

Green Office Guidance Document for Emory Alumni and Community Members

February 2025





Emory's sustainability goals rely on the commitment of its thousands of employees to choose sustainable behaviors while at work and getting around campus. Green Offices at Emory is a voluntary program designed by the Office of Sustainability Initiatives (OSI) to assist employees in improving the sustainability of Emory's workspaces. Here is a short introduction to the program documentary: Green Office at Emory Documentary.

In 2024, at the encouragement of the Advancement and Alumni Engagement, one of our certified Emory Green Offices, OSI has created an alumni version of Green Office Guidance so that you can carry your sustainable practices throughout the world once you leave campus. Please reach out to greenoffices@emory.edu if you have any questions.

Thank you so much for your continuing support for sustainability!

How To Use This Guide

This guide serves as a checklist that can help you consider the variety of actions you can take to create a more sustainable working environment. Designed with office work in mind, this guide can be used in a variety of environments to help you reduce your environmental impact, increase health and productivity, and accelerate our transition to a sustainable world!

Simply review each item and determine whether it's feasible for your workplace to implement, and once complete, check it off! We encourage you to revisit this checklist annually to explore new opportunities that have become feasible, or to restore practices that need renewed attention.

Proud of your achievements? Send us a message at <u>greenoffices@emory.edu</u> sharing your story (pictures especially welcomed) and we'll promote it!

Guidance Document 2024-2025

#	Item Description	Justification
1.0	Energy Efficiency &	Conservation
	In our office, we	
1.1	Turn off the lights in unoccupied rooms and at the end of each day.	According to the most recent Commercial Buildings Energy Consumption Survey (CBECS), 17% of all electricity consumed in U.S. commercial buildings is for lighting, making it the largest end use of electricity besides the Other category. (Trends in Lighting in Commercial Buildings)
1.2	Unplug office electronics before weekends and during long periods of non-use.	Plug loads account for an average of 9% but as much as 28% of the electricity consumed in office buildings depends upon the nature of the work. Plug load is anything that draws power from an electrical outlet. Many devices continue drawing electricity from the outlet even when they are turned off. The best energy conservation practice is to unplug electrical devices when they are not in use. (NREL Plug Load Behavior Change Demonstration Project). Additionally many electric utilities provide rebates for "smart strips" that sense when a device is not being used and turns the power off.
1.3	Employ power management sleep or hibernate strategies for computers and monitors.	Computer power management has multiple benefits to energy savings, security, and reducing office cooling loads, and does not harm the computer. (How to Save Idle Energy in Computer Servers ENERGY STAR) A typical 17" CRT computer monitor usually uses 35-80 Watts, but a sleeping monitor uses only 0-15 Watts. (Power Management Statistics)
1.4	Eliminate the use of single-use printers and utilize network printers and copiers.	The typical desktop inkjet printer uses at least 10 watts of energy while idling alone. Multiple desktop printers powered on use more energy than one networked printer and require more energy to counterbalance the printers' heat output with building climate controls. (Cornell University Computer Energy Usage Facts)
1.5	Use as much natural lighting as possible instead of overhead lighting.	Positive impact on mood, alertness and metabolism. Natural light is also associated with lower fatigue, reduced eyestrain, and increased productivity. A study conducted on workers who were exposed to natural light in the day versus those who aren't showed that they were also able to get more sleep at night. (NREL Effects of Natural Light on Building Occupants) ("Daylight for health and efficiency: A new career for an old friend." By Çakır, Ahmet E.) ("Beyond the Bulbs: In Praise of Natural Light" by Brian Libby)
1.6	Install motion detectors for overhead lights and common areas (restrooms, conference rooms).	In the university's underground parking lots, a daily electricity savings of 39.5 Wh/m^2 of lights was achieved by having motion detectors, with a savings rate of 77.6%. In the lecture rooms, these values were 25.0 Wh/m^2 and 32.4%, respectively. (Energy Saving of a University Building Using a Motion Detection Sensor and Room Management System)
1.7	Send an e-mail to staff before	Feel free to consult this Green Office Guidance document for the checklist.

