy managers, and representatives from finance, sustainability, procurement, legal, and accounting departments. Depending on the type of renewable energy (e.g., an on-site system), it may also be necessary to engage the facilities department or anyone who might be involved with maintaining the system. Organizations may also find that engaging a third-party to assist in selecting a renewable energy purchasing option, or maintaining an on-site system, is appropriate. Additionally, sometimes the executive decision makers will be the ones to ultimately sign the contracts. Be sure to figure out the appropriate person who will sign a purchase agreement, program enrollment form, power purchasing contract, etc. and create a path to reach this person.

Describe the proposed scope of work for the project.

Determine a manageable scope for the next phase of the cycle. For example, it may be beneficial to target a few departments or buildings to test various conservation measures before pushing for their wide-scale adoption. If an organization operates in multiple locations, selecting a few pilot test sites can provide valuable lessons for how different strategies might work in varying contexts. A right-sized scope will help the organization to set and achieve more ambitious impact reduction goals, building momentum for future activities and successes.

ANALYZE

Follow the steps in this section to collect spend data and analyze associated impacts, prioritize areas for strategic action, and set goals for impact reduction.

Measure current electricity usage and learn about the sources of your power.

Understanding an organization's current electricity usage is critical to identifying the best ways to reduce its overall impact. Current electricity usage can be quantified by reviewing at least one year's worth of past utility bills, and will give you a total amount of electricity consumed in kilowatt-hours (kWh). In some cases, utilities or electric service providers also provide disclosure about power sources and fuel mixes used to generate delivered electricity. If not, this information can be requested from the utility or electric service provider. The organization can also find out if it is participating in a particular program or purchasing a particular electricity product from its utility or electric service provider that includes a specific mix of generating fuel types. If utility-specific power source information is not available, regional electricity grid information is available from various state and/or federal agencies, for example the Energy Information Administration or U.S. Environmental Protection Agency (<https://www.epa.gov/energy/egrid>). Given this information, the organization can begin to understand more about the magnitude and impacts of its electricity use.

In order for an organization to use this data to act strategically to reduce its impacts through conservation strategies, it will often require more detailed information about the specific electricity uses, and where opportunities for efficiency reside. To obtain more detailed data, consider the following strategies to collect baseline information and benchmark against in the future:

- Install whole building and sub-meters, as possible, to obtain detailed information about the end uses of

energy in the building[i]

- Conduct an ASHRAE Level I, Level II, or Level III energy audit.[ii]

[i] U.S. Department of Energy. Best Practices for Metering 2.0.

<http://www1.eere.energy.gov/femp/pdfs/mbpg.pdf>

[ii] U.S. Department of Energy. *A Guide to Energy Audits*. Sep 2011.

http://www.pnnl.gov/main/publications/external/technical_reports/pnnl-20956.pdf

Track and monitor electricity usage.

Use an energy tracking tool such as ENERGY STAR Portfolio Manager to log baseline and benchmark future electricity usage. These tools allow organizations to track performance over time and provide a variety of metrics on which an organization can report. If the organization does not have the available human resources for tracking and monitoring, a third party can be used for energy management. For example, organizations with multiple entities may use a third-party to pay invoices and house the data for the organization to report on. This allows the organization to see what areas are eligible for demand reduction strategies and also which areas are best eligible for onsite generation.

PLAN

Review the following recommendations to identify a complementary set of strategies for improving performance.

Create a comprehensive energy strategy, including goals for impact reduction.

Develop an overarching energy strategy, including metering and benchmarking the sources and types of energy used, reducing consumption and replacing fossil fuels with clean, renewable sources of electricity. Set goals for electricity demand reduction as well as renewable energy purchasing. The following examples can help organizations with energy planning and goal setting; organizations should research these and other programs to align with the one most suitable to the organization.

- The 3% Solution identifies how US-based corporations can set greenhouse gas (GHG) reduction targets that lead to a collective cost-savings of \$780 Billion USD between 2010 and 2020, while aligning targets with Intergovernmental Panel on Climate Change's (IPCC's) 2-Degree Celsius pathway. These savings are achieved through boosting energy-efficiency measures and transitioning to low-carbon energy sources. <http://www.the3percentsolution.org>
- The Green-e® Marketplace for Business and Products helps companies develop renewable energy procurement plans, understand the array of purchasing options available to them based on their unique circumstances, and reduce risk through the incorporation of certified renewable energy into their procurement models. In addition, Green-e provides claims review and verification as well as tools for publicly communicated commitments. www.green-e.org/marketplace.
- The Green Gigawatt Partnership (GGP) is a collaborative effort to catalyze at least one gigawatt of new renewable energy in higher education by the year 2020. The GGP provides public recognition for colleges and universities sourcing large-scale renewable energy, and helps more campuses do the same by learning how to use long-term, large-scale, power purchase agreements to cut energy costs, reduce price risk, and mitigate greenhouse gas emissions. <http://greengigawatt.org/>
- The Green Power Partnership is a voluntary program that encourages organizations to use renewable energy as a way to reduce the environmental impacts associated with conventional electricity use. The Partnership currently has more than 1,300 Partner organizations voluntarily using billions of kilowatt-hours of renewable energy annually. <http://www3.epa.gov/greenpower>.
- RE100 is a global initiative to engage, support and showcase influential companies committed to using 100% renewable power. RE100 shares the [compelling business case](#) for renewables, while working with others to address barriers to wide-scale adoption and to develop transparent reporting mechanisms for

companies. <https://there100.org>

- The Science Based Targets provides various methods available for organizations to align impact reduction targets with climate science. <http://sciencebasedtargets.org>

Carbon Neutrality: How Philips' Procurement and Sustainability Teams Delivered Results

Philips' approach to sustainability is rooted in decades of activities and experience in finding solutions that consider both the needs of people and the ecological capacity of the planet. Philips invests in improving operations and achieving our sustainability goals with innovative strategies that require a new way of doing business, moving away from the traditional linear economy towards a holistic, circular one.

