



BPA ENERGY EFFICIENCY COMMERCIAL NEW OPPORTUNITIES GUIDE



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Introduction

The Bonneville Power Administration, or BPA, energy-efficiency program is continuously evolving to meet Public Power's share of energy savings targets laid out by the Northwest Power and Conservation Council's Power Plan. Strategically, BPA also uses energy efficiency to address future energy-resource constraints cost effectively. To achieve these two goals, BPA periodically reviews program offerings. This Commercial New Opportunities Guide is a resource that utilities can use to help identify measures, programs and opportunities that support their energy efficiency programs. For more information on the complete suite of Commercial sector program components and offerings, please consult the [BPA Implementation Manual](#).

The Commercial sector includes electrical energy used in service-providing, nonmanufacturing businesses and building facilities. These business types include federal, state and local governments, and other private and public organizations. The Commercial sector building types include: office, retail, grocery, foodservice, lodging, hospital/healthcare, assembly, residential care and educational institutions.



Commercial Measures

BPA provides a wide range of Commercial sector opportunities to assist BPA's customer utilities in serving their commercial customers with cost-effective energy savings. Sector opportunities include a comprehensive lighting program and a suite of deemed HVAC technologies for every commercial building type.

BPA's commercial portfolio is rounded out by a variety of offerings related to refrigeration, commercial kitchen equipment, building envelope, plug load and more.

For more complex projects, BPA has a team of customer service engineers, or CSE, to support customer utilities in identifying custom project opportunities for retrofit and new construction. Every utility has an assigned CSE they can count on to help address any technical questions.



Sector Offerings

HEATING, VENTILATION AND AIR CONDITIONING

Efficient HVAC technologies provide an abundant large, relatively untapped source of savings in the Commercial sector. Recognizing the critical role HVAC plays in achieving regional efficiency targets, BPA delivers a suite of HVAC offerings to support customer utilities in capturing higher volumes of HVAC energy savings.

Project information forms and qualified product lists utilities can customize for their programs are available in the [BPA Implementation Manual Document Library](#).

CASE STUDY:

[Ductless Heat Pump Strikes Chord with Music Studio](#)



NONRESIDENTIAL LIGHTING

BPA's nonresidential lighting measures are offered via the BPA Lighting Calculator, a Microsoft Excel-based, site-specific tool. The lighting calculator offers a robust selection of deemed and calculated incentives for interior and exterior Light Emitting Diode, or LED, lighting.

The current version(s) of the lighting calculator can be found in the [IM Document Library](#) and the [Commercial/Industrial Lighting page](#). The lighting calculator can be customized to include utility logos, utility-specific rates used to determine project payback/return on investment and tailored incentives.

For assistance, please contact the BPA lighting team at lighting@bpa.gov, or your assigned Trade Ally Network NW, or The Network, [Field Specialist](#).

CASE STUDY:

[Lighting By The Book](#)



ADDITIONAL UNIT OF ENERGY SAVINGS OFFERS

BPA offers a range of other offers to assist customer utilities in serving a wide variety of commercial customers. These include:

- Shell (i.e. insulation and windows).
- Refrigeration.
- Kitchen and food-service equipment.
- Commercial clothes washers.
- Smart power strips.
- Generator engine-block heaters.
- Vehicle engine-block heater controls.

For more information about these offers, including BPA requirements, energy savings and BPA payment information, please refer to the [Implementation Manual](#).

CUSTOM PROJECTS

Commercial buildings often have highly complex, unique systems with variable operations. For this reason, many commercial energy-efficiency opportunities are best approached as custom projects. BPA has a team of customer service engineers, or CSEs, on hand to support customer utilities in identifying custom project opportunities for retrofit and new construction.

The [Implementation Manual](#) provides a robust section on Custom Project eligibility and process. In addition, you may contact your CSE, or energy efficiency representative, or EER, to discuss custom project requirements and opportunities.



Sector Programs

TRADE ALLY NETWORK NW

Trade Ally Network NW is a third-party program, for which BPA has hired a third-party implementer to administer all aspects of the program. The Network serves utilities, and commercial lighting and HVAC trade allies throughout the Northwest.

PROGRAM OBJECTIVES:

- Facilitate trusted, long-term partnerships with trade allies.
- Promote greater adoption of BPA-eligible energy-efficient technologies by trade allies.
- Improve uptake of installation best practices by trade allies.
- Enhance trade ally knowledge of how to select and sell higher efficiency products.
- Improve trade ally knowledge of how to ensure the persistence of energy savings.
- Increase the uptake of nonresidential lighting and HVAC energy-efficiency measures in BPA's service area.
- Supply project support for utility program managers and trade allies.
- Provide education and training services to trade allies and utilities regarding program requirements, energy-efficient technologies and best practices for installing these technologies.

