

# *Finding the Best "Green" Value:* **Strategies Balance Cost, Human Health, and Environmental Concerns**

By Scot Case

As more and more governments, colleges and universities, and private-sector companies begin considering the human health and other environmental impacts of their purchasing decisions, the professional purchasing community must balance public safety considerations against more traditional financial concerns. Political leaders and end users want to buy safer products that do not harm human health or the environment, but they also want to continue paying "reasonable" prices. Increasingly, purchasers are asking, "What is reasonable?" Is it possible to balance price and environmental considerations?

When the safer, more environmentally preferable product is just as effective, meets all performance requirements, and is available at no additional cost or at a cost savings, the purchasing decision is easy—buy the safer product. Highly effective, safer cleaning products and paints made without harmful ingredients are available at no additional cost. Wide varieties of building and construction products made from recycled materials or designed to eliminate harmful chemical emissions are widely available at reduced or comparable cost. Remanufactured toner cartridges for printers and fax machines that meet original equipment manufacturer (OEM) performance and warranty standards can be 30 percent less expensive than new cartridges. Fleet managers are finding comparable savings with re-refined motor oils and recycled antifreeze.

Unfortunately, there are many commodity areas for which the demonstrably safer and more environmentally preferable versions have not yet reached price parity. In these situations, the appropriate purchasing decision can be a little murkier. To clarify the murkiness, jurisdictions across the country are using a variety of strategies to integrate human health and other environmental considerations into the purchasing process. These strategies include:

- Modifying specifications and awarding contracts to the lowest bidder.
- Buying products with the lowest life cycle cost.
- Permitting purchasers to apply price preferences for "green" products.
- Adopting best value purchasing practices.

## Modifying Specifications

Some jurisdictions decided that products harmful to human health or the environment no longer meet their purchasing requirements. As a result, they are modifying purchasing specifications to ensure only the safest and environmentally preferable products qualify. Governor Pataki of New York announced in January, for example, that all products used to clean state facilities and schools must be "environmentally preferable (green) products." All federal agencies and all but a few states require that their copy paper purchases contain at least 30 percent post consumer recycled content. Vermont, which is permitted to make purchasing decisions "in the best interest of the state," has modified its purchasing specifications for paper to maximize post consumer recycled content and minimize the adverse environmental impacts of the bleaching process. Many governments and other concerned organizations are modifying specifications to require that products achieve minimum recycled-content thresholds, meet energy- and water-efficiency standards, eliminate hazardous ingredients, or be capable of meeting other environmental standards. Minnesota, for example, requires the trucks used by its waste haulers to meet U.S. Environmental Protection Agency (EPA) vehicle emission standards, which the haulers might have otherwise been able to avoid or delay.

When developing new specifications, purchasers are reviewing the energy-efficiency standards promoted by the Federal government's Energy Star Program ([www.govinfo.bz/4589-251](http://www.govinfo.bz/4589-251)), the EPA recycled-content recommendations ([www.govinfo.bz/4589-252](http://www.govinfo.bz/4589-252)), and the environmental standards developed by Green Seal ([www.govinfo.bz/4589-253](http://www.govinfo.bz/4589-253)). Canada's Environmental Choice Program ([www.govinfo.bz/4589-254](http://www.govinfo.bz/4589-254)) and other internationally recognized environmental labeling programs ([www.govinfo.bz/4589-255](http://www.govinfo.bz/4589-255)) assist in specifications development. Purchasers are also reviewing the information collected in EPA's environmental purchasing specifications and standards database ([www.govinfo.bz/4589-256](http://www.govinfo.bz/4589-256)).

After the environmental requirements are integrated into the purchasing specifications, the purchasing decision remains a straightforward process of issuing a request, ensuring the products meet the specification, and

awarding the contract to the lowest bidder. Some jurisdictions have found, however, that integrating environmental considerations into specifications is not the appropriate strategy for every situation.

### Calculating Life Cycle Costs

In some organizations, end users complain that they have to settle for lower quality products with higher operating costs because purchasers have to buy products with the lowest initial purchase price. Purchasing rules and regulations increasingly recognize that the total cost of a product or service extends beyond the initial purchase price. States like Ohio and communities as diverse as Ventura County, CA; Phoenix, AZ; and Boulder, CO specifically permit purchasers to consider life cycle costs, which makes it easier on both end users and purchasing managers to make better purchasing decisions.

Using life cycle costing models, many organizations have discovered significant cost savings buying energy-efficient computers, copiers, fax machines, and other office equipment. Within the Energy Star Program's Web site ([www.govinfo.biz/4589-257](http://www.govinfo.biz/4589-257)), a variety of calculators are available to compute the savings resulting from energy efficient purchases.

The National Park Service and other local parks services have discovered savings buying highly durable, recycled-content plastic park benches and picnic tables that have significantly lower maintenance costs when compared with more traditional wood tables. It also helps them meet agency missions to protect the environment.

