



AGPOM

GREEN PROPERTY BEHAVIORAL PLAN

RETAIL SHOPPING BUILDINGS



AGPOM

THE ASSOCIATION OF GREEN
PROPERTY OWNERS AND MANAGERS

www.agpom.org



Getting Started



Improving sustainable behaviors often begins with a green property assessment. Accurate information about the condition of facilities, building systems and existing behaviors forms the foundation for ensuring maximum benefit from your new green building initiatives. A property assessment helps organizations identify the best opportunities for enhancing the sustainability of existing buildings and should contemplate:

-  Energy Efficiency
-  Water Conservation
-  Indoor Air Quality
-  Site Sustainability
-  General Business Practices

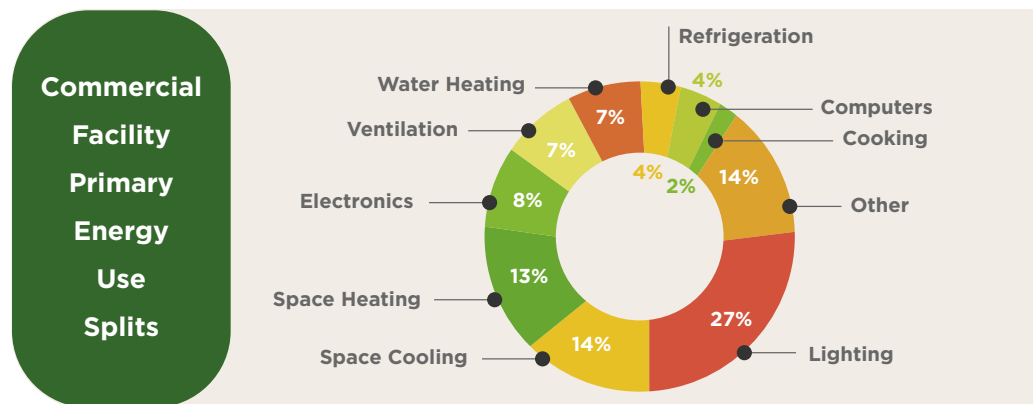
For interested members, AGPOM can recommend tools and/or third-party consultants for conducting effective property assessments.

The balance of this plan outlines practical behavioral initiatives available to retail shopping buildings for reducing their expenses and improving their indoor working environment. For ease of use, this plan is segregated into the general topics listed above. Compliance with the plan suggestions will qualify members for AGPOM Level II membership and all the benefits found therein as described at www.agpom.org.

Energy Efficiency

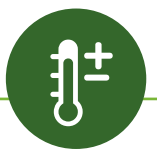
Retail shopping buildings account for 18% of the total energy consumed in the United States. Implementing energy efficiency measures helps companies reduce costs and stay competitive. A well-run energy program can reduce energy costs by 5% to 25% annually. Organizations within the same industry can often differ in energy performance. According to EPA research, high performers adopt a structured approach to energy management. They establish policies and procedures for long-term results, have senior management's support and adopt a philosophy of continuous improvement. It is these companies that are achieving the most cost savings in the long run.

The primary drivers of energy costs are lighting, heating and cooling. The chart below outlines the energy use splits in the United States as of 2008. A sound energy efficiency plan will target the top drivers of energy use.



Source: 2008 EIA Buildings Energy Data Book

Heating and Cooling



For retail shopping buildings, saving energy through heating and cooling behavior requires participation from both building management and tenants. The following practices should be followed for common space systems, and recommended for individual unit systems.

- Adopt a preventative maintenance policy for your heating, venting and air conditioning (HVAC) equipment and systems. It should outline that you will regularly:
 - Change or clean all air filters, preferably every month.
 - Clean all heat exchanger surfaces, water and refrigerant coils.

- Control the heating, ventilation and air conditioning (HVAC) system to use only the heating and cooling necessary based on occupancy and temperature.
- Keep air vents clear of paper, files and retail shopping supplies. It takes as much as 25% more energy to pump air into a room if the vents are blocked.
- Effectively manage thermostats: The recommendation from the U.S. Department of Energy is to “set temperature as low as is comfortable in the winter and as high as is comfortable in the summer”. In winter, target an average thermostat setting of 67 degrees for public areas and retail offices. In summer, manage thermostats to an average setting of 74 degrees.
- Keep window coverings closed in unoccupied spaces to combat extreme hot and cold temperatures.
- Check weather stripping and replace any worn or missing pieces to stop air-infiltration.