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	holidays and breaks containing an	
	energy saving	
	checklist.	
1.8	Consult the	Light emitting diodes (LEDs) use about 80% less energy than
	building manager to	incandescent light bulbs, and can last 25 times longer. More
	select energy	information on the comparison of these two can be found here.
	efficient options	
	when light fixtures	
	or bulbs need to be	
	replaced.	
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	efficient options	
	when light fixtures	
	or bulbs need to be	
	replaced.	
1.10	Discourage and	Automatic doors often stay open longer with each use than
	minimize the use of	manual doors, letting more conditioned air out of the building and
	automatic door	unconditioned air into the building. Additionally, automatic doors
	opening buttons,	use energy while manual doors do not. (U.S. Department of
	unless mobility	Energy: Modeling of Air Infiltration through Door Openings)
	aballangaa ayiat	
2.0	challenges exist.	
2.0	Waste	
	Waste In our office, we	The use of duplex printing has the potential of saving about 50% of
2.0 2.1	Waste In our office, we Set the printers and	The use of duplex printing has the potential of saving about 50% of monetary costs and 50% of resources used to produce paper.
	Waste In our office, we Set the printers and copiers to default	monetary costs and 50% of resources used to produce paper,
	Waste In our office, we Set the printers and	monetary costs and 50% of resources used to produce paper, including water, trees, and energy. (EPA Reducing Paper and
	Waste In our office, we Set the printers and copiers to default to double-sided	monetary costs and 50% of resources used to produce paper,
	Waste In our office, we Set the printers and copiers to default to double-sided and black and	monetary costs and 50% of resources used to produce paper, including water, trees, and energy. (EPA Reducing Paper and
2.1	Waste In our office, we Set the printers and copiers to default to double-sided and black and white.	monetary costs and 50% of resources used to produce paper, including water, trees, and energy. (EPA Reducing Paper and Printer Ink Usage)
2.1	Waste In our office, we Set the printers and copiers to default to double-sided and black and white. Use bulk coffee	monetary costs and 50% of resources used to produce paper, including water, trees, and energy. (EPA Reducing Paper and Printer Ink Usage) Roar brand coffee machines produce a paper pouch containing grinds or tea leaf, which can be placed directly into a compost bin. Conversely, Keurig and other brand machines produce a plastic
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	copies of	
2.4	documents. Do not provide disposable dishes, cups and utensils to employees. If dishes are provided, ensure they are reusable.	Reusable dishware reduces the number of disposable items that are put into landfills. In 2011, 1.3 million tons of paper plates and cups and 1 million tons of plastic plates and cups were found in the municipal waste stream. This has increased from 120,000 tons in 1960, a 5.5% increase in the amount of disposable tableware comprising the municipal solid waste. Plastic bottles take approximately 450 years to decompose in a landfill, while foamed plastic cups (Styrofoam) take about 50 years to decompose. Much of our garbage ends up in oceans, and as a result the small bits of plastic that are broken down are toxins that are found in animals or on shorelines where humans can come in direct contact with them (How Long Does it Take for Plastic to Biodegrade?" by: William Harris)
2.5	Provide tap water to employees for filling reusable bottles and pitchers, in the form of retrofitted water fountains, hydration stations, or kitchen sinks.	Please see Justification for # 2.4 above.
2.6	Send all unused office furniture and electronics still in good condition to reuse store.	In 2012, Americans put 50 million tons of durable goods (e.g. furniture, small appliances, consumer electronics, etc.) in municipal solid waste. That waste stream has grown significantly since 1960, when Americans trashed only 9 million tons of durable goods. A N.Y. Times article discusses this issue, "The E.P.A. estimates that 2.6 million tons of electronic waste were dropped into landfills in 2007 Once buried, the waste leaches poisons and heavy metals into soil and groundwater." ("A Green Way to Dump Low-Tech Electronics") (EPA: National Overview: Facts and Figures on Materials, Wastes and Recycling)
2.7	Use an electronic file system to reduce paper waste and purchases.	Check EPA suggestions (Reducing Paper and Printer Ink Usage)
2.8	Use reusable inter- office instead of regular envelopes whenever possible and promote the redistribution of inter-office envelopes.	Check EPA suggestions (Reducing Paper and Printer Ink Usage)

