

GREEN PURCHASING AND CONTRACTING:

**A guide to reducing environmental impacts
through the procurement process**



**Guidance and Resources for Valley Businesses
and Local Governments**



HEALTHY AIR LIVING™

March 17, 2011

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HEALTHY AIR LIVING™ PARTNERS

Make One Change!

Healthy Air Living is about making air quality a priority in daily decision-making. By making one change in your daily behavior, you can be a part of helping to clean the air in the Valley. Small things like linking your trips, using air-friendly lawn equipment, carpooling and becoming a Healthy Air Living Partner are all ways you can make a difference in our air quality. Visit www.healthyairliving.com for full details about how you can be a part of the solution.

GREEN PURCHASING AND CONTRACTING

One way Valley businesses and government agencies can get involved in air quality improvements is by considering environmental impacts when making purchasing decisions. Green purchasing and contracting can reduce waste, energy consumption, and the overall environmental impact of day to day operations. This document outlines simple steps organizations can take to improve their procurement practices. Furthermore, many of these options have additional benefits, saving money while contributing to improved public health.

Background

Despite major reductions in emissions that have significantly improved air quality, the San Joaquin Valley continues to face difficult challenges in meeting the federal ambient air quality standards. The District's Fast Track Action Plan, adopted to support the *2007 Ozone Plan*, identifies Green Purchasing and Contracting as a potential source of NOx emissions reductions to contribute to the Valley's progress toward health-based air quality standards. NOx is a precursor to ozone and PM2.5, both of which have serious health consequences. Ozone can inflame the respiratory tract and increase the lungs' susceptibility to infections, allergens, and other air pollutants. Adverse health effects from exposure to PM2.5 are especially serious for children, asthma sufferers, and the elderly with illnesses like bronchitis, emphysema, and pneumonia.

What is green purchasing and contracting?

Green purchasing and contracting (GP&C) is the selection of goods, services, and vehicles that have a reduced impact on human health and the environment when compared with other products that serve the same purpose. The guiding principles and information in this document will help organizations acquire products and services that are environmentally responsible.

How can green purchasing and contracting benefit air quality?

Carefully selecting goods and services can significantly reduce an organization's impact on the environment, including air quality. Selecting one product or service over another can potentially reduce directly emitted pollution, energy consumption, vehicles miles traveled, etc. These benefits can reduce ozone precursors and particulates in the San Joaquin Valley. Environmentally-preferable cleaning supplies, paint, and carpets can also improve indoor air quality.

Strategies for implementing green purchasing and contracting

This document highlights three areas where procurement practices can be improved:

- Procurement of goods
- Procurement of services
- Procurement of fleet vehicles

Each section of this document provides the costs and savings, examples of where the measure is being implemented, the air pollution benefits, and other resources for each of these strategies. Provided at the end of the document are a model policy statement, and a model resolution for organizations who wish to take leadership roles. This

document also includes a checklist of GP&C mitigation options and a resolution for Healthy Air Living Partners.



Source: US Green Building Counsel – LEED

How can green purchasing and contracting be implemented?

Organizations can institute purchasing policies that give preference to environmentally responsible products and services. A company-wide purchasing policy ensures that purchasing practices will consider environmental impacts. Procurement policies can be phased in over time and eventually cover a wide range of products and services. Policies can vary widely, and an organization should implement a policy that works best for their operational goals.

Organizations can establish general environmental impact conditions in all contracts, such as specifications that require minimal or reusable packaging, or requiring that bid submissions be presented in an environmentally responsible way. This approach educates vendors about the value you place on environmental improvement, and about steps they can take to green their operations. Purchasing policies can be as prescriptive as your organization chooses.

In some cases, your company will be able to purchase environmentally preferable products at little or no extra cost. In cases where the price of environmentally superior products exceeds that of products currently used, the increased cost can sometimes be offset by more efficient operations. Recycled



paper, for example, sometimes costs more than virgin paper. However, this cost can be offset by double-sided printing, reducing the number of printers in use, and reducing paper use.

