



FESHM 5011: SUSTAINABLE ACQUISITION

Revision History

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1.0 INTRODUCTION

Fermilab's Sustainable Acquisition program has been developed to support the Department of Energy and Fermilab's commitment to Executive Order 13514 - Federal Leadership in Environmental, Energy, and Economic Performance. This Executive Order streamlines a number of regulatory requirements including the Solid Waste Disposal Act, the Pollution Prevention Act, the Environmental Protection Act, and the Energy Independence and Security Act. It is listed among Fermilab's Work Smart Set (see [FESHM 1070](#)).

Executive Order 13514 states that Federal facilities must "advance sustainable acquisition to ensure that 95 per cent of new contract actions including task and delivery orders, for products and services...are energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less-toxic alternatives, where such products and services meet agency performance requirements...."

This chapter provides information and resources for employees to specify SA products and services in Fermilab contracts. In addition, the chapter describes how all purchases, even those outside of contracts, shall show preference to SA items if there is a SA item that meets the requirements of the purchaser.

2.0 DEFINITIONS

Alternative Fuels - Denatured ethanol, and other alcohols; mixtures containing 85% or more by volume of denatured ethanol, and other alcohols with gasoline or other fuels; natural gas; liquefied petroleum gas; hydrogen; coal-derived liquid fuels; non-alcohol fuels (such as biodiesel) derived from biological material; 'P-Series' fuels; and electricity:
(<http://www.afdc.energy.gov/afdc/glossary.html>).

Alternative Vehicles - As defined by the Energy Policy Act, any dedicated, flexible-fuel, or dual-fuel vehicle designed to operate on at least one alternative fuel:
(<http://www.afdc.energy.gov/afdc/glossary.html>).

- Flexible-fuel vehicle – A vehicle with a common fuel tank designed to run on varying blends of unleaded gasoline with either ethanol or methanol.
- Dual-fuel vehicle - Vehicle designed to operate on a combination of an alternative fuel and a conventional fuel. This includes vehicles using a mixture of gasoline or diesel and an alternative fuel in one fuel tank, commonly called flexible-fueled vehicles; and vehicles capable of operating either on an alternative fuel (usually compressed natural gas or propane), a conventional fuel, or both, simultaneously using two fuel systems. These are commonly called bi-fuel vehicles.



Biobased - A product determined by the Secretary of Agriculture to be a commercial or industrial product (other than food or feed) that is composed, in whole or in significant part, of biological products or renewable domestic agricultural materials (including plant, animal, and marine materials) or forestry materials (<http://www.ocio.usda.gov/directives/doc/DR5023-002.htm>).

Bristols – Rigid paper products such as: file folders, dyed filing products, index or card stock, pressboard, tags and tickets.

Energy Efficient - Electricity: Refers to equipment or programs that are aimed at reducing the energy used by specific end-use devices and systems, typically without affecting the services provided. Examples include high-efficiency appliances, efficient lighting programs, high-efficiency heating, ventilating and air conditioning (HVAC) systems or control modifications, efficient building design, advanced electric motor drives, and heat recovery systems.
(http://www.eia.doe.gov/glossary/glossary_e.htm)

EPEAT - a tool designed to help purchasers in the public and private sectors evaluate, compare and select electronic products (currently desktop and notebook/laptop computers and monitors) based on their environmental attributes. EPEAT's name is derived from the acronym for the "Electronic Product Environmental Assessment Tool" (<http://www.epeat.net/default.aspx>).

level certification - Business and Industrial Furniture Manufacturer's Association's (BIFMA's) multi-attribute sustainability standard, and third-party certification program for the furniture industry (<http://levelcertified.org/>).

- Products can be awarded a level 1, level 2 or level 3 compliance mark based on the combined score achieved in their sustainability evaluation. level 3 is the highest award a product can achieve.

Non-Ozone Depleting Substances - a compound that does not contribute to stratospheric ozone depletion (<http://www.epa.gov/ozone/defns.html#ozdepl>).