In 2015, Philips' Procurement and Sustainability groups worked together to develop a strategy to achieve carbon neutrality, a commitment the company made as part of COP21. The strategy included energy efficiency initiatives, deployment of onsite renewable resources, the purchase of renewable energy credits, and the purchase of a long-term power purchase agreement, which will allow the company to achieve carbon-neutral U.S. operations and reduce its global carbon footprint by 8.3%.

Already a leader in sustainability, the Philips PPA has helped the company take a leap forward in reducing the impact of its North American operations. This case study will outline the process Philips undertook to develop its cross-functional strategy to carbon neutrality, along with an analysis of PPA benefits and business case.

See more at: <http://community.sustainablepurchasing.org/case-studies/#philips>

Determine accounting and reporting methods for greenhouse gas emissions.

There are potentially many different resources available to organizations for measuring and verifying, reporting, recognizing, and communicating energy usage and associated impacts.

For guidance on the best practices for reporting greenhouse gas emissions, use guidance such as the Greenhouse Gas Protocol. <http://www.ghgprotocol.org>. The World Resources Institute has also developed Scope 2 Guidance that standardizes how corporations measure GHG emissions from purchased or acquired electricity, steam, heat, and cooling (called "Scope 2 emissions"), as one potential metric for energy use and impacts. This Guidance is available at: http://www.ghgprotocol.org/scope_2_guidance.

Amongst others, the following examples are platforms for organizations to disclose and report their greenhouse gas emissions.

- The Carbon Disclosure Project is a voluntary tool for the corporate sector to report greenhouse gas emissions, and includes the ability for organizations to make renewable energy commitments. <https://www.cdp.net>
- The Campus Carbon Calculator is a sector-based greenhouse gas emissions reporting tool for higher education. <http://campuscarbon.com>
- The Climate Registry is a voluntary greenhouse gas inventory and reporting system and includes government, higher education, corporate, and industrial sector participants. <http://www.theclimateregistry.org/>

Explore energy conservation measures.

Various conservation measures can reduce the organization's overall electricity demand, reduce impacts, and save the organization money. Efficiency and conservation is an ongoing process that needs to be monitored and evaluated for effectiveness, and it does not need to be "complete" before considering renewable energy purchasing strategies. Opportunities for implementing conservation measures are likely to be found in some of

the following places (use the footnotes to access resources on energy conservation strategies):

- [Lighting](#)
- [HVAC](#) (e.g. space heating and cooling, ventilation, water heating).
- [Appliances and electronics\[iii\]](#)
- [Refrigeration](#)

In addition to upgrading to more efficient systems, appliances, electronics, and monitoring and control equipment, behavior change modifications can also result in impact reduction. For example, keeping the lights on less frequently or setting a different heating and cooling temperatures can help the systems operate more efficiently.

See the Implement section for details on financing conservation measures.

Procuring Energy Efficiency through Energy Savings Performance Contracts

An Energy Savings Performance Contract (ESPC) is a partnership between an organization and an energy service company (ESCO), which allow organizations to procure energy savings and facility improvements with no up-front capital costs. According to the [U.S. Department of Energy](#),

ESCOs develop, design, build, and fund projects that save energy, reduce energy costs, and decrease operations and maintenance costs at their customers' facilities. In general, ESCOs act as project developers for a comprehensive range of energy conservation measures and assume the technical and performance risks associated with a project. ESCOs are distinguished from other firms that offer energy-efficiency improvements in that they use the performance-based contracting methodology. When an ESCO implements a project, the company's compensation is directly linked to the actual energy cost savings.

ESPCs can provide an excellent opportunity for organizations to significantly reduce their energy demand from their facilities as part of their overall energy procurement strategy.

The U.S. Federal Government has been a successful user of ESPCs for nearly 20 years to reduce energy and operating costs and make progress toward meeting federal sustainability goals. In an effort to “procure energy efficiency,” President Obama committed the federal government in 2011 to enter into Energy Saving Performance Contracts worth \$2 billion. In 2014, the President extended the goal to \$4 billion thanks to the impressive energy and cost savings generated for federal facilities. A study by [Oak Ridge National Laboratory](#) found that the U.S. government saved nearly double the contract's guaranteed savings, on average.

The Federal Government uses a five-phase process for implementing ESPC projects, run by the Federal Energy Management Program, which includes [Acquisition Planning](#), [ESCO Selection and Preliminary Assessment](#), [Project Development](#), [Implementation and Construction](#), and [Post-Acceptance Performance](#).

The U.S. Department of Energy provides [model documents for an ESPC project](#), which other organizations may find useful in developing their own initiatives. Additionally, the Energy Services Coalition website provides a [case study database](#), [Video intro to ESPC](#), [5 steps to success](#), [RFP for Pre-qualifying ESCOs](#), [Model RFP for Facility Owners](#), and other useful resources for interested organizations.

Explore renewable energy purchasing options.

