

# **CEE Case Study**

## **Purchasing of Energy Efficient Products at the City of Portland**

The City of Portland recently developed a Draft Implementation Plan to encourage the purchase of energy efficient products. This plan was developed as part of a larger assessment of purchasing practices at the City of Portland with support from the Consortium for Energy Efficiency.

The City of Portland is widely regarded as a leader among its peer organizations. It is one of the largest local governments in the Pacific Northwest. Its progressive environmental orientation makes it a good candidate for adopting practices to encourage the purchase of more energy efficient products.

Energy consuming products are essential for carrying out the functions of City government. In buildings the major energy using functions are interior lighting, heating, ventilating and air-conditioning, and office equipment. Outdoor lighting for street lighting and around facilities and parks is another major energy user. Motors operating pumps and wastewater processing equipment are the major energy consuming pieces of equipment for the wastewater plant and the water utility. Vehicles are the other major energy consuming products for the City.

The City has experience with energy efficient products. The City of Portland launched a City Energy Challenge Program in 1990 that has reduced annual utility bills by almost \$1 million through energy efficiency improvements (this represents a 10% reduction). Some City bureaus have developed internal standards and continue to purchase energy efficient products such as energy efficient motors and lighting. However, there are opportunities for improvement.

The Bureau of Purchases is the central purchasing entity at the City of Portland. It establishes policies and procedures "to obtain goods and services the City needs to the City's best advantage." The Bureau of Purchases strives to maintain a competitive environment for purchasing, assure that as many vendors as possible have the opportunity to provide products and services to the City, maximize participation of women and minority owned businesses, and assure that awards are made to the lowest responsive and responsible bidder.

Our assessment of purchasing practices at the City of Portland included development of an advisory group of City staff, interviews with approximately 20 City staff, and close cooperation with the City of Portland Energy Office.

We learned that the specific procedures applied to a particular purchase vary by the purchase amount, the type of product being purchased, and the type of project (new construction versus existing facilities). There is a fair amount of flexibility within the

purchasing process for purchasers to identify and select the products they need and still meet competitive purchasing requirements.

The majority of purchases of energy consuming products at the City of Portland do not involve the Bureau of Purchases. Purchases under \$5,000 can be made independently by individual bureaus and only have to follow informal purchasing procedures. These purchases cover the majority of purchases of energy consuming equipment for existing buildings. For new construction projects, it is the responsibility of the winning contractor to purchase all the products for the building according to the specifications in the construction package. These purchases, which account for the majority of energy consuming product purchases in the City, are purchased outside of the City's purchasing process.

City staff in the bureaus or project designers develop the product specifications or select the specific products which will be purchased. The key factors that influence which products are selected include maintainability, lifetime, performance (will it meet the performance needs of the application), safety, availability, and price. The significance of each of these factors varies depending on the type of product and whether the product is for new construction or an existing facility. Energy efficiency is not directly considered in these decisions unless there is another reason to select the energy efficient product (such as a utility incentive or improved performance), or if energy efficiency is included in a bureau standard for the particular product.

Creating change towards the purchase of energy efficient products will be a challenge. Simple isolated strategies are not likely to be successful. It is not sufficient to simply provide more information or a better analysis tool.

Our research has identified some strategies that we believe will effectively encourage energy efficient purchasing at the City of Portland. Some of the strategies suggested by participants in our project that we believe are most relevant include:

- getting the word out on the relevance of energy efficiency,
- making it easy for City employees to buy energy efficient products,
- developing forums for City staff to share their knowledge and experience with products they use,
- developing standards or guidelines for specific energy efficiency products, and
- working within existing environmental initiatives in the city.

The implementation plan developed by the City Energy Office identifies action steps for overcoming the obstacles to energy efficient purchasing at the City of Portland. These obstacles include lack of a clear directive from City management, lack of information on how to identify and value energy efficient products, and an emphasis on first cost in the purchasing process. Key strategy elements include:

- provide a citywide statement of value or commitment from bureau management that communicates support for decisions to buy high-efficiency products.

- establish a City preference for high-efficiency products by adopting “Energy Star or equal” as the standard product requirement when purchasing energy consuming products.
- authorize and direct that purchasing decisions be based on life cycle cost principles rather than first cost alone.

It is our expectation that the purchase of energy efficient products will become one important element in the efforts by the City of Portland to improve environmental practices. By developing more consistent purchasing practices which encourage the purchase of high quality, efficient products, the City will benefit at a number of levels. We believe a reasonable energy saving target for an energy efficient purchasing initiative is \$500,000/year for the City of Portland. However, the benefits of the initiative will go well beyond energy savings.