- Ozone Depleting Substances (ODS) – a compound that contributes to stratospheric ozone depletion:
 - ODS include [chlorofluorocarbons \(CFCs\)](#), [hydrochlorofluorocarbons \(HCFCs\)](#), [halons](#), [methyl bromide](#), [carbon tetrachloride](#), [hydrobromofluorocarbons](#), chlorobromomethane, and [methyl chloroform](#). ODS are generally very stable in the troposphere and only degrade under intense [ultraviolet light](#) in the stratosphere. When they break down, they release chlorine or bromine atoms, which then deplete ozone. [A detailed list](#) of [class I](#) and [class II](#) substances with their Ozone Depleting Potential ([ODP](#)), Global Warming Potential ([GWP](#)), and CAS numbers are available.

Recycled Content or Recovered Materials - Waste materials and byproducts that have been recovered or diverted from solid waste, but do not include materials and byproducts generated from, and commonly reused within, an original manufacturing process
(<http://www.epa.gov/epawaste/consERVE/tools/cpg/glossary.htm#content>).



Sustainable Acquisition or Environmentally Preferable Purchasing - products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. Within the DOE that means biobased, energy and water efficient, recycled content, alternative fuels and vehicles, and non-ozone depleting products (<http://www.hss.energy.gov/pp/epp/>).

Water Efficient - saving water resources through the employment of water-saving technologies and activities (http://www.epa.gov/watersense/water_efficiency/index.html).

3.0 RESPONSIBILITIES

3.1 Business Services Section Procurement

Business Services Section Procurement will continue and forge new relationships with vendors that can provide SA products/services to Fermilab, and include SA clauses in contracts as detailed in the [Fermilab Procurement Policies and Procedures Manual](#) and required by the Fermilab Prime Contract. BSS will also report to the ES&H Director on SA Contract Actions as requested.

3.2 Construction Coordinator/Task Manager/Service Coordinator

Construction Coordinator/Task Manager/Service Coordinator oversees or directs the work of a subcontract for conformance with the subcontract documents. In this case, ensure that specified SA items are used to carry out the subcontract.

3.3 Division/Section/Center Heads

Division/Section/Center Heads will ensure the requirements of this chapter are fulfilled, including requiring >95% of all new contracts to include energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non- or less-toxic alternatives, where such products and services meet D/S/C performance requirements, and report SA information to ES&H Director as requested.

3.4 ES&H Director

The ES&H Director will develop and provide SA training, and ensure that SA resources are available via ES&H web pages. Submit purchasing data via DOE's Pollution Prevention Tracking & Reporting System annually.

3.5 Employees

Employees will specify SA in service and product contracts, and complete the Sustainable Acquisition training as required. And as a best management practice, purchase SA products any time a SA product is available unless one of the exceptions listed below applies.



3.6 Environmental Officer

Environmental Officers will provide support to the D/S/C Head and employees in implementing the requirements of this chapter, and will ensure the preference of SA products through the ES&H Review of Purchase Requisitions.

4.0 PROGRAM DESCRIPTION

The SA program is one aspect of Fermilab's Pollution Prevention and Waste Minimization program, and will help Fermilab to reduce its impact on the environment. It is designed to guide employees to purchase products and services that have the least adverse impact to the environment. Primarily SA focuses on products or services that are efficient (in water or energy use), contain sustainable components (either biobased products or alternative fuel use) or contain recycled content. Sustainable Acquisition should be considered for every purchase Fermilab makes including purchase requisitions/orders, ProCard purchases, and subcontracts for goods and services. Scopes of work for goods/services subcontracts should call out the SA products to be used in the completion of the contract.

The REFERENCES section below provides web links to a variety of SA information, including shopping links. The Environmental Protection Agency's Designated Green Products list is a useful spreadsheet that lists the recommended SA content levels for many products, from vehicle products to cleaning products. Before making a purchase, employees should research products with those recommended SA characteristics to determine if it meets the performance requirements. Not meeting performance requirements is a justifiable reason not to purchase SA items, as are unavailability of the product within a reasonable amount of time and cost. However, SA items that are more costly should still be carefully considered before being disregarded.

