



## SECTOR OVERVIEW

# Commercial Energy Efficiency



**Commercial businesses use energy in ways that mirror the diversity of their individual operations. The commercial sector of the economy provides utilities with a broad range of opportunities for capturing energy efficiency.**

The commercial sector offers a range of opportunities to help customers save money and energy with energy efficiency. Improvements to energy efficiency reduce costs for businesses and public sector organizations.

The commercial sector includes nonmanufacturing business establishments, such as hotels, motels, restaurants, wholesale businesses, retail stores and distribution warehouses. It also encompasses healthcare, social and educational facilities, and federal, state and local governments.

The Northwest Power and Conservation Council's Sixth Power Plan recognizes significant potential energy savings in the commercial sector. Of the 504 average megawatts of savings public power is expected to capture over the next five years, BPA expects to acquire 94 average megawatts from commercial sector utility programs.

BPA offers commercial energy efficiency programs that target the areas with the greatest opportunity for energy savings. Potential savings in the commercial sector are dominated by lighting, followed by refrigeration and heating, ventilation and air conditioning. Additional measures target end uses, such as foodservice and computing.

BPA supports commercial energy efficiency programs with financial incentives. These incentives can reduce customers' cost of upgrading to energy efficient options and help offset utility implementation costs. The specific reimbursement varies by program. For specific amounts, please see the BPA Energy Efficiency Implementation Manual.

## Commercial energy efficiency opportunities

### Non-residential lighting program

Lighting accounts for more than 40 percent of the savings potential in the commercial sector. Because lighting is the largest and most accessible commercial sector efficiency opportunity, BPA continues to expand the number of efficiency measures available. These measures help utilities capture targeted commercial lighting opportunities through use of fluorescent, light emitting diode (LED), electronically ballasted metal halide and other efficient fixtures.

BPA also sponsors the Northwest Trade Ally Network for Commercial and Industrial Lighting, a regional resource that provides training and support to help utilities and contractors work together to deliver lighting efficiency projects.

### Grocery refrigeration

Grocery refrigeration accounts for 12 percent of the commercial sector savings potential identified in the Sixth Power Plan. BPA targets commercial refrigeration conservation potential by sponsoring the BPA EnergySmart Grocer program for its customer utilities. Delivered by program partner Portland Energy Conservation Inc., the program offers more than 88 measures in 16 measure categories to grocers and others with commercial refrigeration load in participating utility territories. The program has saved more than 17.5 average megawatts regionwide since its launch.



A number of grocery refrigeration measures are also available to customers directly through the implementation manual.

## Heating, ventilation and air conditioning

The majority of commercial heating, ventilation and air conditioning opportunities are available through the custom project path. Prescriptive incentives for ductless heat pumps and air source heat pumps in small commercial buildings and Web-enabled programmable thermostats in modular classrooms are part of an ongoing effort to enhance the offerings of straightforward commercial HVAC opportunities. With 21 percent of the commercial conservation potential target tied to HVAC programs, BPA is using its current offers to help collect data to build a more robust program.

## Shell measures

BPA now offers incentives for retrofit insulation and windows in small commercial buildings. The current program will help BPA collect data, build a more robust program and help utilities capture the potential of these measures. Shell measures are also available through the custom project path.

## Commercial kitchen and food service equipment

To help utilities capture energy savings from energy-intensive kitchen equipment, BPA offers incentives for qualified installations of high-efficiency commercial kitchen and food service electric equipment. Savings from installation of high-efficiency equipment can range between 10 percent and 30 percent among refrigerators, freezers, icemakers, steamers, hot food holding cabinets, combination ovens, convection ovens, fryers, dishwashers and pre-rinse spray wash valves. Incentives are also available for recycling residential refrigerators and freezers from commercial buildings.

## New construction

BPA offers multiple paths to access efficiency opportunities in commercial new construction, including both standardized design packages and custom projects.

## Plug load

BPA targets commercial office plug load from idle equipment such as scanners, computer monitors, printers and desk lighting with an incentive for smart power strips. Smart power strips monitor and actively manage plug load usage from electrical equipment, turning off the power supply to devices that are not in use.

BPA also offers incentives for the installation of computer power-management solutions that monitor workstation activity and switch equipment to low power mode when not in use.

## Appliances

Commercial clothes washers on the ENERGY STAR commercial list may be claimed as a commercial measure. The ENERGY STAR list includes commercial laundry and multifamily common area coin-operated machines.

## Water heating

BPA will reimburse customers for cost-effective energy-efficient electric storage water heaters that meet a minimum energy factor. Incentives apply to both residential and commercial model water heaters installed in commercial buildings. BPA will also reimburse for the direct installation of low-flow showerheads in some commercial buildings.

## For more information

Please visit [www.bpa.gov/go/commercial](http://www.bpa.gov/go/commercial).

For EnergySmart Grocer visit:  
[www.energysmartgrocer.org/](http://www.energysmartgrocer.org/)

For Trade Ally Lighting information see:  
<http://northwest-lighting.org/>