In addition to enhancing environmental performance, adopting environmental policies can improve the reputation of an organization and serve as evidence of long-term planning and responsible risk management.

Why is the purchasing stage so important?

It is at this stage that vendors can best be influenced. Purchasing policies are the standard-setting point for nearly every product or service procured by organizations. Policies are thus an effective point to apply actions to improve environmental impact. During the procurement process, suppliers and service providers compete to provide goods, services, and fleet vehicles that meet an organization's specifications. Therefore, it is an important point to request or require that vendors reduce the environmental impact of their products and services.

Are there price and performance issues?

Environmentally preferable products and services can potentially be more expensive, less expensive, or similarly priced in comparison to conventional products. Products and services should have the same "utility" as products currently used. That means that the products should work effectively and not cost significantly more than their traditional replacements. Nothing contained in a green purchasing and contracting policy should require the procurement of goods, fleets, or services that do not perform adequately for their intended use, exclude adequate competition or are not available at a reasonable price in a reasonable amount of time.

How can the District help?

The District's goal is to encourage and assist cities, counties, businesses, and organizations interested in reducing their impact on the environment by changing the way they procure goods and services. The District can:

- Provide guidance and templates to facilitate adoption and implementation of green purchasing and contracting policies and practices
- Support businesses, cities, and counties through the Small Business Assistance program and provide education through our Healthy Air Living outreach and communication program

To advance Green Purchasing and Contracting in the San Joaquin Valley, the District will consider compiling a list of local air-friendly service-providers, and may develop a "Green Seal" certification program for air-friendly products for which there are no other certification programs.

More Resources

Environmental Protection Agency(EPA) – Environmentally Preferable Purchasing
<http://www.epa.gov/opptintr/epp/>

Green California – Environmentally Preferable Purchasing
<http://www.green.ca.gov/EPP/default.htm>

CalRecycle – Environmentally Preferable Purchasing
<http://www.calrecycle.ca.gov/epp/>

City of Fresno’s Strategy for Achieving Sustainability
<http://www.fresno.gov/NR/rdonlyres/39776243-D803-434C-BB5A-F121FB40D269/9537/FresnoGreenPacketFINAL50608.pdf>

PROCUREMENT OF GOODS

Organizations large and small require all kinds of supplies and equipment to operate efficiently. An organization can green their operations by considering the entire inbound supply chain and purchasing products that are both affordable and also have the lower environmental impact throughout the course of their lifecycles.

To prioritize goods with the lowest environmental impact of purchased goods, consider the following:

- Look for products with recycled content. Reused materials and reclaimed materials.
- Eliminate the use of disposable items. Find reusable options to limit the use of products that create the most waste.
- Purchase durable products that can easily be repaired or remanufactured.
- Buy local. Shipping practices are costly both in terms dollars and in environmental impacts.
- Buy energy efficient devices. Energy efficient products often have an extended product life and decreased maintenance costs, and provide a return on investment due to a reduction in energy costs.

Environmentally preferable products generally...

- **Are more energy efficient**
- **Have a higher recycled content**
- **Reduce use of natural resources**
- **Are produced locally**
- **Are less toxic**
- **Are packed in less packaging material**
- **Reduce waste**



Source: <http://www.universityofcalifornia.edu/sustainability/purchasing.html>

Governmental or other widely recognized authorities (e.g. Energy Star, Green Seal, Electronic Product Environmental Assessment Tool, and EPA Eco Purchasing and Recycled Content Guidelines), have established criteria for most product types to help individuals identify the environmental impacts. Organizations can use these criteria when making purchasing decisions. Links to these resources are available below. Additionally, the District may develop a "Green Seal" certification program for air-friendly products for which there are no other certification programs.