Lighting



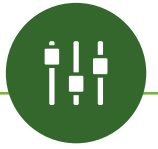
The average retail shopping building uses 40% of its electrical energy costs for lighting. Simple behavioral changes can result in direct reductions to electricity expense.

- When possible, replace any traditional, incandescent light bulbs with high-efficiency, compact fluorescent light bulbs (CFLs) or LED bulbs. Both LED and CFLs use 65-75% less energy than regular incandescent light bulbs. Although these bulbs cost more than regular incandescent bulbs, they last more than 10 times longer and can save you more than \$77 off your energy bill during the life of the bulb. They also create 75% less heat, which reduces the risk of fire at your building.
- Turn off lights when not in use. Ensure outdoor lighting, if any, is off during daytime. Encourage tenants to turn off the lights when not in use.
- If present, open window coverings and direct sunlight to the ceiling to make use of the resulting diffused lighting. Rely on natural daylight in common areas for as much of each day as possible.
- Consider installing automatic occupant sensors to turn off lighting and electronics.

Note: Most fluorescent lamps are considered “Universal Waste” under federal regulations and must be recycled or disposed of properly. Rules have been developed to streamline the environmental regulations for these wastes and reduce the regulatory burden for businesses that generate these wastes. For steps to managing your Universal Waste Lamps in an environmentally safe manner, please visit EPA's guide to establishing a recycling program for mercury-containing light bulbs.



Operations



- Train your building staff and tenants to conserve. Saving energy could be as simple as closing a loading dock door when not actively being used or turning off computers. These items add up and make a material difference. For restaurant operations please see our Restaurant Green Property Plan on our website.
- Regularly monitor and report on energy performance to management, stakeholders, and tenants in order to maintain efficiency and raise awareness.

Water Conservation

Building Maintenance



- Repair all leaks right away. Without repairs, water leaks can result in up to \$700 in excessive water costs over the span of one year. When you notice a leak, be sure to repair it or call a professional right away to avoid an ocean of unnecessary water waste costs.
- Repair dripping faucets and continuously running or leaking toilets.
- Reduce the water used in toilet flushing by either adjusting the vacuum flush mechanism or installing toilet tank displacement devices (dams, bottles, or bags, cistern volume adjusters (CVAs)).
- As appliances or fixtures wear out, replace them with water-saving models.
- Reduce the load on air conditioning units by shutting air conditioning off when and where it is not needed.
- Install high pressure/low flow faucet aerators on all sinks.
- Review water meter weekly to check success of water conservation efforts. Assign person to monitor water use and waste.
- Post signs encouraging water conservation in employee and public restrooms.

Exterior Areas



Having attractive landscaping not only makes your retail property more appealing to shoppers, it also helps improve air quality. Using smart landscaping practices keeps your property looking its best and can also lead to significant savings. EPA's GreenScape website promotes a set of landscaping practices that embrace the resource conservation principles of "reduce, reuse, recycle, and rebuy." Applying these principals can improve the health and appearance of your large-scale landscape while protecting and preserving natural resources.

Experts estimate that as much as 50 percent of outdoor water use is wasted due to overwatering caused by inefficiencies in irrigation methods and systems. Irrigation control technologies can significantly reduce overwatering and utility costs by applying water only when plants need it.



Use drought resistant plants



Use a mulching mower that leaves grass clippings spread out across the lawn.



Set mower blades higher.



Adjust watering



Water only when necessary.



Water during the cooler parts of the day.



Tailor to plant types and local conditions.



Avoid runoff and make sure sprinklers cover just the lawn or garden, not sidewalks, driveways, or gutters



Reuse water in ornamental water features.



Fix leaks in irrigation systems.



Hire WaterSense landscape irrigation professional partners.



Avoid plant fertilizing and pruning that would stimulate excessive growth.