PROGRAM SERVICES

- **Program administration.** The Network management team, with oversight from the BPA Commercial & Industrial sector lead, oversees the overall implementation of the program contract, and leads the lighting and HVAC strategy.
- **Field support.** The Network utilizes a team of Field Specialists to promote and support utility programs for qualifying measures throughout BPA's service area. The team provides technical support, lighting and HVAC outreach and training, and support to key manufacturers, distributors and other key market players in the region.
- **Marketing.** This is at the core of BPA's commercial efforts to promote The Network. This includes the development of critical program resources such as the Field Guide and marketing toolkits.

The Network [website](#) offers the following tools and resources:

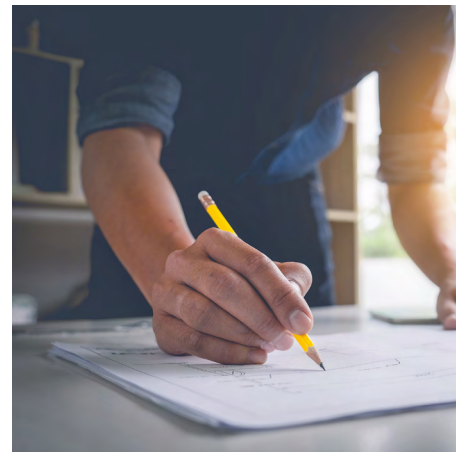
- [Online learning center](#).
- Trade Ally Finder [tool](#).
- [Case studies](#) and [Field Guide](#).
- Utility marketing [toolkits](#).
- Registration for annual [workshops](#) and other training opportunities.

LOCAL UTILITY PROGRAM SUPPORT

You can call on The Network to train and support your contractor community, and help identify and scope efficiency opportunities in commercial lighting and HVAC. To get started, contact your EER or reach out to your Network [Field Specialist](#).



**TRADE ALLY
NETWORK^{NW}**
Building Success Together



Sector Savings Overview

TOP TEN MEASURES

These measures have been utilized the most across the region, and they serve as a great starting point when developing new energy efficiency offerings for your end-use customers.

1. Lighting
2. Connected Thermostats
3. Ductless Heat Pumps
4. Advanced Rooftop Unit Controls
5. Air-Source Heat Pumps
6. Walk-in Cooler and Freezer Strip Curtains
7. Windows
8. Variable Refrigerant Flow Systems
9. Insulation
10. Anti-Sweat Heater Controls



Resources

The following resources are available to help utilities optimize their working relationships with BPA, program operations and other personnel to support utilities in their work to achieve better energy efficiency and savings.

MARKETING MATERIALS

You can access program marketing support in several ways:

[Trade Ally Network NW](#). The Network has a robust marketing team and resources designed to support you in creating materials for your end-users. To access marketing support, please contact your local Field Specialist.

[BPA Marketing Portal](#). Access a wide range of easily customizable, ready-made marketing materials, and an image library to help utilities communicate about the benefits of energy-efficiency products and current rebate offers. Customer utilities who do not have the resources to work with the files or need customization beyond what is offered on the portal may also work directly with the Program Marketing team.

[Utility Toolkits](#). The Network has developed a suite of marketing materials that make it easier for utilities to promote selected commercial energy-efficiency HVAC upgrades to customers and trade allies in your region. You can customize many of these materials, including incentive flyers, forms and documents, and marketing-outreach tools for end-users in your service territory with your logo and contact information.



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CONNECTED THERMOSTATS FOR COMMERCIAL BUILDINGS

INCREASE FUNCTIONALITY
MAXIMIZE COMFORT
OPTIMIZE ENERGY USAGE

TAKE CONTROL OF COMFORT

Making the switch to a connected thermostat gives you more control over your building's HVAC system and can help you manage and reduce your energy consumption and costs.

Your local electric utility may offer up to \$200 for qualifying connected thermostat installations.

BENEFITS MAY INCLUDE

- Simple programming
- Remote access via smart devices
- Automatic updates
- Web-based monitoring and alerts
- Reduced energy costs

CONTACT YOUR LOCAL UTILITY ABOUT INCENTIVES. UTILITY PARTICIPATION AND INCENTIVES VARY.

Energy Efficient **COMMERCIAL LIGHTING**

REDUCE MAINTENANCE
IMPROVE APPEARANCE
SAVE MONEY

A BRIGHT IDEA!