Examples of GP&C products:

- Paper products with recycled content
- Timber products from sustainably managed forests
- Energy Star electrical equipment
- Biobased cleaning products
- Water efficient fixtures
- Re-refined motor oil
- Fluorescent lighting
- Occupancy sensors
- Rechargeable batteries
- Reusable cloth bags
- Mercury free thermostats
- Re-treaded tires
- Water based paint

In order to shift demand toward environmentally preferable products, it is also important to promote the supply of such products. Talk with suppliers and request that they carry greener products. Purchasing environmentally preferable products will help form markets, which in turn will promote the development and availability of green products. It is important for organizations to make a strong commitment to prioritizing the purchase of environmentally preferable goods as an integral part of their operations. This is an important step toward wider environmental conservation activities by suppliers.

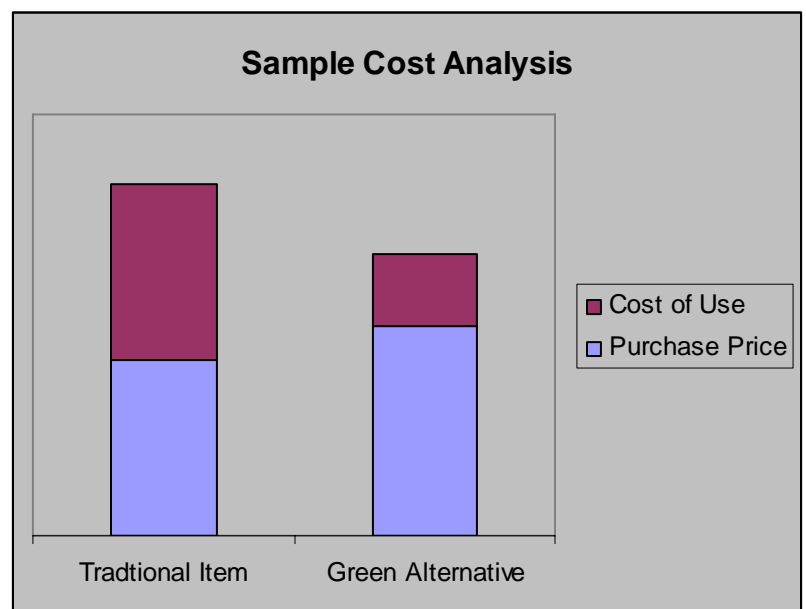
Where the measure has been put into practice

In an effort to save money and reduce waste, Highland Hospital in Oakland, California switched 80 multi-fold paper towel dispensers with roll towel dispensers. They found that people used less paper with the roll towels, decreasing the amount of paper purchased and waste produced. Over the life of the dispensers, the hospital will save \$3,435 and produce 8.7 less tons of waste. For more information visit: <http://www.stopwaste.org/home/index.asp?page=226>

Cal Recycle also maintains a list of existing and sample Green Purchasing policies at <http://www.calrecycle.ca.gov/buyrecycled/Policies/>

Air Pollution Benefits

Green purchasing can have a positive impact on the Valley's air quality. For example, Energy Star or comparable standard devices use 25 to 50 percent less energy than their traditional counterparts. Reduced energy consumption results in fewer emissions from power plants. Vehicle emissions associated with shipping can also be reduced by buying products in bulk or products that are produced locally. Choosing



environmentally preferable cleaning supplies, paint, carpet, and copiers can also reduce indoor air pollutants.

Costs and Savings

Initially, many environmentally preferable products may seem more expensive than standard products. However, a life-cycle assessment may reveal substantial savings. Green products often have substantially lower use costs over their lifetime and lower disposal costs. Energy saving appliances, rechargeable batteries, LED lighting, and bagless vacuum cleaners can save an organization money over time. An organization should tailor its green purchasing policy to its operations and needs. Cost prohibitive alternatives can be left out of the policy.