Electricity markets, products and purchasing options differ from region to region and may depend on the regulatory environment—whether the market is regulated (with one regulated monopoly utility) or deregulated (with many competitive electricity providers)—as well as whether electricity and generation attributes (e.g. in-

struments like renewable energy certificates [RECs]) are able to be purchased separately; what differentiated electricity product options (and specifically renewable energy options) are available from utilities, local competitive providers, and certificate marketers; and the regulatory, legal and cost considerations around direct access or power purchase agreements with specific generating facilities and/or self-generation through on- or off-site owned generation equipment. Even within a single region or market, different electricity customers may have different fuel mix and purchasing options, depending on their size and circumstances.

A number of electricity markets globally now offer cleaner ways of generating power, and afford many consumers the ability to choose what kind of generation to purchase—in other words, to choose the attributes of their power. While no form of electric power generation is completely benign, electricity generated from renewable power resources have [proven to be environmentally preferable](#) to electricity generated from conventional sources such as coal, oil, natural gas, and nuclear. In addition, by using renewable electricity, organizations can realize many benefits, including energy security, price stability, and improved stakeholder relations. There are a variety of renewable energy technologies, including the following:¹

- [Biomass](#)
- Geothermal
- Hydro
- Hydrothermal
- Solar (photovoltaic and thermal)
- Wave/Tidal
- Wind

For a renewable energy technology's eligibility requirements, refer to the applied standard or program (e.g., [Green Power Partnership](#) or [Green-e](#)).

The selection of renewable energy options requires organizations to evaluate purchasing priorities, such as cost, length of commitment, technology, location of generation and impacts, scale, grid impact and marketing claims. Across all options, in the U.S. and Canada, the instrument used to demonstrate ownership and use of renewable electricity is the renewable energy certificate (REC). In Europe, the functional equivalent of a REC is a Guarantee of Origin (GO). Other markets and countries may also use RECs or REC-like attribute instruments. Outside the U.S. and Europe, it may be more difficult to find credible energy attribute certificate instruments that meet quality criteria. See WRI [Scope 2 Guidance](#) for more information.

Given the many options for purchasing renewable energy, it is important that the organization takes the time to consider its goals and resources for purchasing renewable energy to narrow down the options most relevant to their needs. The following questions are examples that can help an organization narrow down its renewable energy purchasing options; consider them, among others, with the cross-functional team:

- How much electricity does the organization consume? What is the annual cost?
- Does the organization have existing goals to reduce the costs of electricity procurement? If so, over what timeframe?
- Are there current organizational goals that would support renewable energy purchasing?
- How much of the electricity usage does the organization want to cover with renewable energy? Depending on the magnitude of electricity usage and the organization's goals for switching to renewable energy, it's possible that more than one option needs to be implemented.
- Is the organization trying to account for electricity usage in one or multiple locations?
- Is it important that there be power generation that is physically at the facility (e.g., solar panels visible on a roof)?
- Is the organization willing to make capital investments on this project?
- What is the organization's rate structure for the purchase of electricity from the utility? Does it have demand charges or just energy charges? Do they get charged different rates depending on the time of day?
- Where is the organization located? Are there ample renewable resources in this area? What types of

renewable energy options are offered in this location? The U.S. Department of Energy [provides a map](#) of renewable energy purchasing options.

- Is the local electricity market regulated or deregulated?
- How much time and human resources are available to dedicate to renewable energy procurement, initially and on a continual basis?
- Are there sufficient time and human resources available to physically maintain onsite generation equipment? Are resources available to pay for maintenance services?
- How long of a purchasing commitment is the organization willing to make (e.g., does the organization want to try something out for a year versus entering into a 20-year Power Purchase Agreement)?

For all of the options discussed below, it is important that the product and purchase meet certain quality assurances, for example through independent certification to ensure accurate, exclusive delivery of renewable energy to prevent double selling and double claiming.

In the United States and Canada, organizations can use the Green-e® Program to obtain certified onsite consumption and direct purchases as well as certified retail bundled renewable electricity and unbundled REC products.² In markets where renewable energy attributes are traded separately and required to make a renewable energy usage claim, such as the U.S., the renewable energy certificate (REC) or equivalent instrument is required (i.e. must be owned by, delivered to, or retired on behalf of the purchaser) in all of the options set out below. In Europe, Guarantees of Origin are the only acceptable evidence for renewable energy claims; they are required to make a renewable energy usage claim. Purchasers should always be transparent about their purchasing strategies, the length or timeframe of their commitments, and the portions of the electricity consumption from various sources of power.

Summary of Renewable Energy Purchasing Options.

Renewable Energy Purchase Option	RECs Required	Generation Asset Ownership	Electricity Included	Location	Capital Investment Required
Self-generation, grid connected	Yes	Buyer	Yes	Onsite or Offsite	Yes
Self-generation, off-grid	No	Buyer	Yes	Onsite	Yes
Physical Power Purchase Agreement	Yes	Third Party	Yes	Onsite or Offsite	No
Virtual Power Purchase Agreement	Yes	Third Party	No*	Offsite	No
Community Renewables/Solar Regulated Utility	Yes	Community/Shared	Yes	Offsite	Potentially
Renewable Energy/Green Tariffs	Yes	Third Party	Yes	Offsite	No

Renewable Energy Purchase Option	RECs Required	Generation Asset Ownership	Electricity Included	Location	Capital Investment Required
Competitive Supplier Renewable Energy/Renewable Energy Product	Yes	Third Party	Yes	Offsite	No
RECs/GOs	Yes	Third Party	No	Offsite	No

** A price for electricity is set by the contract—a contract for differences. But electricity is scheduled and delivered by the local electric service provider.*

These options are described in greater detail below, and where there are distinct sub-options within these options to consider, further explanation and differentiation is provided.

