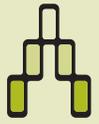


THE HIGH PERFORMANCE PORTFOLIO: PURCHASING GUIDELINES



BETTERBRICKS
Bottom line thinking on energy.

SUMMARY:

68% of electricity in office buildings is used to power frequently purchased items such as office appliances and lighting.¹ Furthermore, capital equipment decisions are too often made solely on the basis of initial cost, to the detriment of long-term energy performance.

Managing and vetting the quality, type, and performance levels of equipment placed in your buildings can have a large impact on the overall energy efficiency of your portfolio. Identify who in your organization (and outside it) makes purchasing decisions for your properties, and what criteria are utilized to finalize decisions. Then, establish procedures, standards, and recommendations to ensure that the most efficient equipment that is practical is obtained.

IN DEPTH:

Who decides what products and equipment make their way into your properties? On what criteria are these decisions based? If the operational characteristics of equipment are not considered at the outset, simple purchasing decisions may erode energy efficiency. For example, gains in efficiency can be lost if a lighting contractor installs inefficient (though perhaps less expensive) equipment. Inefficient appliances and office equipment will quietly eat away at energy savings achieved by high performing HVAC and mechanical systems. Even the best-maintained and operated HVAC systems will eventually see a drop in efficiency and require replacement after a number of years. Essentially, every piece of equipment the property manager, the engineer, or a tenant buys and brings into your building has a potential impact on your energy performance.

To address this, implement purchasing policies or guidelines in line with your energy management goals, ensuring that each purchase accelerates progress. When creating this, identify all the different leverage points in the purchasing process, and consider all potential purchases that can affect energy efficiency.

¹ http://www.eia.doe.gov/emeu/consumptionbriefs/cbeecs/pbawebbsite/office/office_howuseelec.htm

Essentially, every piece of equipment the property manager, the engineer, or a tenant buys and places in your building has a potential impact on your energy performance.





It may be necessary to reframe expectations, rewrite procedures, and rethink professional development metrics and goals. Ultimately, uniform guidelines and procedures across the organization will provide economies of scale and a consistent, unified approach, preventing maverick purchases that impede performance.

IDENTIFY LEVERAGE POINTS.

Are purchasing decisions centralized at your corporate office? Are they made by a property manager or engineer at the building level? Does this depend on whether the funds come from an operating budget or a capital budget? Are the decision-makers employees of your organization, or third-party managers?

The answers to these questions depend not only on your organization's role as an owner and/or manager, but also on the specific purchasing decision in question. For example, large capital expenditures typically require owner approval and a budgeting process, while less costly, day-to-day purchases often come out of property managers' operational budgets. Analyze all the leverage points that apply to the various purchasing decisions made for your properties. Depending on your level of control over each of these points, develop purchasing standards, guidelines, and/or recommendations.

- **Centralized purchasing department:** For purchases made or approved centrally, set firm standards for energy efficiency. For example, establish negotiated agreements to buy ENERGY STAR qualified light bulbs in bulk, and ensure that all building operators replace lights in their properties by drawing from this central pool of resources. You may have a department responsible for all IT- or telecom-related expenditures; set clear minimum energy efficiency standards for those purchases.
- **Financial analysts:** For purchase requests coming from building operators that must be approved at a corporate or ownership level, establish procedures for all financial analysts or asset managers to consider total cost of ownership and long term benefits in their decision-making. If your organization is primarily an owner, this may be your greatest opportunity to influence purchasing.
- **Building operators:** If your organization is primarily a manager, or if you own and manage your properties, set guidelines for routine purchasing decisions made by building operators, such as motors or lamps. Demonstrate to ownership that you are assuming higher first costs to achieve lower operating costs and maintain their building's energy performance. Also, ensure that building operators' requests for capital funds include careful analyses of total cost of ownership, related benefits, and energy efficiency.