Indoor Air Quality and Environment




Indoor Air Quality






The EPA ranks indoor air pollution among the top five environmental risks to public health. Indoor air pollution can come from many sources, including off-gassing from building materials, finishes and furnishings; cleaning products and solvents; cigarette smoke; combustion from fuel-fired appliances and equipment; water leaks and moisture intrusion or accumulation; outdoor air pollution; pests such as cockroaches; pesticides; and—ironically—even some types of “air fresheners.” Indoor pollution problems are also often caused by or exacerbated by inadequate ventilation. Indoor pollutants include volatile organic compounds (VOCs) such as formaldehyde, benzene, xylene and toluene; carbon monoxide; dust and particulates; and mold and mildew. Some pollutants produce noxious odors, whereas others have no odor.

Preventing IAQ problems by proper source reduction (i.e., pollution prevention) and by keeping all building materials clean and dry are the best ways to protect the health and well-being of the building’s occupants and in the process increase their productivity (employees) and satisfaction (tenants).

The following are some basic strategies for safeguarding indoor air quality:




-  Selection of less-toxic materials and products: Use nontoxic or low-toxic cleaning products; zero-VOC or low-VOC paints, finishes, adhesives, caulks and carpet; and formaldehyde-free wood products.
-  Moisture control: If conditions are very humid, run fans or dehumidifiers. Fix water leaks and intrusions, mop up standing water and immediately dry any building materials that get wet to prevent mold, mildew and bacterial growth. Make sure that heating, ventilating and air conditioning (HVAC) components are not exposed to standing water or leaks, as biocontaminants can spread through the building through HVAC ducts.
-  Mold control: If you see discoloration (mold can be white, orange, green, brown or black) on surfaces; observe cracked or discolored grout, drywall or other building materials; and/or smell a musty odor, this may indicate a mold or mildew problem. Disinfect and dry all moldy areas immediately—mold grows and spreads quickly. If porous building materials are moldy (e.g., drywall, carpeting), remove them.

-  Carpet cleaning: Carpet acts as a haven for dirt, bacteria and mold. Vacuum carpets regularly, preferably using a vacuum with a high-efficiency particulate air (HEPA) filter. When cleaning carpets, use a non-chemical, low-water process, and use fans afterward to dry the carpeting quickly. Also, carpets should never be installed in kitchens, bathrooms, laundry rooms or other high-moisture areas.
-  Ventilation system: Regularly check and maintain the building's ventilation system to make sure it is working properly and meeting airflow specifications to deliver enough outside air to all areas of the building. Any toxic chemical products and supplies should be stored in a room that has negative pressure and that is vented directly to the outside. All gas appliances (including furnace, clothes dryers, water heaters, etc.) must also be properly ventilated to the outside.
-  Natural ventilation: Open windows or doors from time to time to get some outside air flowing through the building. When doing repairs, cleaning or installations that might involve any noxious chemicals or off-gassing (including painting, gluing or applying finishes) or bringing new furniture into the building, open nearby windows and/or doors during the work and leave them open for at least several hours after the work is complete.

Green Cleaning



Choosing less hazardous cleaning products that have positive environmental attributes and taking steps to reduce exposure can minimize harmful impacts to custodial workers and building occupants, improves indoor air quality, and reduces water and ambient air pollution, while also ensuring the effectiveness of cleaning in removing biological and other contaminants from the building's interior.

-  Utilize "Eco" friendly cleaning products and detergents for cleaning.
-  Mix cleaning chemicals correctly. Hundreds of gallons of concentrated cleaning chemicals are wasted every day because they are not properly diluted. Train staff to read the labels and mix appropriately to decrease waste.
-  Use microfiber pads for cleaning rather than paper or other disposable products. Cloth cleaning rags can be laundered and reused. Paper towels usually just end up in a landfill. Use toxic-free chemicals and cleaning systems on your swimming pool (if any). When considering different pool cleaning systems, it helps to look for those certified by the US Environmental Protection Agency (EPA), the Water Quality Association, or the National Sanitation Foundation.