Information about which purchasing options the companies participating in the EPA's Green Power Partnership and purchasers of Green-e certified renewable energy are choosing can be found here:

- See "By the Numbers" for the U.S. EPA's Green Power Partnership: <http://www3.epa.gov/greenpower/newsroom/program-updates16.htm>.
- See the most recent Green-e Verification Report: <http://green-e.org/publications.shtml>.

Self-Generation/Owned Generation

Self-generation is a type of owned generation where the organization consumes the power that it produces. Self-generation options can be grid-connected or off grid. Self-generation options can be differentiated on the basis of grid-connection, location (onsite or offsite), and technology.

Owned Generation means the buyer finances, builds, owns and operates the generation equipment. Owning generation requires a potentially large initial upfront investment, but may in fact result in cost savings over the long term. Siting and development can be difficult and will need to be navigated by the organization. Owning the equipment also means that the organization is responsible for maintenance.

Renewable Energy Purchase Option	Potential Benefits	Considerations
Power generation is self-generated onsite and off-grid.	<ul style="list-style-type: none"> - Only required to purchase electricity for needs beyond what is produced onsite. - Generally accrues all savings to the owner over the life of the system. - Provides the owner complete independence from the utility company and electrical grid. - Predictable cost of energy in the future since not affected by fuel costs. 	<ul style="list-style-type: none"> - May not be able to install a system large or diverse enough to cover all needs at all times. - Cannot take advantage of other options available for grid-connected distributed generation. - May require electricity storage solutions to ensure power is available as-needed and not just when the generation sources are producing power. - Disruptions to the site and other siting considerations (e.g., structural suitability, permitting for property development). - Potential for high up front cost. - Capital intensive.
	<ul style="list-style-type: none"> - Reduces amount of electricity that has to be purchased from the grid but allows usage of the grid for times when the on-site generation is not producing enough power to meet the buyer's load. - Could take advantage of net metering[i] and other programs. - Potential to generate more electricity than consumed, and sell excess back to the grid. - Generally accrues all savings to the owner over the life of the system. - Predictable cost of energy in the future since not affected by fuel costs. 	<ul style="list-style-type: none"> - Disruptions to the site and other siting considerations (e.g., structural suitability, interconnection to grid, permitting for property development, warranties, etc.). - Potential for high up front cost. - Capital intensive.

Renewable Energy Purchase Option	Potential Benefits	Considerations
Power generation is owned, generated offsite and connected to the grid. RECs are retained.	<ul style="list-style-type: none"> • The generation equipment siting can be optimized rather than being limited to a location where the buyer has a facility. • Generally accrues all savings to the owner over the life of the system. 	<ul style="list-style-type: none"> • Potential for high up front cost. • Capital intensive.

Power Purchase Agreements

Power Purchase Agreements (PPAs) are direct agreements with a generation owner for renewable energy, rather than through a retail provider like a utility or electricity service provider. The generation facility can be located onsite or offsite. PPAs can represent significant direct support of a specific project that can be important to the development and continued operation of that project. In addition to delivering renewable attributes, PPAs help the corporate buyer mitigate price volatility risk and lock in a price of electricity, which can save money over the term of the agreement. PPA options are varied and the structure of agreements will vary based on a number of factors, which will need to be negotiated directly. These can be lengthy and complicated transactions to complete, though more and more resources exist for organizations to tap into these purchasing options.

Renewable Energy Purchase Option

Potential Benefits

Other Considerations

Physical Power
Purchase Agreement.
RECs are retained or
arbitrated and then
retained.

- No up-front capital required
- Potential to accrue savings in Year 1 and continue through life of agreement.
- Low capital investment.
- If original RECs retained, can claim to be sourcing bundled renewable electricity from a specific local project.
- If RECs arbitrated and then retained, can take advantage of high REC prices and monetize the RECs in the local market where it would save money for the organization.

If original RECs retained:

- Location could be on- or offsite. But even offsite projects will be local since these involve the scheduling of physical electricity.

- Difficult or potentially prohibited in some regulated markets.

If RECs arbitrated and then retained:

- The organization cannot claim to be using renewable energy from the project with which they have the PPA. The RECs are unbundled. The organization must claim the renewable energy attributes in the RECs it buys.

- Nuances of arrangement may be difficult to explain to stakeholders.

- Project must be in the same interconnected area as site provided energy.

- Some regulated markets may not make this option available.

Renewable Energy Purchase Option	Potential Benefits	Other Considerations
Virtual Power Purchase Agreement* [also known as Financial or Synthetic PPA] RECs are included or arbitrated and then retained.	<ul style="list-style-type: none"> • Can support specific renewable energy projects where it makes the most sense to build them and still receive reduced exposure to price volatility. 	<ul style="list-style-type: none"> • Use of projects that are not located within the interconnected area may present marketing challenges. • Some regulated markets may not make this option available.
	<ul style="list-style-type: none"> • Can provide low cost opportunities for renewables, as projects can be sited to take advantage of economies of scale. 	
	<ul style="list-style-type: none"> • Unbundled RECs from the project are included and allow for a renewable energy usage claim. 	
	<ul style="list-style-type: none"> • The buyer's existing power supply contracts are not disrupted. 	
	<ul style="list-style-type: none"> • Potential to accrue savings in Year 1 and continue through life of agreement. 	
	<ul style="list-style-type: none"> • Low capital investment. 	