Upgrading your existing commercial lighting system to energy efficient LED lighting can help increase productivity, comfort, and the value of your commercial space.

Your local utility may offer incentives covering **25-70%** of the project costs for most LED lighting upgrades.

BENEFITS MAY INCLUDE

- Improved appearance
- Reduced maintenance costs
- Brighter, safer environment
- Variety of controls available

Northwest Trade Ally Network
Commercial & Industrial Lighting

CONTACT YOUR LOCAL UTILITY ABOUT INCENTIVES. UTILITY PARTICIPATION AND INCENTIVES VARY.

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VARIABLE FREQUENCY DRIVES FOR COMMERCIAL BUILDINGS

ON AIR HANDLING UNIT FANS

INCREASE ENERGY SAVINGS
REDUCE MAINTENANCE
LOWER OPERATING COSTS

DRIVING DOWN CONSUMPTION

Your local utility may offer up to \$500 per horsepower for qualifying variable frequency drives (VFD) on air handling unit (AHU) fan installations.

Adding a VFD on a constant speed AHU fan allows the drive to match the amount of energy the motor needs for the amount of work that is being done. This allows for greater energy savings and an extended life of the motor.

BENEFITS MAY INCLUDE

- Reduced energy costs
- Reduced fan usage
- Long life span
- Precise temperature control

CONTACT YOUR LOCAL UTILITY ABOUT INCENTIVES. UTILITY PARTICIPATION AND INCENTIVES VARY.

Tips to help reduce your energy bills in commercial buildings

Saving energy and money makes good business sense. Increasing energy efficiency is one of the easiest ways for a business to reduce operating expenses. These tips below can help reduce energy bills in commercial properties.

Beware of vampires. Did you know vampire loads — or power consumed even when electronics are turned off — can add up to high costs? Advanced power strips, primarily used for workspaces, prevent vampire loads by cutting power to specific outlets until you use your devices again. Can't find a smart power strip or unable to locate one online? Keep unused, non-essential electronics unplugged until you need to use them again.

Get connected. Install a programmable thermostat that you can control over the Internet. A smart thermostat has the capability to automatically adjust the temperature of your workspace when no one is working, and you can control your building temperature from afar. Less heating and air conditioning can result in significant energy savings for your business.

Stack the savings. Consider where energy is used and look for opportunities to save across the whole workplace. Educate your employees on using the energy-saving features of smaller appliances such as air conditioners, printers and microwaves to help reduce energy costs. If you have a hot water heater, consider turning the temperature down or off if appropriate to save energy. Also, be existing policies and training staff to turn off computers or switching them to hibernate mode at the end of the workday. Energy savings can add up quickly.

Harness the power of technology. Virtual meeting technologies allow you to hold meetings, give presentations and make long-distance phone calls without going to a client's office or holding meetings on-site. Additionally, allowing employees to work from home using remote technologies will mean lower utility costs from lighting, cooling and water heating.

Take control. Lighting controls can help stop excessive use by automatically turning off lights that aren't being used. You can also program lighting zones to light workspaces while they are in use and dim corridors, cafeterias and meeting rooms when not in use.

Access incentives. Local utilities may offer commercial incentives for energy-efficient upgrades to your building's heating and cooling, lighting and other equipment.

Contact your local utility for more information on how to save energy and reduce costs for your business.

COMPANY LOGO
PUBLIC UTILITIES

WINDOWS FOR COMMERCIAL BUILDINGS

INCREASE PROPERTY VALUES
ENHANCE AESTHETICS
REDUCE COSTS

SEAL IN THE SAVINGS!

Upgrading your windows will reduce your monthly utility bill while making you more comfortable and increasing the value of your commercial property.

WHY ACT NOW?

Your local utility may offer qualifying incentives of **15-30%** off for qualifying installations.

BENEFITS MAY INCLUDE

- Greater comfort
- Reduce energy costs
- Improve indoor air quality
- Increase value of commercial space

CONTACT YOUR LOCAL UTILITY ABOUT INCENTIVES. UTILITY PARTICIPATION AND INCENTIVES VARY.

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HEAT PUMP UPGRADES AND CONVERSIONS FOR COMMERCIAL BUILDINGS

INCREASE COMFORT
REDUCE ENERGY COSTS

**MAXIMUM COMFORT
MINIMUM COST**

Your local electric utility may offer up to \$1,000 per heat pump (less than six tons) or \$200 per ton of cooling capacity (between six and 20 tons) for installing a heat pump upgrade, or \$500 per ton of cooling capacity for heat pump conversions.