- **Third-party service providers:** If the building operators making purchasing decisions are employees of a third-party firm, you can use the power of your ownership dollar to recommend energy-efficient purchases. Create incentives for property management firms to buy energy-efficient products and equipment, even if the firm will incur higher first costs – for example, some owners establish management contracts that offer bonuses for reducing operating expenses. Owners and third-party operators should hold open dialogues on the most effective way to use operating budgets. Additionally, if you hire consultants to manage bids and contracts for projects such as re-roofing or HVAC system upgrades, make them aware of your new standards.
- **Product vendors:** Work closely with your vendors, who are probably used to focusing on lowest first costs. Familiarize them with your efficiency standards and total cost of ownership approach, and reward them when they help you meet your high performance goals. If you sub out the installation and maintenance of certain products, such as vending machines, set guidelines for contractors. For example, instruct them to select only ENERGY STAR qualified vending machines.
- **Tenants:** Tenants bring energy-consuming equipment into your building, namely computers, copiers, and other office equipment. Though you don't have direct control over these purchases, you can arm tenants with information on how their purchases impact energy efficiency, and ultimately their occupancy costs. The better your relationship with your tenants, the more likely they'll be to take your advice and buy equipment that enhances the building's energy performance. You might wish to explore incentives for tenants that adhere to some basic purchasing guidelines such as rent discounts, greater tenant improvement allowances, etc.

Arm tenants with information on how their purchases impact energy efficiency, and ultimately their occupancy costs...

ADOPT CRITERIA AND STANDARDS.

When energy efficiency is added to purchasing practices, the entire concept of what is a good value changes. Traditionally, organizations buy the least expensive equipment available that meets standards. But in your high performance portfolio, it's also important to look at the costs that will be avoided due to potential energy savings, reduced maintenance, and other benefits over the life of the equipment. For all purchasing decisions, shift the focus from the lowest bids to the highest value.

For all the leverage points you identified, consider which standards or recommendations are appropriate or feasible to implement. The following are general considerations for all purchasing

decisions. Be very clear when communicating these considerations to staff and vendors, so that each party understands which hurdles or metrics apply to which purchases.

- **Total cost of ownership (TCO):** By itself, energy efficiency might not justify a purchase – unless TCO is considered. TCO is the cost of owning, operating, maintaining, and eventually disposing of equipment over a given number of years. Make TCO a standard consideration in all purchases, especially those over a set threshold value (e.g., \$500). Require vendors, based on a contractual agreement, to provide TCO information your organization can use to perform a complete analysis.
- **Financial hurdles:** In addition to providing energy-efficiency gains, purchases need to make sense economically. Establish different financial hurdles for different types of purchases. Examples include a Simple Payback of five years or less for short-life items or items purchased out of the operating budget, and an Internal Rate of Return of at least 10% for long-life items or capital expenditures. Be sure to align financial thresholds to broader strategic issues such as holding periods, market dynamics, and specific investment goals for a given set of properties.
- **Documentation:** For all purchases, document the basis of decisions, including TCO information and any initial cost differences. Standard forms should be updated so that the above information is required and certified for each purchase. Possible items to update include financial analysis tools, vendor contracts, and procedural manuals. Also consider requiring that documentation be signed by a senior executive accountable for energy-efficient purchasing.

SAMPLE TCO LANGUAGE FOR VENDOR CONTRACTS

“It shall be the responsibility of the vendor to supply energy efficiency, average equipment life, and maintenance time/material estimates for all price quotes in excess of \$X. Such specifications will be supplied in standard units suitable for comparison with other similar products and of sufficient detail so as to allow mathematical calculation of the total cost of ownership for said vendor items.”

Depending on their nature, cost, and useful lives, different product categories will require special considerations, decision-making processes, and standards. Below are the basic categories of equipment that should be covered in your purchasing guidelines, and some unique considerations for each category. For more detail on specific items, refer to the Useful Links.

- **Office equipment and appliances:** Funds for items such as office equipment break room/ kitchen appliances, and other off-the-shelf products probably come out of operational budgets. Examine the effect that these seemingly small purchases can have on energy consumption. Set performance standards for products your organization purchases, and establish recommended standards for items purchased by other parties such as tenants or third-party managers. Where

available, specify ENERGY STAR qualified products, referring to the ENERGY STAR online specifications library. In general, ENERGY STAR qualified office equipment uses about half as much electricity as standard equipment. Available ENERGY STAR products include exit signs, computers, printers, fax machines, and water coolers. Some organizations develop and refer to a “favorites” list of equipment, based on staff and tenant preferences.

- **Lighting:** Lighting often crosses the boundary between off-the-shelf products and capital investments. For example, replacement light bulbs may be considered an operating expense, and decisions could be based on Simple Payback; a lighting retrofit, however, is likely considered a capital expense and could require Internal Rate of Return and TCO analyses. In either case, set specific criteria for lighting for various applications, such as compact fluorescents, T-8 lamps with electronic ballasts, or LEDs. For large investments in lighting that require life-cycle cost analysis, consider the anticipated reduction in energy expenses, but also factor in reduced maintenance costs due to less frequent bulb change-outs, and the avoided cost of purchasing replacement bulbs since more energy-efficient products tend to have a longer life.