*A virtual/financial/synthetic PPA also known as Synthetic PPAs, or Contracts for Differences, are a financial instruments for procurement of renewable energy attributes. The buyer agrees to pay a fixed price for each megawatt-hour (MWh) produced by a project and delivered to the grid. In exchange, the buyer receives the applicable market price for energy for each delivered MWh. In addition, the buyer receives all the RECs associated with the MWhs sold. This arrangement provides the buyer with a hedge against increased electricity prices (as prices increase, the buyer earns more under the VPPA). VPPAs typically require a long term between 12 and 25 years. VPPAs can be employed in any de-regulated market regardless of the location of the buyer's facilities or electrical load since there is no tie between the power produced by the project and the electricity consumed by the buyer.

Community Renewables/Solar

In general, community renewables (usually solar) refers to off-site renewable energy that serves a community or group of purchasers. This may also be referred to as virtual net metering or solar gardens. Ownership models may vary depending on the product (and possibly state rules): PPAs, leases, setting up a separate organization (LLC, co-op, nonprofit) to deal with the tax structure, etc. Sometimes, but not always, customer demand and interest is aggregated prior to the construction of the facility. Because this purchasing option is newer, there is no consensus yet about how "community" is defined. Community solar is often sold on a capacity (kW) basis instead of consumption (kWh). It is important that RECs from the project are retired on behalf of the customers in order for those customers to claim to be using generation from the community renewables project.

Community renewables can be a good option for organizations that are not positioned well to install on-site,

for example, tenants of buildings or shaded roofs. Community renewables can also be a great way to support your local community. There has been some recent interest in highlighting low- and moderate-income (LMI) families in community renewables—either through site locations or as customers. There may be additional considerations for certain purchasing structures. For example, for residential purchases on a capacity basis, the Green-e certification program requires the delivery of a minimum of 100 kWh/month or 25% of the customer's monthly electricity usage averaged over a calendar year.

The Solar Energy Industries Association (SEIA) provides resources for community renewables/solar projects, including U.S. States that have community renewable programs available to organizations.

(<http://www.seia.org/policy/distributed-solar/shared-renewablescommunity-solar>)

Utility/Supplier Product Bundled with RECs

This and the next category on unbundled RECs/GOs are retail purchasing options. Organizations can buy renewable energy from their utility, a retailer or supplier, rather than directly from a project or by owning a project themselves. In all cases, the generation is owned by a third party and located offsite.

Utility/supplier bundled renewable electricity options are not offered or available everywhere. Participating customers pay a premium on their electric bills to cover the incremental cost of renewable energy. These supplier products can be differentiated on the basis of whether it is a regulated or deregulated market—this can be a green pricing/tariff option from a regulated utility, or a competitive renewable energy option in deregulated markets. To date, nearly 850 utilities, including investor-owned, municipal utilities, and cooperatives, offer a green pricing and/or green tariff option.

Finding Green Pricing/Tariff Options

- The U.S. Department of Energy provides an overview of green pricing programs available by state. <http://apps3.eere.energy.gov/greenpower/markets/pricing.shtml?page=0>.
- The U.S. EPA Green Power Partnership's Renewable Energy Locator provides information about the renewable energy options by state. <http://www3.epa.gov/greenpower/pubs/gplocator.htm>.
- The Green-e website provides a searchable tool to find certified renewable energy programs and products by state: http://www.green-e.org/base/re_products.

Green tariff, utility green pricing, and competitive supplier options may be structured differently and may meet different corporate objectives related to price predictability and transparency, tariff simplicity and competitiveness, creation of new supply for the program, and proximity of the renewable energy projects. Purchasing leaders can work with utilities and electricity service providers to create new options that meet their needs, for example in cooperation with the World Wildlife Fund and World Resources Institute's Buyers Principles Partnership (<http://buyersprinciples.org>).

Unbundled RECs/GOs

Purchasing unbundled RECs/GOs means purchasing the renewable generation attributes as a stand-alone product, through a separate set of transactions from the physical electricity, and pairing these attributes with physical electricity delivered by a local electric service provider. Effectively the RECs and electricity are simply bundled by the purchasing organization rather than by a supplier or a generator.

Unbundled RECs are available to all U.S. and Canadian electricity customers. Unbundled RECs may be sourced from anywhere within the regional or national electricity market, creating access to renewable energy generation regardless of the organization's physical location or what resources may be nearby. The organization can express preferences for RECs from different technologies, in different locations, or from facilities with various dates of initial operation; each can impact the price of the REC.

Unbundled RECs/GOs create a national market for renewable energy (international in the case of GOs in the EU), which can aggregate demand, build renewable energy cost-effectively where it makes the most sense, and ultimately scale renewable energy development across a market. Unbundled RECs and GOs can be sold by

utilities and competitive service providers as well as by companies that do not also sell electricity (e.g. REC marketers). Unbundled RECs and GOs represent a pure price premium, need to be purchased repeatedly over time, and offer no cost savings (except perhaps relative to other renewable energy options) or price lock-in to the organization since unbundled RECs are often the lowest upfront and short-term cost renewable energy option for companies.

Renewable Energy Certificates/Guarantees of Origin

Renewable Energy Certificates (RECs), Guarantees of Origin (GOs) and other electricity attribute certificates are tradable **instruments** that represent proof of renewable energy generation and convey the property rights to the environmental, social, and other non-power qualities or “attributes” of one megawatt hour (MWh) of renewable electricity generation. RECs serve as the currency for renewable energy claims in both compliance and voluntary markets in the U.S. and Canada. RECs can either be used to substantiate voluntary renewable electricity purchase and use, or by compliance entities (load serving entities) to meet state compliance requirements for renewable electricity delivery. These instruments represent the exclusive right to claim the environmental attributes associated with renewable electricity generation, such as direct emissions (e.g. a wind farm has zero emissions of CO₂) and can be traded separately from the underlying electricity.