Upgrading your existing heat pump or installing a heat pump as part of a new construction project will help increase comfort for occupants and increase the value of your commercial space.

BENEFITS MAY INCLUDE

- Increased value of commercial space
- Less maintenance than traditional heating systems
- Long life span

CONTACT YOUR LOCAL UTILITY ABOUT INCENTIVES. UTILITY PARTICIPATION AND INCENTIVES VARY.

Showcase in Style

Enhance visual merchandising, improve customer experience, and increase sales with LED retail lighting.

Upgrade your retail display lighting today and maximize savings with utility rebates!

Show retail atmosphere, and visual merchandising displays are all critical to the customer experience and success of a retail environment. So retail stores of all sizes demand excellent lighting to properly display products. Retail stores throughout the region are utilizing high performance stores in LED lighting to illuminate products and create customers to drive sales while saving money. Energy efficient LEDs cost less per month, last longer, and require less maintenance resulting in a reduction in energy costs.

LED lighting offers a range of light temperatures so whether you are selling furniture or sporting goods, you can find the perfect evidence for your store. Additionally, LED lighting has low heat output and does not emit UV rays, keeping your products and decorative walls safely properly displaying their true texture and colors. Contact your local utility to see what incentives are available for upgrading to stores in LED lights.

Benefits of Installation

- Reduce energy consumption by up to 50% compared to standard retail lighting.
- Lower maintenance costs with fewer replacements.
- A variety of controls, including photo sensors and dimming controllers, can be added to most fixtures for additional savings.

Utility Name
Utility Address Line 1
Utility Address Line 2
Utility Phone Number
Utility Email / Website

COMPANY LOGO
PUBLIC UTILITIES

SAVE THE POWER

USE SMART POWER STRIPS

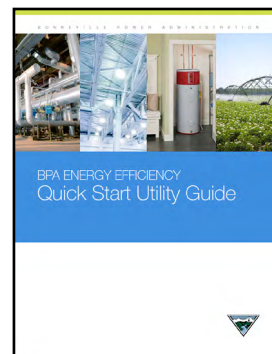
GETTING STARTED WITH COMMERCIAL PROGRAMS

Access to Commercial sector resources is as easy as reaching out to your EER, local Trade Ally Network NW Field Specialist, or BPA CSE.

The Network also provides annual workshops that help you stay connected with your local contractors, receive training on new technologies, and get engaged with lighting and HVAC demonstrations.

Get started by emailing tradeallynetworknw@evergreen-efficiency.com.

You can also consult the [BPA Energy Efficiency Quick Start Utility Guide](#) for information including overviews, references, links to additional resources for common tasks, and activities and responses to your potential questions.



CUSTOMER SERVICE

Roles and responsibilities: EERs are accountable for building and maintaining customer relationships and act as the key means to support BPA's Energy Efficiency program communication with utilities. EERs lead the customer service team — composed of the EER, field engineer, and the contracting officer's representative — for each utility. EERs work with all BPA staff, third-party staff and contract support to provide oversight, coordination, and execution of communication to and from utilities.

How do we work together? Your EER should be your first point of contact for any questions, comments, or concerns about BPA's Energy Efficiency program. If your EER doesn't know the answer, he or she will find it and get back to you, or put you in touch with the right person.



BPA CUSTOMER SERVICE ENGINEERS

CSEs work with customer utilities to identify, plan and support custom energy-efficiency projects. Engineers often partner with utilities to work directly with end-users to facilitate large-scale technical projects. They can also make hands-on site visits, and provide remote implementation support for utilities and end-users.



PROGRAM, LIGHTING AND HVAC RESOURCES

Trade Ally Network NW

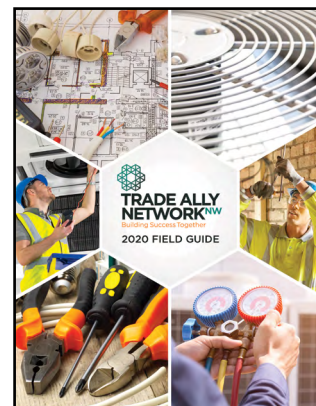
[Trade Ally Network NW](#) provides access to the Trade Ally Finder, Field Guide, Utility marketing toolkits, and case studies. Register for workshops, visit the online learning center and more.

TANNW Field Guide

[The 2020 Field Guide](#) offers both HVAC and lighting resources in one easy-to-use handbook. You'll find technical information to complement the workshop experience as well as sales tips, best practices, utility contact information and more to support you in the field.

TANNW Sales Tools

[From this page](#) you can find workshops, link to the online training portal, read case studies, brush up on sales skills, and download technical documents and product lists.