In addition, formalize procedures to explore the availability of utility incentives for any lighting retrofit or capital equipment project. Local utilities will often have aggressive financial packages to help offset project costs - and investigating these should be a mandatory step in any analysis.

- **Capital equipment:** Eventually it will become advantageous to replace a major piece of equipment, such as a chiller. To prepare for these cases, develop an investment framework that considers TCO or life-cycle costs. Include expected maintenance costs in your calculations. During budgeting cycles, ensure that the appropriate parties are working together to secure sufficient funds in next year’s budget.
- **Energy procurement:** Explore all available options (on-site generation, green power purchasing, and other renewable energy) and create a comprehensive energy procurement strategy. Evaluate the costs and benefits of each option, factoring in all available rebates. This could enhance the reliability of your properties’ power supply and the stability of your energy costs. Remember, no matter what energy sources you tap into, consuming less will have the quickest impact on net operating income.

COMMUNICATE AND ACHIEVE BUY-IN.

Many organizations have guidelines in place, but lack consistent implementation. When rolling out your guidelines, budget time and resources to gain the support of all affected and provide the information necessary to change their current purchasing practices. Organizational systems, processes, job responsibilities, and habits that

NEW CONSTRUCTION & MAJOR RENOVATIONS

Don’t overlook the purchasing decisions involved in new construction and major renovations. Architects, engineers, mechanical contractors, and others all make purchases and provide specifications that impact energy use, whether they’re designing and constructing a new building, or performing a build-out. Encourage these parties to take a TCO perspective. If possible, create detailed design specifications for products and equipment that will be installed in your property.

support purchasing are likely fairly ingrained, making change challenging. Ultimately, buy-in by all parties, and recognition of the benefits of energy-efficient purchases, is necessary. Communicate with purchasing decision-makers using:

- Written procedural manuals and policies
- Training, either by providing stand-alone sessions on purchasing or incorporating purchasing information into general energy management training
- Plenty of opportunities to discuss and interpret guidelines with senior management

THE BOTTOM LINE:

- Purchases of everything from day-to-day items to large capital investments can greatly impact energy performance, and should be examined through the lens of any energy management effort.
- Develop incentives and guidelines covering all individuals that make or approve purchasing decisions – centralized purchasing departments, financial analysts, building operators, consultants, vendors, and tenants.
- Establish criteria and recommendations that result in the most efficient equipment that is practical, utilizing the total cost of ownership as a key consideration.
- Deploy your revised purchasing practices within the organization through written procedures, training, and open communication.

USEFUL LINKS:

The High Performance Portfolio Framework
www.betterbricks.com/office/framework

Sample Energy Efficient
Purchasing Guidelines
[www.betterbricks.com/healthcare/
tools&resources](http://www.betterbricks.com/healthcare/tools&resources)

Life-Cycle Cost Analysis
[www.betterbricks.com/office/
tools&resources](http://www.betterbricks.com/office/tools&resources)

Sample Request to Vendor for
Total Cost of Ownership Information
[www.betterbricks.com/healthcare/
tools&resources](http://www.betterbricks.com/healthcare/tools&resources)

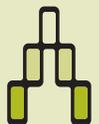
Sample Estimate of
Energy Efficient Purchasing Value
[www.betterbricks.com/hospitals/
tools&resources](http://www.betterbricks.com/hospitals/tools&resources)

ENERGY STAR Purchasing &
Procurement Guidelines
[www.energystar.gov/index.cfm?c=bulk_
purchasing.bus_purchasing](http://www.energystar.gov/index.cfm?c=bulk_purchasing.bus_purchasing)

Responsible Purchasing Network:
www.responsiblepurchasing.org

Good to Be Green directory of commercial
green building products and services
[www.goodtobegreen.com/
SearchCommercial.aspx](http://www.goodtobegreen.com/SearchCommercial.aspx)

Green Building Blocks product guide
[www.greenbuildingblocks.com/search_
products/browse_categories.go](http://www.greenbuildingblocks.com/search_products/browse_categories.go)



BETTERBRICKS
Bottom line thinking on energy.