Buying more durable, reusable, upgradeable, or energy-efficient products might be slightly more expensive initially, but the reduced costs of maintaining and operating them more than offsets the initial cost difference. Many such products are also considered more preferable from an environmental perspective. More durable products, for example, reduce the number of products that must be manufactured, thereby

### Life Cycle Cost Example

Organizations permitting life cycle costs analysis are allowed to examine total costs of ownership over a longer time horizon before making purchasing decisions. In the example below, Product C, which is more than twice as expensive as the lowest priced product based on initial cost, is actually significantly less expensive over a three year period. It, therefore, represents the best value to the organization assuming the funds are available to cover the additional capital expense.

	PRODUCT A	PRODUCT B	PRODUCT C
<b>INITIAL COST</b>	\$5,000	\$7,500	\$10,000
<b>OPERATING COSTS FOR 3 YEARS</b>	\$18,000	\$6,000	\$5,000
<b>MAINTENANCE COSTS FOR 3 YEARS</b>	\$8,000	\$6,500	\$3,000
<b>DISPOSAL COSTS</b>	\$1,000	\$750	\$500
<b>TOTAL COSTS</b>	\$32,000	\$20,750	\$18,500

reducing the adverse manufacturing impacts. Energy efficient products reduce the air pollution associated with generating the electricity necessary to operate them.

Products with the lowest life cycle cost do not guarantee that a product is more environmentally preferable. Some products might be less expensive simply because they are less safe or more polluting. Using life cycle cost analysis, however, can demonstrate ways that the safer products are less expensive, which can make it easier for purchasers and end users to justify buying the safer products. Many fleet maintenance facilities, for example, have moved away from solvent-based parts cleaners in favor of the significantly safer and slightly more expensive water-based cleaners. Eliminating the solvent-based cleaners significantly reduces expensive hazardous waste disposal charges and produces a net savings.

### Applying Price Preferences

Dozens of governments permit purchasers to pay between 3 and 15 percent extra for products meeting environmentally preferable criteria. Price preferences permit buyers to discount the price of environ-

mentally preferable products by a predetermined percentage before identifying the lowest bid. An organization buying a new photocopier with a 10 percent price preference, for example, could buy a highly energy-efficient photocopier, made from refurbished and recycled-content parts, that minimizes ozone and dust emissions, and provides a warranty that exceeds other copiers as long as its initial purchase price is not more than 10 percent higher than the lowest priced copier meeting all other product specifications. In this case, the purchasers can select a higher quality and more environmentally preferable copier as a result of the price preference.

Price preferences provide purchasers with guidance about the value legislatures or administration officials place on human health and other environmental considerations. They define how much extra an organization is willing to pay, if necessary, to protect human health and the environment.

Many purchasers are legitimately concerned that price preferences might artificially inflate prices for safer products by advertising the fact that the organization is willing to pay more for them. It is important

to note, however, that purchasers are not required to use price preferences. They are an option available to purchasers that can be used if necessary to buy the safer product. If, after conducting the necessary product research, purchasers determine safer products are available at no additional cost, purchasers can refuse to make price preferences available. If, however, research suggests that a commodity with environmentally preferable attributes might be more expensive than its traditional counterpart, purchasers can notify bidders in the request for quote (RFQ) that they are willing to pay slightly more for the more environmentally preferable alternative.

This strategy still places enormous pressure on all suppliers to keep prices low by increasing competition. Suppliers of traditional products realize they need to keep prices extra low to avoid losing a bid to a bidder that is more responsive to the jurisdiction's human health or environmental concerns.

Suppliers of safer products must ensure their prices are as low as possible or they risk losing a bid to a traditional product supplier with a very low price.

Price preferences appear more popular in jurisdictions that are traditionally required to award contracts to the lowest bidder. Establishing a price preference allows these jurisdictions to pay more for increased environmental performance, if necessary, even when they are normally prohibited from employing life cycle cost or best value purchasing strategies.

### Adopting Best Value Purchasing

Best value purchasing formalizes the informal process most people use when making personal buying decisions. In private life, it is fairly easy to decide to pay a penny or a nickel more for a safer product even if a less expensive one meets other performance needs. Professional purchasing officials, however, must carefully quantify and

justify such potential benefits.

The best value process requires working with the end user to develop a series of environmental criteria, along with traditional factors such as price and performance, that can be used to compare different products. Each criterion is assigned a positive or negative point value. The final purchase is determined by the product with the highest score. As a result, suppliers are competing along multiple dimensions—trying to keep prices low and human health and environmental protections high.

The strategy has already proven quite successful for buying safer cleaning products in Santa Monica, CA, and Seattle, WA, and mercury-free products in Massachusetts. Massachusetts is currently applying the strategy in a search for more environmentally preferable computers.

A Portland, OR, custodial services contract used the best value strategy to include environmental considerations and a preference that workers be fairly compensated. While the winning bid was not the lowest cost option, the resulting contract has produced savings of \$10 million annually, which has been documented in independent audits by both city and county auditors. The overall benefits are so high and pricing so low that more than 70 public agencies in the area are buying off of the contract.

Many of the environmental criteria included in best value evaluations are based on the environmental attributes identified by environmental standard setting organizations and listed in EPA's environmental standards and contracts database. For the EPA's database, visit: ([www.govinfo.bz/4589-256](http://www.govinfo.bz/4589-256)).