More Resources

EPA - Database of Environmental Information for Products and Services

<http://yosemite1.epa.gov/oppt/eppstand2.nsf/Pages/VendorLists.html?Open>

Green Seal – Find certified products

<http://www.greenseal.org/findaproduct/index.cfm>

Energy Star – Find certified products

http://www.energystar.gov/index.cfm?c=products.pr_find_es_products

EPEAT – Electronic Product Environmental Assessment Tool

<http://www.epeat.net/>

StopWaste.org – Buying Recycled-Content and Environmentally Preferable Products

<http://www.stopwaste.org/home/index.asp?page=372>

Consumer Reports – Greener Choices, Products for a Greener Planet

<http://www.greenerchoices.org/>

PROCUREMENT OF SERVICES

Organizations regularly contract with service providers to carry out various aspects of their operations. By considering the environmental impact of each candidate during the selection process, organizations can potentially reduce emissions, reduce waste, and save money. Organizations can favor service providers that:

- Use energy efficient equipment
- Provide environmentally preferable products
- Operate lower-emission vehicles
- Reduce or recycle as much waste as possible
- Are Healthy Air Living Partners

Organizations can include environmental impacts of contractors as one of the criteria in the selection process. This will encourage greener service providers to apply, and encourage candidates to consider greening their operations to be more competitive. While environmental impact may not be the most important factor in contractor selection, it can carry enough weight to potentially be the deciding factor when selecting between equally well-qualified service providers.

The District is considering the development of a list of air-friendly service providers in the San Joaquin Valley. Healthy Air Living Partners who are service providers will also be recognized for their commitment and effort to improve the Valley's air quality. For more information, check back later at: <http://www.healthyairliving.com/>

Types of services to consider greening...

- **Janitorial**
- **Landscaping**
- **Construction and repair**
- **Product suppliers**
- **Security**
- **Waste disposal**
- **Lodging**
- **Health care providers**
- **Pest management**
- **Heating and air-conditioning**
- **Electrical providers**

Tips for Hiring Landscapers

- **Request that leaf blowers not be used or used less frequently**
- **Request the use of electric or manual lawn mowers and trimmers for smaller areas**
- **Encourage participation in the District's Clean Green Yard Machine program**

Where the measure has been put into practice

Many organizations are seeing the benefits of hiring contractors that use rubberized asphalt concrete (RAC) instead of traditional materials to pave and resurface their roads. RAC uses rubber from recycled tires, and creates road surfaces that are safer and more durable than conventional asphalt. The use of RAC can also save up to \$50,000 per lane mile over the course of its lifetime. Sacramento County has been using RAC since 1990, recycling 1.5 million tires in the process. For more information, see: <http://www.calrecycle.ca.gov/Tires/GreenRoads/RAC.htm> and <http://www.green.ca.gov/EPP/Vehicles/RAC.htm>

As part of their green purchasing program, Ventura County secured the services of Corporate Express to manage their printer and copier ink cartridge needs. The service involved collecting used cartridges, and remanufacturing them for reuse. They saw significant savings as remanufactured cartridges cost 20-50% less than new cartridges. For more information, visit:

http://portal.countyofventura.org/portal/page/portal/PUBLIC_WORKS/wasteManagement/epp/purchasing_program/products/cartridges

Air Pollution Benefits

Incorporating environmental impacts into the contract selection process can reduce the emission of harmful air pollutants. For example, selecting contractors that maintain green fleets, or operate locally can reduce vehicle emissions. Also, selecting green service providers that operate at your facility like landscapers and janitorial service providers can reduce localized emissions that can impact employees. Limiting contractor use of leaf blowers at work sites reduces exhaust and dust emissions.

Costs & Savings

Environmentally preferable service providers may cost more, less, or the same as conventional contractors in terms of up front costs. However, lifecycle analysis shows that an organization can save money by selecting providers that take steps to be more environmentally friendly such as improving energy efficiency, using less toxic products, and utilizing alternative fuels. Reducing localized environmental impacts can also reduce injuries and improve employee health, resulting in decreased health care costs.

