peco℠
AN EXELON COMPANY

Optimize Your Building's Cooling Systems

with PECO Ways to Save

peco℠
AN EXELON COMPANY

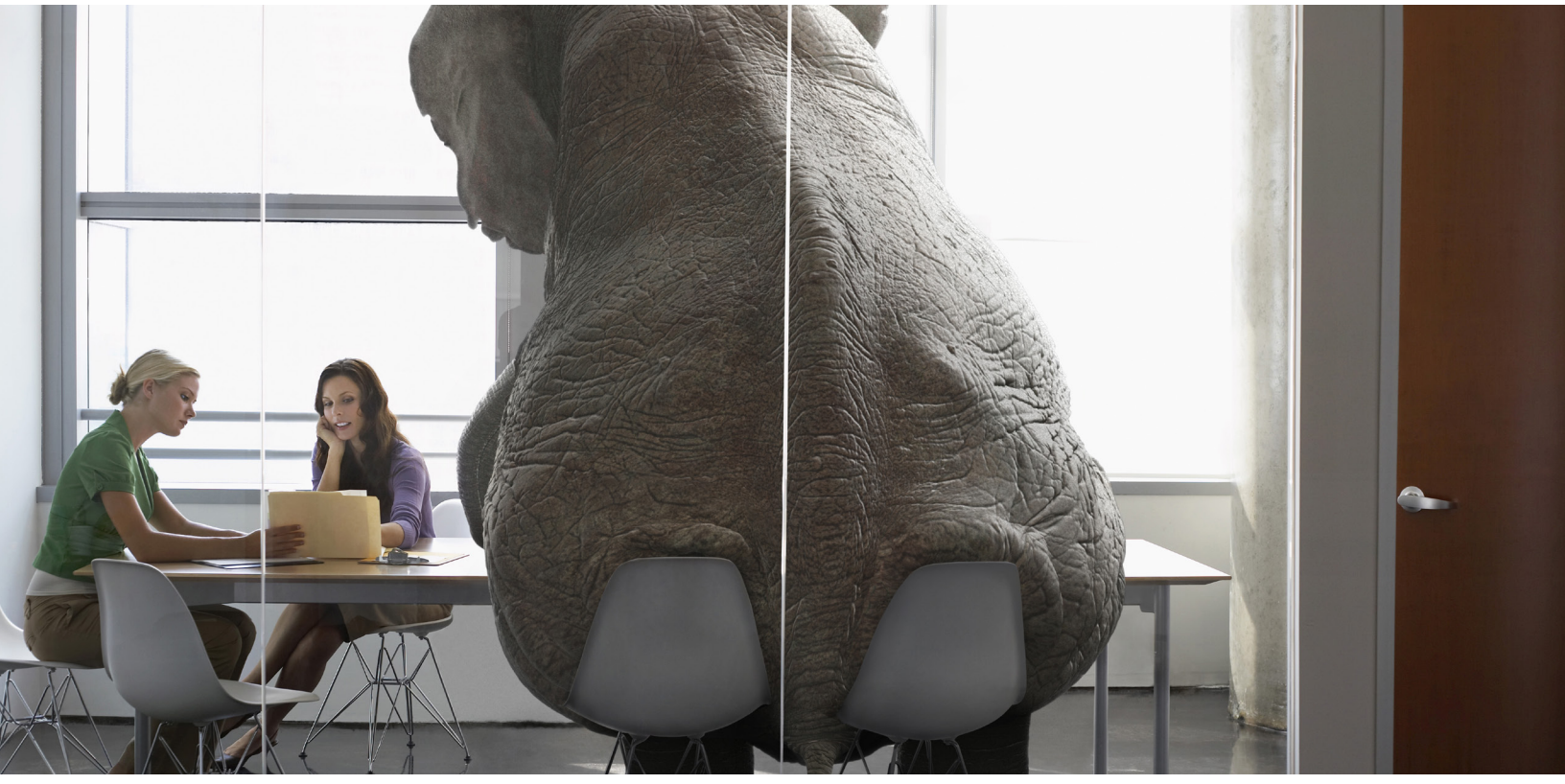
Optimize Your Building's Cooling Systems with PECO Ways to Save

As spring transitions into summer,

flowers bloom, temperatures rise and building cooling demands increase. Decision-makers like yourself can optimize your building's cooling and ventilation systems to maximize energy efficiency, cost savings and incentives.

This article will explore five strategies to make cooling and ventilation more efficient during the warmer months. These strategies will empower and equip you to create a comfortable and sustainable working environment through the spring, summer and beyond.

Assess your building's cooling systems, including HVAC units, ventilation systems and insulation. By identifying areas where energy may be wasted, you'll pinpoint leaks, outdated equipment and repairs that can return long-term energy savings.



