

Technology Profile

Advanced Lighting

Recent innovations are transforming lighting technology beyond energy savings. Advanced lighting solutions offer enhanced ease of control, color rendering, extended life and better performance in cold environments. PECO Ways to Save offers incentives for commercial, industrial and institutional customers who install high-efficiency lighting and energy-saving controls.

Manage Costs

Lighting makes up 17% of all electricity consumed in U.S. commercial buildings.¹ Facilities can reduce lighting costs with LED lighting and advanced controls. Pay for the right amount of light when and where it's needed—nothing more.

- Think of light quality, not quantity. More is not necessarily better.
- Match each business function to a desired amount and quality of light.
- Install task lights wherever necessary to reduce ambient light.
- Maximize the use of daylighting.
- Use energy-efficient lighting components, controls and systems.

Enjoy the Benefits of LEDs

LED lighting uses 90% less energy and lasts 15% longer than traditional bulbs.² Better duration and reduced wattage requirements mean less energy use, reduced maintenance costs and greater savings. Plus, LEDs:

- Emit light in a specific direction, reducing the need for reflectors and diffusers.
- Reach full brightness instantly.
- Perform at optimal levels in colder temperatures.
- Integrate into a control system for superior flexibility.



Save More With Advanced Controls

Advanced controls enable lighting-level adjustments based on the time of day or use of the workspace:

- Occupancy sensors use motion, heat or sound to adjust lighting levels automatically when someone enters a room.
- Dimmer controls, or task tuning, reduce a bulb's wattage and output. Certain LEDs can be dimmed anywhere from 0.1% to 100%. Dimming LEDs reduces internal device temperatures, prolonging the service life of components.
- Motion sensor controls turn on when detecting motion and turn off a short while later. In outdoor applications, sensors are ideally paired with photosensor controls.
- Photosensor controls detect ambient light, preventing outdoor lights from turning on during daylight hours.
- Daylight harvesting adjusts lighting levels in relation to how much natural light is present within a workspace.

Integration through a wired or wireless networked system maximizes control over energy costs and system design — so you save even more. Facility managers can apply daylight harvesting settings across similar areas of a building or configure different common areas to lighting levels suitable for the space. Networked systems allow individuals to control their personal workspace while still automating lighting in shared areas.

Lighting That Energizes Workers —and Adapts in Real Time

A range of lighting controls—from dimmers to motion and occupancy sensors to photosensors—combine in new AI-driven lighting controls systems. Layered data and machine algorithms process that data to instantly detect patterns, preferences and usage habits—and to react.³

The result is lighting that optimizes energy savings, comfort and functionality. Improved lighting can matter quite a lot in workspaces. Because lighting conditions affect our circadian rhythm (the body's internal clock), it's vital for worker efficiency that new systems mimic natural light.⁴ Smart lighting does this better than ever before, dialing in optimal lighting conditions based on the time of the year and even whether clouds have rolled in outdoors. With studies showing that proper lighting improves sleep patterns, boosts mental health, increases alertness and improves cognitive performance, upgrades in AI-driven lighting controls are set to make a huge difference in a range of workspaces.⁵

Incentives for Lighting and Controls

PECO Ways to Save offers two options for incentivizing advanced lighting installations:

1. Get instant lighting discounts from participating distributors. Visit peco.com/InstantDiscounts to learn more about the products that are discounted.
2. Submit a project application to qualify for incentives on a wide range of lighting and control technologies. Visit peco.com/business to learn more about available incentives.

Typical Advanced Lighting Solutions

Interior Lighting

- LED High-Bay Fixtures and/or Retrofit Kit
- LED Refrigeration Case Lighting (Reach-In)
- LED Replacement Lamps (Tubes)
- Permanent Fixture Removal
- Unitary Sensor Controls
- Centralized (Networked) Lighting Controls

Exterior Fixtures

- ENERGY STAR® Integral LED Fixture: Outdoor Recessed Downlight and Retrofit Module
- LED Outdoor Flood Light Fixtures
- LED Parking Garage and Canopy Fixtures and Retrofit Kits
- LED Pole/Arm-Mounted Parking and Roadway Fixtures and Retrofit Kits
- LED Wall-Mount Fixtures and Retrofit Kits

► Contact Us Today!

For more information, visit peco.com/business or call **1-844-4BIZ-SAVE** (1-844-424-9728).

¹"Upgrade Your Lighting." energystar.gov. 2025, energystar.gov/buildings/save-energy-commercial-buildings/ways-save/upgrade-lighting. Accessed 20 February 2025.

²"Upgrade Your Lighting." energystar.gov. 2025, energystar.gov/buildings/save-energy-commercial-buildings/ways-save/upgrade-lighting. Accessed 20 February 2025.

³"The Future of Lighting: AI-Integrated and Sustainable." ledexpoithailand.com, 2024, ledexpoithailand.com/the-future-of-lighting-ai-integrated-and-sustainable/. Accessed 7 December 2024.

⁴"Circadian Rhythm: What It Is, How It Works & What Affects It." Cleveland Clinic, 2024, my.clevelandclinic.org/health/articles/circadian-rhythm. Accessed 7 December 2024.

Irvine, Jessica. "What Is Human Centric Lighting?" Action Services Group, 2023, actionservicesgroup.com/blog/what-is-human-centric-lighting/. Accessed 7 December 2024.