More Resources

California Green Lodging Program

<http://www.calrecycle.ca.gov/epp/GreenLodging/>

Yard Care Guide – SJVUAPCD

<http://valleyair.org/brochures/docs/Yard%20Care%20Brochure.pdf>

EPA – Beneficial Landscaping

<http://www.epa.gov/greenkit/landscap.htm>

No Harm – Environmental Information for Hospitals and Health Care Providers

<http://www.noharm.org/>

PROCUREMENT OF FLEET VEHICLES

With their higher usage rates, fleet vehicles average nearly double the mileage, fuel consumption, and emissions of personal vehicles. As a result, fleets are not only expensive to operate, but are also a large source of air pollution. However, there are easy, cost-effective ways for fleets to reduce their environmental impacts and operating costs at the same time.

To decrease the environmental impact of fleet vehicles, organizations should emphasize:

- **Setting Emission Goals:** Create a baseline of current fleet use (fuel used, miles traveled, emissions, etc.), set goals (reduce fuel usage, miles traveled, GHG emissions, etc), and report progress
- **Improving Vehicle Selection:** Select the right size vehicle with the highest fuel efficiency and prioritize the use of alternative fuels.
- **Improve Vehicle Use:** Educate drivers, improve maintenance, and utilize technologies like GPS to reduce emissions and miles traveled.
- **Consider Lifecycle Costs:** Make vehicle selections based on costs over the full life of the vehicle, including acquisition, fuel consumption, depreciation and resale.

Green Fleets are a win-win. They can improve the air quality in the Valley, and ...

- Improve reputation of organization
- Reduce operational costs
- Reduce greenhouse gas emissions

Where the measure has been put into place

The City of Fresno operates the largest “clean air vehicle” fleet in the San Joaquin Valley. The 514 vehicle clean fleet includes gasoline hybrid, plug-in hybrid, compressed natural gas, liquid propane, and retrofitted vehicles. For more information please visit:

<http://www.fresno.gov/Government/MayorsOffice/OperationCleanAir.htm>



Source: City of Fresno clean air vehicle fleet

Through its alternative energy plan, the City of Santa Ana has replaced a large percentage of their fleet vehicles with vehicles fueled by compressed natural gas (CNG). This change saves the city over \$150,000 annually. In addition, the cleaner fleet also reduces their annual emission of VOCs by 6,258 lbs, NOx by 113 lbs, PM10 by 110 lbs, and CO₂ by 216 tons. For information, see this presentation:

http://uploads.bobitexpos.com/Automotive/files/GFC08-41spkrs_tp-RL.ppt

OK Produce of Fresno, has committed to maintaining green fleet vehicles. In recent years, they have purchased hybrid cars and replaced old tractors with less polluting

models. They have also taken advantage of grant programs to replace their heavy duty truck fleet with newer vehicles.

For more information visit: <http://www.okproduce.com/ok-green/>

Air Pollution Benefits

Selecting more environmentally friendly fleet vehicles is an easy way for organizations to reduce their emissions of harmful air pollutants and greenhouse gases. Improving fuel efficiency, and decreasing fuel consumption and vehicles miles traveled have direct and measurable impacts on the Valley's air quality. As EPA and California Air Resources Board continue to strengthen regulations on mobile sources, fleet managers can get a head start on greening their fleets of service vehicles.

Costs and Savings

Choosing green vehicles over standard models can have a significant financial return when the entire lifecycle of the vehicle is taken into consideration. Environmentally preferable vehicles are generally more expensive to purchase; however, the fuel savings alone are usually enough to make up for the increased sale price. Alternative fuel vehicles like those that are hybrid electric or operated on CNG can also yield additional benefits like reduced greenhouse gas emissions, and improved company reputation. Tax incentives are also available for many green vehicles.