RECs are required for all grid-connected renewable electricity usage claims in the U.S., regardless of whether renewable electricity is self-generated, purchased from an electricity provider or directly from a generation facility. Selling a REC in the U.S., whether “bundled” with physical electricity or “unbundled”, effectively transfers ownership rights over all of the attributes of the associated renewable electricity generation and the right to claim consumption or delivery of that generation to the REC purchaser.

Introduction to the European Renewable Energy Market

GOs serve a similar purpose in the European voluntary market as RECs do in North America: they act as ultimate proof that a MWh has been produced from renewable sources, and must be used for fuel mix disclosure to end users. GOs are the guarantee of where, how and when one megawatt hour (MWh) of renewable electricity was generated.

Each European country has its own energy market rules, and renewable energy support system. However, with the agreement of the 2001 Renewable Directive, the Guarantee of Origin was created; a standardized proof of renewable energy generation was created through the GO.

The Directive mandates that each Member State – and that extends to several non-EU countries too – institutes a national GO certificate system. Fifteen countries have established an efficient national GO certificate system that is linked through the European Energy Certificate System, run by the national issuing bodies, which allows for registry transfers, including across borders. Other countries have more or less advanced stand-alone registry systems in place. In total, GOs exist in over thirty European countries.

Some quality certifications operate on a national or European-wide level, though they mainly offer supplier-specific products; some product support new renewable energy installations, others specific technologies.

Purchasing Carbon Offsets

Where local electricity markets have no renewable energy options and onsite renewable energy is not practical, procurement of certified carbon offsets is recommended.

In the U.S., Canada and Europe, there are established renewable energy markets for which onsite and off-site renewable energy products can be procured. In electricity markets where there are no viable renew-

able energy products available, certified carbon offsets can be procured to mitigate the carbon emissions associated with (Scope 2) emissions of electricity consumption. Some organizations may find it preferable to source offsets from renewable energy projects in order to offset emissions associated with electricity consumption to stimulate renewable energy development on the local grid.

It is important to note that in any setting, regardless of location, the carbon claim from offsets can come from any valid (i.e., certified) source of carbon offsets, which includes projects such as renewable energy but also many other types of projects that reduce or sequester GHGs. For example, offsets can also be from non-energy projects, such as afforestation, reforestation, avoided deforestation, landfill methane capture, forestry, transportation, and others. Any non-renewable electricity reductions are less credible, although they still offset (compensate) the environmental impacts of the consumption.

Retail level certification (e.g. Green-e Climate or equivalent) of carbon offsets provides quality assurances covering the entire chain of custody of the emissions reduction, and requiring the use of robust GHG project standards (e.g. VCS, Gold Standard, CAR, ACR). ICROA, the International Carbon Reduction and Offset Alliance, is an industry association for carbon offset sellers that also upholds best practices for quality assurance in carbon management and offsetting for its members.

See <https://www.icroa.org> and <http://www.green-e.org/offsets> for more information.

How Do Carbon Offsets Differ from RECs and GOs?

Renewable Energy Certificates (RECs), Guarantees of Origin (GOs) and other electricity attribute certificates should not be confused with carbon offsets, as they are different commodities generally used for different purposes, but some interactions may exist in different markets.

RECs and GOs, measured in MWh, are described above as representing the environmental and social attributes of renewable energy generation for the purpose of enabling consumers to claim use or delivery of renewable electricity generation. RECs and GOs are generated from new and existing renewable generation sources on the grid and serve as the currency for renewable energy claims in compliance and voluntary markets. RECs do not represent or convey a carbon offset..

Carbon offsets, on the other hand, represent the GHG emissions reductions, measured in metric tons of carbon dioxide-equivalent (CO₂e), that occur as a result of a project activity, in order for the purchaser to claim a beyond-baseline reduction of GHG emissions. The emissions reductions from that project can be sold to enable the purchaser/owner to claim those GHG reductions as their own. These reductions can then be used to offset any GHG emissions for which the purchaser is responsible, including electricity.

Carbon offsets derived from renewable energy may not be available everywhere, depending on regulations on GHG emissions from the electricity sector (for example, the emissions trading scheme in the E.U. prevents the issuance of offsets from renewable energy). In addition, RECs (or the equivalent instrument) may need to be retired to substantiate the creation of an offset from renewable energy to avoid double counting, depending on the attributes included in the instrument (for example, in the U.S., a REC and a carbon offset cannot both be sold from the same

IMPLEMENT

Once an organization determines which options are most relevant to its energy strategy, it can consider the best financing options and further engage with utilities, select energy service providers, and engage necessary stakeholders to execute its strategy.

Financing Options for Conservation Measures

The table below describes the various financing options available for conservation measures, and the type of budget typically used in each circumstance.

Financing Option	Description	Operating Budget	Capital Budget
Asset Ownership	Purchase of energy efficient systems and components.	X	X
Asset Leasing	Lease of energy efficient systems and components, providing a no up-front cost strategy for the buyer. Organization pays for the use of assets over time.	X	
Energy Service Contracting (ESCOs)	A private agreement with an energy service company, where energy-saving opportunities are identified and evaluated, and a package of improvements to be paid for through savings is then recommended. See the Resources section for links to model documents and additional guidance.	X	

Financing Options for Renewable Energy Purchasing

The table below describes the various financing options available for renewable energy purchasing, and the type of budget typically used in each circumstance.