Top 5 Strategies to Stay Cool and Save Energy

Here's how the U.S. Department of Energy suggests reducing energy waste and optimizing existing cooling and ventilation systems:

1. Conduct Preventive Maintenance

In addition to an annual system inspection, it's important to carry out routine preventive maintenance to ensure your system is operating efficiently.

Consider this checklist before and throughout summer:

- Replace air filters and clean air registers — blockages can lead to equipment working harder to cool your facility.
- Listen for unusual sounds while cooling equipment is operating.
- Ensure oil temperature and pressure are in line with the manufacturers' recommendations.
- Examine motors and fan belt drives and ensure they're properly lubricated.
- Check the tension and alignment of fan belts.
- Monitor for mold and mildew. Mold and mildew thrive in warm, humid environments, especially HVAC unit coils, and evidence of them could indicate that cooling equipment is malfunctioning and might require cleaning.

2. Adjust Controls and Automation and Optimize HVAC Systems

Heating, ventilation and air conditioning (HVAC) systems are major contributors to energy consumption. To better enhance cooling efficiency, consider the following:

- **Programmable Thermostats:** Install programmable or smart thermostats to regulate temperature settings automatically. This allows you to adjust cooling based on occupancy and specific temperature setpoints, reducing unnecessary energy usage.
- **Zoning Systems:** Implement zoning systems to control cooling and ventilation in specific areas. By tailoring temperature settings according to individual needs, you can reduce energy waste and increase employee comfort.

3. Maximize Natural Cooling and Ventilation

In general, south- and west-facing windows receive more direct sunlight, which can heat buildings through solar gain, resulting in an increased need for cooling system operations. Adding window film, screens, blinds and curtains can mitigate temperature increases associated with solar gain. Utilizing the power of natural ventilation replaces the need for excess air conditioning.

Consider these natural cooling strategies:

- Plant trees in the area of those windows to create more shade.
- Caulk/weatherstrip areas around windows and doors where air leaks could let in warm outside air in the summer.
- Install energy-efficient windows and adjustable shades to allow natural light and fresh air in while minimizing heat gain. Reflective coatings or films can reduce solar heat gain during peak sunlight.
- Design your workspace to facilitate cross-ventilation by strategically placing windows and doors. This creates a natural airflow and reduces reliance on air conditioning.

4. Invest in High-Efficiency Equipment and Install Economizers

HVAC economizers use sensors to measure the outside air temperature and humidity levels. When the temperature and humidity are at comfortable levels, the economizer will give your HVAC system a break and bring in outside air instead to cool your facility. **An economizer** can reduce cooling loads by up to 30% as part of a well-designed system.

Upgrading to energy efficient equipment can significantly reduce cooling costs and improve overall efficiency. Consider the following options:

- **ENERGY STAR®-certified Equipment:** Opt for ENERGY STAR-labeled HVAC units, fans and other cooling equipment. These products meet strict energy efficiency guidelines, ensuring substantial energy savings in the long run.
- **Variable Speed Drives (VSDs):** Replace constant-speed motors with VSDs where possible. VSDs adjust the motor speed based on cooling demand, resulting in energy savings and extended equipment lifespan.

5. Utilize Demand Control Ventilation

According to the EPA, buildings like yours are often over-ventilated by as much as **six times what is required.**

Demand control ventilation (DCV) uses CO2 sensors to estimate the occupancy of spaces within a building and adjusts the outside air damper to allow for more or less outside air. The CO2 sensors monitor temperature, occupancy and other environmental factors. This data can help you identify trends, optimize cooling settings and detect anomalies that may indicate energy wastage.

DCV can achieve, on average, nearly **18% energy savings**. Facilities that save the most from implementing DCV include those with long operating hours and widely varying occupancy levels.

peco℠
AN EXELON COMPANY

Here's a bonus step for you:

Implement Advanced Building Management Systems

Data Analytics, Building Automation and Advanced Building Management Systems
These systems can regulate temperature, airflow, and other factors based on real-time data, resulting in precise and efficient control. Also, leveraging data analytics and building automation systems can provide real-time insights and automation capabilities to optimize efficiency.

By implementing these five strategies, you can enhance your building's cooling and ventilation efficiency and ensure a comfortable working environment while minimizing energy waste and reducing costs.

Prioritizing energy efficiency also contributes to sustainability goals, positioning your organization as an environmentally responsible leader.

Make Upgrades Now, Feel Cooler Later

Spring into these smart and strategic energy-saving measures and empower your business to stay cool, comfortable and sustainable, even during the hottest summer months.

▶ Visit **peco.com/business** to learn more about energy efficient savings and incentives from PECO Ways to Save that can make upgrades and saving energy more attainable than ever.

peco℠
AN EXELON COMPANY