

# 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 their bids to provide 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



## A Strong Energy Portfolio for a Strong America

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.



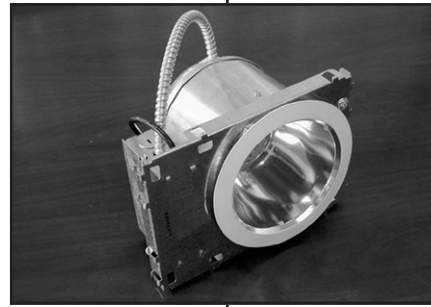
U.S. Department of Energy  
Energy Efficiency  
and Renewable Energy

## 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 sought 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](mailto:jeff.mccullough@pnl.gov). Website: [www.pnl.gov/cfldownlights](http://www.pnl.gov/cfldownlights).



## 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](mailto:linda.sandahl@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.

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](mailto:hollomon@pnl.gov). Website: [www.pnl.gov/uac](http://www.pnl.gov/uac).



**For Program Information on the Web:**  
<http://www.buildings.gov>


**For Program and Product Information on the Web:**

[www.eren.doe.gov/buildings/emergingtech](http://www.eren.doe.gov/buildings/emergingtech)

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PNNL-SA-40225  
November 2003

 Printed with soy ink on recycled paper