GENERAL RESOURCES

Better Bricks

[Better Bricks](#) is an initiative of the Northwest Energy Efficiency Alliance that showcases resources for commercial building owners.



LIGHTING ONLY RESOURCES

Design Lights Consortium

[Design Lights Consortium](#) is a nonprofit organization dedicated to accelerating the widespread adoption of high-performing commercial lighting solutions. Provider of industry-leading Qualified Products Lists for LED fixtures and networked lighting controls.



Measure Summary Table

The payment levels described in this table provide a summary only and can change. Complete, up-to-date details of the payment levels and associated requirements are in the Commercial Sector section of the [Implementation Manual](#).

7.1 PAYMENT SUMMARY*	
PROGRAM COMPONENT OR MEASURE	PAYMENT
7.2 Commercial Custom Projects—Retrofits and New Construction	See the 4.1 Custom Projects Payment Rate in the Implementation Manual
7.3 Nonresidential Lighting	See 7.3 Nonresidential Lighting Payment Table and Program Offerings section of Lighting Calculator
7.4 Commercial HVAC	
7.4.1 Advanced Rooftop Unit Control (ARC)	\$100 per ton (ARC Retrofit - Lite) \$200 per ton (ARC Retrofit - Full)
7.4.2 Connected Thermostat	\$150 per connected thermostat (Initial Install) \$50 per connected thermostat (Verification)
7.4.3 Ductless Heat Pump Retrofit and Upgrade (BPA-Qualified)	\$1,000 per ton (Retrofit) \$300 per ton (Upgrade)
7.4.4 Air-Source Heat Pump Retrofit and Upgrade (BPA-Qualified)	\$1,000 per ton (Retrofit) \$150 per ton (Upgrade)
7.4.5 Variable Refrigerant Flow System Retrofit (BPA-Qualified)	\$1,000 per ton
7.4.6 Variable Frequency Drive on Air Handling Unit Fan (BPA-Qualified)	\$300 per horsepower
7.5 Commercial Shell Measures	
7.5.1 Commercial Insulation (BPA-Qualified)	\$0.75-\$2.10 per square foot
7.5.2 Commercial Windows (BPA-Qualified)	\$9 per square foot of window replaced (Heating Zone 1) \$18 per square foot of window replaced (Heating Zone 2) \$18 per square foot of window replaced (Heating Zone 3)
7.6 Commercial Refrigeration	
7.6.1 Anti-Sweat Heater (ASH) Controls	\$40 per linear foot of case
7.6.2 Walk-In or Display Case Evaporator Fan Motors-Shaded Pole to Electronically Commutated Motor (ECM)	\$55 per motor (ECM on Display Case) \$140 per motor (ECM on Walk-In Cooler or Freezer)
7.6.3 Strip Curtains for Walk-In Coolers and Freezers	\$9 per square foot of doorway
7.7 Commercial Kitchen and Food Service Equipment	
7.7.1 Demand Controlled Kitchen Ventilation (BPA-Qualified)	\$200-\$400 per fan horsepower
7.7.2 Electric Commercial Steam Cookers	\$500 per pan (6 pan cooker)

7.1 PAYMENT SUMMARY*	
PROGRAM COMPONENT OR MEASURE	PAYMENT
7.7.3 Hot Food Holding Cabinets	\$250 per cabinet (Half Size) \$500 per cabinet (Full Size) \$1,000 per cabinet (Double Size)
7.7.4 Electric Combination Ovens	\$500 per oven (5-15 pan oven or 16-20 pan oven)
7.7.5 Electric Convection Ovens	\$200 per oven (Half size) \$400 per oven (Full size)
7.7.6 Commercial Electric Fryers	\$250 per fryer
7.7.7 Pre-Rinse Spray Wash Valves	\$100 per spray valve
7.8 Additional UES Offerings	
7.8.1 ENERGY STAR Commercial Clothes Washers	\$25-\$125 per washer
7.8.2 Smart Power Strips	\$15 per strip
7.8.3 Commercial Showerheads	\$8 per showerhead (By Request) \$11 per showerhead (Direct Install)
7.8.4 Generator Engine Block Heaters (BPA-Qualified)	\$200 per unit (Size <3 kW) \$1,500 per unit (Size ≥3 kW)
7.8.5 Vehicle Engine Block Heater Controls	\$200 per unit
Additional Multisector Opportunities	
Some Agricultural, Industrial, or Residential measures may be applicable to Commercial projects. Measures eligible for installation in multiple sectors are identified where applicable in the body of the IM in the primary sector.	