The exceptions to purchasing SA items are:

- a. The item is not life cycle cost effective or exceeds 110% of the price of the non-sustainable item.
- b. The item will not meet reasonable performance standards.
- c. The item is unavailable in time to meet a critical need.

Below is a guide that describes the steps for purchasing SA items.

Sustainable Acquisition Guidance

1. Determine what product is required.
2. Determine if a SA equivalent exists and meets the need.
 - a. Use the ES&H Section SA website to begin your research <http://esh.fnal.gov/xms/Resources/EPP>, or see REFERENCES section below.
 - b. The SA website lists recommended items in the following product categories (* indicates biobased):



- Bristols (file folders, etc.)
- Engine Lubricating Oil
- Landscaping Timbers
- Park Benches/ Picnic Tables
- Signage
- Traffic Barricades
- *Dishware
- Carpet
- Furniture
- Paint
- Plastic Trash Bags
- Tissue Products
- *Cleaners/ Solvents
- *Lubricants
- Cement/ Concrete
- Industrial Drums
- Paper
- Retread Tires
- Toner Cartridges
- *Construction Materials
- *Miscellaneous

3. Purchase the SA item and ensure that you receive and use the correct product.

5.0 REFERENCES

5.1 RESOURCES

ES&H Section Sustainable Acquisition	http://esh.fnal.gov/xms/Resources/EPP
Business Services Procurement Office	http://bss.fnal.gov/procurement/index.html
EPA Designated Green Products (SA Qualities)	http://www.fedcenter.gov/Documents/index.cfm?id=11767&pge_prg_id=20257

5.2 ENERGY EFFICIENCY

Energy Star	http://www.energystar.gov/
Federal Energy Management Program (FEMP)	http://www1.eere.energy.gov/femp/technologies/procuring_eeproducts.html
Electronic Product Environmental Assessment Tool (EPEAT)	http://www.epeat.net/default.aspx

5.3 SUSTAINABILITY

level Certification	http://levelcertified.org/products/
US Department of Agriculture Biopreferred	http://www.catalog.biopreferred.gov/bioPreferredCatalog/faces/jsp/catalogLanding.jsp?MSESSION=NO



5.4 WATER USE

Water Sense	http://epa.gov/watersense/
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5.5 OZONE DEPLETION

Significant New Alternatives Policy (SNAP)	http://www.epa.gov/ozone/snap/lists/index.html
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5.6 EDUCATION

National Renewable Energy Lab (NREL)	http://www.nrel.gov/learning/
US Department of Energy (DOE)	http://www.hss.energy.gov/pp/epp/
US Environmental Protection Agency (EPA)	http://www.epa.gov/opptintr/epp/index.htm
US EPA Purchasing Guide	http://www.epa.gov/epp/pubs/products/carpets.htm

5.7 SHOPPING

Ability One Go Green	http://www.abilityone.com/OA_HTML/ibeCCtpSctDspRte.jsp?section=10044&sitex=10020:22372:US
General Services Administration (GSA) – GSA Advantage	https://www.gsaadvantage.gov/advgsa/advantage/main/start_page.do
Green Depot	http://www.greendepot.com/greendepot/default.asp?&s_id=0
Green Seal	http://www.greenseal.org/FindGreenSealProductsAndServices.aspx



Office Supplies	http://yosemite1.epa.gov/oppt/eppstand2.nsf/Pages/DisplayAisle.html?Open&Office%20Store&Office%20Equipment&Type=4
Stock Room Catalog	http://www-stock.fnal.gov/stock/
US EPA - Carpet, Meetings & Conferences, Cleaning Products, Copiers	http://cpg.epa.tms.icfi.com/user/cpg_search.cfm?ctlact=OK&product=43&material=All&state='IL'&optchoice=2