Office of Building Technology, State and Community Programs

Buildings that are more energy-efficient, comfortable, and affordable...that's the goal of DOE's Office of Building Technology, State and Community Programs (BTS). To accelerate the development and wide application of energy efficiency measures, BTS:

- Conducts R&D on technologies and concepts for energy efficiency, working closely with the building industry and with manufacturers of materials, equipment, and appliances
- Promotes energy/money saving opportunities to both builders and buyers of homes and commercial buildings
- Works with State and local regulatory groups to improve building codes, appliance standards, and guidelines for efficient energy use
- Provides support and grants to States and communities for deployment of energy-efficient technologies and practices

TECHNOLOGY PROCUREMENT: A METHOD FOR SPEEDING TECHNOLOGY INTRODUCTION

Background

The U.S. Department of Energy (DOE) and Pacific Northwest National Laboratory (PNNL) are using an innovative approach to speed the market introduction of new, energy-efficient products. This approach, known as Technology Procurement, has been applied successfully to bring new refrigerators, subcompact fluorescent lamps, and other efficient products to market in recent years. DOE and PNNL are now using this approach for a number of new product categories.

What is Technology Procurement?

Technology procurement is a method to "pull" new technologies and products into the marketplace through competitive procurements backed by large volume buyers. In general, the sponsors of technology procurements undertake the following steps:

- ✓ Organize selected large volume buyers and market influencers (such as utilities);
- ✓ Interact with buyers to understand their business and technology needs in detail;
- ✓ Develop technical specifications in consultation with both buyers and manufacturers of the technology;
- ✓ Issue a competitive solicitation to potential manufacturers/suppliers, requesting bids and prices for new products meeting the specifications; and
- ✓ Select one or more winners from those bids, then implement marketing and consumer education programs to maximize the purchase of the newly available products.

By working closely with potential buyers, technology procurement greatly increases the likelihood that products brought to market will be well received by buyers. And by organizing large volume buyers for new products, technology procurement reduces the risks to manufacturers of new product introduction, and allows them to introduce products at more competitive prices.

Various forms of technology procurement have been used by DOE and other organizations, including the following examples:

- ✓ Energy-Efficient Window Procurement — Swedish National Energy Administration
- ✓ Apartment Size Refrigerator Program — New York Power Authority (NYPA), Consortium for Energy Efficiency (CEE), DOE
- ✓ Super Efficient Refrigerator Program (SERP) – CEE
- ✓ Copier Procurement — EPA, DOE, International Energy Agency

DOE TECHNOLOGY PROCUREMENT EXAMPLES

For more information about the DOE Office of Building Technology, State and Community Programs, contact:
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Subcompact Fluorescent Lamps (Sub-CFLs)

This technology procurement was designed to encourage the introduction of high-performance compact fluorescent lamps (CFLs) that were smaller, better performing, and less expensive than those available in the market. The competitive solicitation set aggressive size and performance specifications. As a result, 17 new sub-CFLs were introduced to the market between May 1998 and April 2000. Total sales exceeded 3.3 million lamps by the program's conclusion in August 2001.

For more information on the Sub-CFL Technology Procurement, contact **Linda Sandahl**, PNNL at **(503) 417-7554** or **linda.sandahl@pnl.gov.**

Residential Recessed Downlights

DOE and PNNL, in cooperation with utilities and energy efficiency organizations nationwide, are managing a program to introduce new energy-efficient, residential recessed downlight fixtures into the market. The procurement seeks airtight fixtures that are rated for use in insulated ceilings and hard-wired for compact fluorescent lamps.

Residential recessed cans have been identified as an energy intensive product in need of design improvements. Efficient recessed cans could cut energy consumption by approximately two-thirds.

For more information on the status of the Recessed Downlight Technology Procurement, contact **Jeff McCullough**, PNNL at **(509) 375-6317** or **jeff.mccullough@pnl.gov.**

Unitary Rooftop Air Conditioners

DOE (including the Federal Energy Management Program), PNNL and the Defense Logistics Agency (DLA) are engaged in a program to promote the introduction of highly efficient commercial rooftop air conditioners for federal and private buyers.

Expected product features include higher overall efficiency, with an energy efficiency rating (EER) of 13 or better, lower energy consumption over the range of temperatures encountered in typical applications, improved humidity control, and lower initial cost compared to other high-efficiency units.

For more information on the status of the Unitary Air Conditioner Technology Procurement, contact **Brad Hollomon**, PNNL at **(202) 646-5043** or **hollomon@pnl.gov.**