Financing Option	Description	Operating Budget	Capital Budget
Asset Ownership	Purchase of generating equipment.	X	X
Asset Leasing	Paying rent on a piece of equipment, rather than paying for electricity.	X	
Retail Purchase	Purchase of electricity through green pricing program, unbundled RECs through a supplier, change supplier, or maintain supplier but purchase green energy.	X	
Power Purchase Agreement	Purchase green electricity directly from the generator. Tioga Energy has created a sample on-site solar PPA .	X	

The Business Renewables Center (http://www.rmi.org/business_renewables_center) of the Rocky Mountain Institute offers a broad range of advice (e.g. informational primers on financing, risk allocation, deal structures, internal support design, and accounting, and renewable energy deal identification platform) to corporations that want to engage in PPAs or VPPAs.

The World Business Council for Sustainable Development has published a 2015 report, *Overcome Barriers to Renewable Energy Procurement*, including detail on connecting renewable energy with the organizational strategy, making the business case, calculating total cost of ownership, and strategies for removing internal barriers to success.

http://wbcsdpublications.org/wp-content/uploads/2015/11/Leadership-2015-Overcome_Barriers_to_Renewable_Energy_Procurement.pdf

The ACORE Power Generation & Infrastructure Initiative is focused on advancing the policy, finance, infrastructure and other market elements to increase renewable energy power generation in the U.S. and accelerate the business opportunity for this growing industry. The collaboration is intended to: (1) examine the challenges, opportunities and appropriate strategies related to the expanded use and effective integration of renewable energy in the power generation sector; (2) explore 21st century business models that will allow for increased renewable energy scale; (3) examine emerging market opportunities, such as corporate purchasers;

and importantly, (4) provide background on innovative financing structures and technological advances that will progress renewable deployment. <http://acore.org/programs/member-initiatives/power-generation>

In addition, there are a variety of consultants and brokers that help organizations identify deals, evaluate the opportunities, and negotiate agreements with renewable energy projects.

REPORT

There are a variety of options for managing and reporting data related to energy consumption, renewable energy purchasing, and greenhouse gas emissions. Organizations should select the program(s) that best meets their needs.

- ENERGY STAR Portfolio Manager is an online tool you can use to measure and track energy and water consumption, as well as greenhouse gas emissions.
<https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager>

Amongst others, the following list includes examples of platforms for organizations to disclose and report their greenhouse gas emissions:

- [The Carbon Disclosure Project](#) is a voluntary tool for the corporate sector to report greenhouse gas emissions, and includes the ability for organizations to make renewable energy commitments.
- [The Campus Carbon Calculator](#) is a sector-based greenhouse gas emissions reporting tool for higher education.
- [The Climate Registry](#) is a voluntary greenhouse gas inventory and reporting system and includes government, higher education, corporate, and industrial sector participants.
- For guidance on the best practices for reporting greenhouse gas emissions, use the [World Resources Institute's Greenhouse Gas Protocol](#), amongst others.

Challenges

Distinguishing the impact of electricity purchased

It can be difficult to determine exactly which generators produce the electricity consumed from the grid and which impacts are associated with its generation, as all electricity is identical and indistinguishable once placed on the grid. Around the world, different electricity markets have enabled purchasing from specified sources of electricity and delivery of differentiated electricity products using contractual instruments that represent or convey the “attributes” of generation at a specific generator to grid consumers. Where available, these purchasing options identify the resources used and can be tracked from generator to consumer. The purchase decisions of individual electricity consumers can add up to have an aggregate, demand-side effect on supply of the product (given sufficient demand), in this case, what kind of electricity generation resources get developed and dispatched.

Varying impacts by source

There are several different types of fuel sources, technologies, or resources used for generating electricity, and different types of electricity generation have different impacts. For example, electricity sourced from coal has a very high carbon footprint, whereas nuclear does not. That being said, land use and hazardous waste issues associated with producing nuclear energy are significant. Therefore, it is important to determine—to the best extent possible—what type of electricity an organization purchases. This helps the organization ensure whether the intended impact is realized through different purchasing decisions.

Distribution

Electricity cannot yet be stored in large quantities cost-effectively. Until that changes, electricity generation from different sources must be scheduled to serve electricity load or demand in real time. Which resources get dispatched (and therefore which impacts get created) depends on the operating costs of the resource and grid constraints. For example, renewable resources like wind and solar have very low operating costs, but are intermittent (meaning they do not operate all the time, only when the wind is blowing and the sun is shining). Re-

sources like natural gas can be “ramped” up and down relatively easily, while resources like coal and nuclear cannot cost-effectively be turned off or ramped down and must operate all the time. But which resources get dispatched also depends on contracts that are in place for delivery of electricity from certain generators (i.e. the market for electricity, who purchases what), as well as load—the amount of electricity demand that needs to be satisfied.

Long-term commitments

A long-term commitment to purchasing renewable energy and/or carbon offsets helps to promote the strength and stability of those markets. However, in many cases organizations are not yet willing / unable to engage in contracts over for more than 2-5 years, which leads to exposure to market volatility. On the other hand, many buyers also see the availability of long-term contracts as a benefit, since it is not available in the conventional power markets. Long-term renewable energy contracts can reduce risk associated with price volatility by fixing rates for 15-25 years.