Current Funding

Funding opportunities are available for vehicles that utilize clean technology. Federal funding can come from a variety of agencies. Visit grants.gov to explore funding opportunities from all federal departments. Funding is also available for clean vehicles from state agencies like ARB and the California Energy Commission. Local sources of funding can be found by visiting the website of your local metropolitan planning organization (see resources section). The Air District also has funding opportunities available for green vehicle technology.



Source: <http://www.metaefficient.com/images/plug-in-hybrid-car-phev.jpg>

Funding Resources

California Energy Commission - Alternative and Renewable Fuel & Vehicle Technology Program

<http://www.energy.ca.gov/altfuels/index.html>

Grants.gov – Grant Opportunities

http://www.grants.gov/applicants/find_grant_opportunities.jsp

Metropolitan Planning Organizations

http://www.bts.gov/external_links/government/metropolitan_planning_organizations.html

Council of Fresno County Governments - Fresno

Kern Council of Governments – Bakersfield

Madera County Transportation Commission - Madera

Merced County Association of Governments - Merced

San Joaquin County Council of Governments – Stockton

Stanislaus Association of Governments – Modesto

Tulare County Association of Governments - Visalia

Valley Air District – Grant and Incentive Programs

http://www.valleyair.org/Grant_Programs/GrantPrograms.htm

More Resources

EPA – Green Fleets

<http://www.epa.gov/epp/pubs/products/fleets.htm>

US Department of Energy, Clean Cities

<http://www1.eere.energy.gov/cleancities/>

US Department of Energy, Alternative Fuels and Advanced Vehicle Data Center

<http://www.afdc.energy.gov/afdc/>

US Department of Energy, Compare gas mileage, fuel costs, air pollution ratings, and greenhouse gas emissions for new and used vehicles

<http://www.fueleconomy.gov/>

Donlen Greenkey – Resource Center

<http://www.donlengreenkey.com/resource-center/>



The Healthy Air Living Partners program is an initiative to encourage Valley businesses, government agencies, and organizations to voluntarily commit to actions to reduce the Valley's air pollution problem. The HAL Partners program provides guidance and turn-key resources to help participants implement less-polluting alternatives at their own facilities, many of which will also save money and improve productivity, employee satisfaction, and visibility in the community. It should be noted that Green Purchasing and Contracting is only one component of the comprehensive HAL Partners program, and that participation in HAL Partners - and any portion thereof - is voluntary.

*The **Policy Statement** below is intended for businesses, government, and organizations who desire to commit to an green purchasing and contracting in their longer-term vision. The **Recommended Objectives Checklist** includes measurable performance standards to guide upcoming projects and planning processes.*

*The **Model Resolution** is a voluntary method for cities, counties, and businesses to declare their commitment to air quality and green purchasing and contracting. The resolution is a commitment to taking environmental impact into consideration wherever procuring goods, fleets, and services. The Model Resolution recommends certain procurement practices, but organizations are free to modify the document based on their individual research and needs.*

GREEN PURCHASING AND CONTRACTING POLICY STATEMENT

(name of organization) is committed to lead the community in air quality improvements by implementing environmentally responsible purchasing practices. We commit to implement a Green Purchasing and Contracting strategy which includes:

- Taking environmental impacts into consideration when procuring goods.
- Giving preference to service providers that use lower-emission equipment and reduce the environmental impact of their operations.
- Minimizing the environmental impact from fleet vehicles by reducing vehicles miles traveled, improving fuel economy, or using alternative fuels.

GREEN PURCHASING AND CONTRACTING RECOMMENDED OBJECTIVES CHECKLIST

1. Adopt a green purchasing and contracting policy or resolution.
2. Evaluate existing procurement practices to see where improvements can be made.
3. All new vehicles purchased should be the most efficient and least polluting model that will adequately perform required duties.
4. All new purchases of electric equipment should meet or exceed EnergyStar or Electronic Product Environmental Assessment Tool (EPEAT) standards.