Some purchasers are adamantly opposed to best value purchasing fearing that it introduces potentially subjective considerations that could create opportunities for abuse. These purchasers feel that clearly written specifications and a policy of always awarding to the lowest responsive bidder is the only viable approach.

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### Price Preferences

Some of the jurisdictions permitting price preferences for more environmentally preferable products include:

- Chatham County, North Carolina (up to 15%)
- Cincinnati, Ohio (up to 3%)
- Jackson County, Missouri (up to 15%)
- Kalamazoo County, Michigan (up to 10%)
- Kansas City, Missouri (up to 15%)
- San Diego County, California (up to 5%)

Others permit price preferences only for recycled-content products, include:

- Hendersonville, North Carolina (up to 15%)
- Indiana (up to 15%)
- King County, Washington (up to 10% for re-refined oil; up to 15% for paper)
- Minnesota (up to 10%)
- Morro Bay, California (up to 10%)
- New Jersey (up to 15%)
- Oregon (up to 5%)
- Pasquotank County, North Carolina (up to 10%)
- Phoenix, Arizona (up to 10% and up to 15% for paper)
- San Mateo County, California (up to 10%)
- Santa Barbara, California (up to 12% for paper)
- Santa Clarita, California (up to 10%)
- Ventura County, California (up to 10% for paper)
- Vermont (up to 5%)
- Washington (up to 10%)

NOTE: Just because a jurisdiction permits price preferences does not mean purchasers routinely use them. Price preferences are a tool available for use if necessary to buy a safer or more environmentally preferable product. King County, Washington, for example, is successfully buying recycled-content paper without resorting to its price preference option.

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Other purchasers, conscious of these concerns, emphasize that the best value purchasing strategy, when implemented correctly, is completely transparent, which ensures it is fair to taxpayers, end users, and suppliers. The scoring system and point values for each criteria used to evaluate products must be specified in bid documents. This eliminates fears of subjectivity and provides valuable information to suppliers about the kinds of products purchasers are seeking. It also creates pressure to keep prices low by emphasizing the continued importance of low prices.

Another valuable aspect of the best value purchasing process is that it provides an easy way for the purchasing community to share its desire for safer, less polluting products. By placing incentives for safer products in the bid evaluation

process, it signals the increased importance purchasers are placing on safety. As these signals become more prevalent, manufacturers will respond by providing better products. This societal benefit is less likely to occur if purchasers rely only on “lowest-common denominator” specifications that describe what buyers will accept rather than on more flexible best value evaluations that describe what buyers want—safer, effective, and affordable products.

Best value purchasing does not make sense for every purchase. If end users know exactly what they want and there is sufficient competition for products meeting the criteria, develop the appropriate specification and accept the lowest bidder. If, however, there is any uncertainty about which products, if any, are capable of meeting all of the desired environmental criteria, the best value approach might be the better option when purchasing policies permit it.

## The Final Assessment

Some members of the purchasing community continue to ignore the environmental purchasing trend. They believe that their only job is to locate the lowest priced item or to buy what end users seek, but purchasing today is about more than seeking the lowest price. If that were the only criteria, purchasing departments could be easily automated and outsourced.

Modern purchasing is about buying the most appropriate products and services at the most affordable prices. Increasingly, it also means seeking products that are less harmful to human health and the broader environment. The purchasing strategies described above demonstrate how purchasers can buy safer products even under the most stringent purchasing requirements. While some purchasing officials are working with the appropriate rule making bodies to expand their options for buying safer products, many others are using currently available tools to make a difference today.

These questions about balancing price and safety are not new. Few purchasers working today remember the debates about whether automotive purchases should be made based solely on cost or whether they should also require seat belts and air bags to protect the drivers or catalytic converters to reduce pollution and protect the environment. Few purchasers in the future will remember when protecting human health and the surrounding environment was not a routine part of the process. □



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## Best Value Example

While best value can be implemented with a variety of methodologies, the following example is a fairly common, although simplified, approach. Three bids met all of the required specifications and are being evaluated using a best value strategy. Each of the best value criteria is listed in the left column along with their corresponding weights (60% for price, 25% for product performance, and 15% for environmental considerations) just as they were originally detailed in the request for bid (RFB). Based on the resulting scores, Product B would be declared the winning bid because it accumulated the highest point total.

	PRODUCT A	PRODUCT B	PRODUCT C
<b>PRICE</b> (60 possible points—lowest price gets full value of possible points)	\$1,000 - 60 points (Lowest price gets perfect score of 60)	\$1,050 - 57 points (5% more expensive than lowest priced product so gets 5% fewer points)	\$1,100 - 54 points (10% more expensive than lowest priced products so gets 10% fewer points)
<b>PERFORMANCE</b> (25 possible points based on criteria specified in bid request)	20 points	22 points	24 points
<b>ENVIRONMENTAL</b> (15 possible points based on criteria specified in bid request)	11 points	15 points	13 points
<b>TOTAL</b> (Out of a possible 100 points)	91 points	<b>94 points</b>	91 points