Site Sustainability



- 🍃 Educate tenants about your sustainability practices and urge them to participate in the AGPOM Green Plan:
 - 🍃 Post the green plan in a public area or utilize tenant communication to share reminders on green initiatives.
- 🍃 Ask tenants for feedback on green practices and suggestions.
- 🍃 Offer recycling and composting in the public areas with signs that have both words and images of common items.
- 🍃 Provide all tenants with waste reduction information and encourage purchasing with less packaging.
- 🍃 Use 100% post-consumer recycled paper toilet and facial tissue in public areas.
- 🍃 Recycle or donate furniture and/or fixtures that are left by tenants that move out.
- 🍃 Conduct a waste audit once per year and use it as a training opportunity for staff and interested tenants.
- 🍃 Recycle used batteries and electronics.

General Business Practices



- 🍃 Designate a “responsible party” to document and promote Green efforts within your property. This individual or team should work with other staff to implement the guidelines listed here; keep a monthly log; and record suggestions, actions and progress related to Going Green.
- 🍃 Educate and encourage employees to be energy-conscious and to offer ideas and suggestions about how energy can be saved. Employee buy-in and involvement can make or break your company’s efforts to conserve energy. Build staff trainings into new-hire orientation and monthly staff meetings. Utilize AGPOM’s **online Risk Management Center Training Track** to keep track of and schedule all required employee trainings.
- 🍃 Implement a tracking system such as Energy Star’s free Portfolio Manager to assist with record keeping and reporting of energy savings. Use captured data to report real statistics to encourage further participation to staff and tenants.
- 🍃 Support vendors and business partners who have Green policies in place.

Equipment Use



- Use equipment power management features to reduce electricity use (average savings: \$50-\$75 per year per machine). These features are now standard with operating systems. Use the “control panel” to put computers into a low-power “sleep mode” after a period of inactivity. Simply touching the mouse or keyboard “wakes” the computer and monitor in seconds. AGPOM recommends setting for sleep mode or hibernate after 30 to 60 minutes of inactivity. To save even more, set monitors to enter sleep mode after 5 to 20 minutes of inactivity. The lower the setting, the more energy and money you save.
- When purchasing new equipment and appliances, purchase Energy Star-qualified products whenever possible. In 2010, American saved almost 5% of the nation’s annual electricity demand and \$14 billion on their energy bills through the Energy Star program. Use the Energy Star store locator to find the nearest retailer:
www.energystar.gov/index.cfm?fuseaction=store.store_locator.
- Turn off computers, monitors, printers and copiers during non-business hours.
- Use laptop computers where possible. They consume 90% less energy than desktop computers.
- Encourage staff and tenants to unplug cell phone battery chargers when fully charged or disconnected from the charger.

Documentation & Training



Communicating your sustainability practices is almost as important as actually doing them! Take every opportunity you have to educate your tenants, future tenants, vendors and employees about your environmental commitment. Be sure to also include your AGPOM Member Seal on all printed and online messaging.

- Document this Green Plan by making it a part of your employee manual or written company policy. Make all employees familiar with your commitment. Maintain a written copy of this plan on file for employee viewing.
- Post your property’s environmental practices reminders in all public areas, especially near waste collection stations.
- Publish environmental practices and tips on your property website.

- Make green tips a part of your tenant/employee communications and social media posts.
- Offer green practices trainings for tenants when possible.
- Build staff trainings into new-hire orientation and monthly staff meetings.

Help Tenants Go Green!



Supply chain

Managing the supply chain is critically important because research indicates that between 80 and 90 percent of the retailer's total footprint comes from the products that are carried.

- Encourage tenants to offer paperless correspondence and receipts to customers via e-mail instead of printing invoices or receipts.
- Encourage their customers to bring their own bag or "skip the bag".
- Offer re-useable tote bags for sale that are made sustainably with recycled content.
- When providing disposable bags, encourage re-use through verbal mention or messaging printed on the bags.
- Size bags appropriately for the purchase size. This helps to save excess waste.

Procurement policies

Encourage them to establish a procurement policy that contains specific environmental standards.

Green products

In addition to greening their supply chain consider encouraging them to carry green products for interested consumers. These can include items made of natural and recycled materials, plus items certified as Fair Trade.

Transportation

Encourage tenants to look into improved logistics of their deliveries and fleet transportation to reduce carbon emissions.

Customer education and marketing

Encourage retailers to communicate their environmental policies and information to customers through signage in the store, on their website and social media. Many find this a valuable way to develop and promote their brand and build customer loyalty.