Case Studies

- The [Green Gigawatt Partnership](#) maintains case studies of renewable energy purchases in the higher education sector.
- [Green-e Marketplace for Business and Products](#) maintains case studies of companies purchasing and consuming certified renewable energy.
- [Carbon Neutrality: How Philips’ Procurement and Sustainability Teams Delivered Results](#).
- Green-e Marketplace Case Study: [Sappi Fine Paper North America](#), 2011.
- Stanford University [Renewable Energy Purchasing Strategy](#)
- [Google’s Green PPAs: What, How, and Why](#)
- The [Energy Services Coalition](#) maintains energy service contracting case studies using various energy savings technologies in federal, state, and local government, K-12 and higher education, and the private sector.
- [The adidas Group greenENERGY Fund](#): Key Facts provides an interesting case to fund conservation and renewables
- Turnbull Henry, Elizabeth. “[Did You Know that the Adidas Group has a Sustainability Venture Capital Fund?](#)” *Environmental Defense Fund*, 2013.
- WWF, CERES, and Calvert Investment. [Power Forward – Why the World’s Largest Companies are Investing in Renewable Energy](#). Washington D.C., 2013.
- [Iron Mountain Incorporated Sources Wind Energy through Retail Energy Contract](#).

Resources

Energy Planning and Goal Setting

- The [Science Based Targets](#) provides various methods available for organizations to align impact reduction targets with climate science.
- [The 3% Solution](#) identifies how US-based corporations can set greenhouse gas (GHG) reduction targets that lead to a collective cost-savings of \$780 Billion USD between 2010 and 2020, while aligning targets with Intergovernmental Panel on Climate Change’s (IPCC’s) 2-Degree Celsius pathway.
- For renewable energy, the [Green-e® Marketplace for Business and Products](#) helps companies develop renewable energy procurement plans, understand the array of purchasing options available to them based on their unique circumstances, and reduce risk through the incorporation of certified renewable energy into their procurement models. In addition, Green-e provides claims review and verification as well as tools for publicly communicated commitments.
- The [Green Power Partnership](#) is a voluntary program that encourages organizations to use renewable energy as a way to reduce the environmental impacts associated with conventional electricity use. The Partnership currently has more than 1,300 Partner organizations voluntarily using billions of kilowatt-hours of renewable energy annually.
- The [Green Gigawatt Partnership](#) (GGP) is a collaborative effort to catalyze at least one gigawatt of new

renewable energy in higher education by the year 2020. The GGP provides public recognition for colleges and universities sourcing large-scale renewable energy, and helps more campuses do the same by learning how to use long-term, large-scale, power purchase agreements to cut energy costs, reduce price risk, and mitigate greenhouse gas emissions.

- [RE100](#) is a global initiative to engage, support and showcase influential companies committed to using 100% renewable power. RE100 shares the compelling business case for renewables, while working with others to address barriers to wide-scale adoption and to develop transparent reporting mechanisms for companies.

Energy Use Auditing

- U.S. Department of Energy. [A Guide to Energy Audits](#). Sep 2011.

Energy Service Contracting

- U.S. Department of Energy [Model Documents for Energy Saving Performance Contracts](#)
 - [Energy Service Company Solicitation](#)
 - [Investment Grade Audit and Project Proposal](#)
 - [Energy Savings Performance Contract](#)
 - [Financing Solicitation](#)
- The [Energy Services Coalition](#) provides case studies, and model RFPs, evaluation scorecards and contracts

Conservation Strategies

- [ENERGY STAR Building Upgrade Manual. Chapter 4: Financing](#)
- [Database of State Incentives for Renewables and Efficiency](#)
- [EDF Climate Corps](#)
- [ENERGY STAR for Buildings & Plants](#) (guidance, business case, financing, benchmarking, etc)
- [ENERGY STAR Product Finder](#)

Renewable Energy Purchasing

- U.S. EPA, World Resources Institute, Center for Resource Solutions, and U.S. Department of Energy. [The Guide to Purchasing Renewable Energy](#)
- US Department of Energy [Buying Renewable Energy](#)
- World Wildlife Fund and World Resources Institute's [Buyers Principles Initiative](#)
- Rocky Mountain Institute's [Business Renewables Center](#) (for purchases in deregulated markets):
- The U.S. Department of Energy provides an [overview of green pricing programs available by state](#)
- The U.S. EPA Green Power Partnership's [Renewable Energy Locator](#) provides information about the renewable energy options by state and includes utility green electricity programs and renewable energy certificate (REC) products sold separately from electricity.
- [Mapdwell](#)-a solar mapping tool developed by MIT
- World Business Council for Sustainable Development [Overcome Barriers to Renewable Energy Procurement](#)

Greenhouse Gas Accounting

- World Resources Institute [Scope 2 Guidance](#)

Greenhouse Gas Reporting

- The [Carbon Disclosure Project](#) is a voluntary tool for the corporate sector to report greenhouse gas emissions, and includes the ability for organizations to make renewable energy commitments
- The [Campus Carbon Calculator](#) is a sector-based greenhouse gas emissions reporting tool for higher education
- [The Climate Registry](#) is a voluntary greenhouse gas inventory and reporting system and includes government, higher education, corporate, and industrial sector participants

Food and Beverage Guidance

Food and Beverage for Food Service Operations Guidance

This guidance pertains to procurement of Food and Beverages for Food Services. For purposes of the SPLC, food services pertains to direct and indirect spend on food by commercial and non-commercial purchasers (e.g. universities and colleges, hotels and resorts, government and military, corporate offices, health care facilities, etc.), presumably those who are procuring food for the purpose of providing on-site food services, whether self-operated or outsourced to a food service management company.

The scope of this Guidance does not include food manufacturers or retail, or a guide for selecting a specific food service provider.

Impacts of Food and Beverage Purchasing

The table below describes the common impacts associated with food and beverage purchasing.