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2.9	Offer electronic	Check EPA suggestions (<u>Reducing Paper and Printer Ink Usage</u>)
	versions of our	
	newsletter (if	
	published) that	
	readers can select	
	instead of the paper	
	version.	
0.40		
2.10	Subscribe to	Check EPA suggestions (Reducing Paper and Printer Ink Usage)
	electronic	
	publications rather	
	than print	
	•	
	subscriptions most	
	of the time.	
2.11	Reuse packing	Containers and packaging make up a major portion of municipal
	materials instead of	solid waste (MSW), amounting to 82.2 million tons of generation in
		· · · ·
	purchasing new.	2018 (28.1 percent of total generation). (EPA: Containers and
		Packaging: Product-Specific Data)
2.12	Decrease	
	electronic waste by	
	using computers	
	and electronics for	
	their full life span	
	before replacing.	
2.0	Durahasing	
3.0	Purchasing	
3.0	In our office, we	
	In our office, we	The environmental effects of batteries include resource depletion.
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3.1	In our office, we Use rechargeable batteries.	global warming, ecological toxicity, and human health impacts. Reusable batteries decrease these harmful impacts. (EPA: Lithium-ion Batteries for Electric Vehicles)
	In our office, we Use rechargeable batteries. Purchase paper	global warming, ecological toxicity, and human health impacts. Reusable batteries decrease these harmful impacts. (EPA: Lithium-ion Batteries for Electric Vehicles) Recycling our used products only makes economic sense if we
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3.1 3.2 3.3	In our office, we Use rechargeable batteries. Purchase paper towels and napkins made from recycled content. Purchase and use only 100% post-consumer-waste recycled or tree-free printer paper. Purchase an appropriate amount of food for meetings and establish a plan to donate leftovers.	global warming, ecological toxicity, and human health impacts. Reusable batteries decrease these harmful impacts. (EPA: Lithium-ion Batteries for Electric Vehicles) Recycling our used products only makes economic sense if we buy the products made from these materials, creating an incentive for manufacturers to make them. This is what is known as the circular economy. Please see Justification for # 3.2 above. The EPA estimates that in 2018, about 81 percent of the wasted food we generated—or about 20.3 million tons ended up in landfills or combustion facilities. By managing food sustainably and reducing waste, we can help businesses and consumers save money, provide a bridge in our communities for those who do not have enough to eat, and conserve resources for future generations.
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	Styrofoom for ony	anvironmental and health affects. Asserting to the Environmental
	Styrofoam for any purpose	environmental and health effects. According to the Environmental Production Agency, Styrofoam is the fifth largest source of hazardous waste in the United States. (Polystyrene as Hazardous Household Waste)
3.6	Use remanufactured ink and toner cartridges.	EPEAT: Helps purchasers evaluate, compare and select electronic products based on their environmental attributes. Emory gives preference to products meeting the EPEAT guidelines whenever possible. Energy Star: Energy Star is the U.S. Environmental Protection Agency's and U.S. Department of Energy's guide to environmentally friendly products and energy-saving calculator. Energy Star-qualified products use less energy, save money, and help protect the environment.
3.7	Purchase Energy Star and EPEAT certified appliances and machines, when available.	EPEAT: Helps purchasers evaluate, compare and select electronic products based on their environmental attributes. Emory gives preference to products meeting the EPEAT guidelines whenever possible. Energy Star: Energy Star is the U.S. Environmental Protection Agency's and U.S. Department of Energy's guide to environmentally friendly products and energy-saving calculator. Energy Star-qualified products use less energy, save money, and help protect the environment.
3.8	Purchase organic and/or fair-trade coffee or tea.	Fair Trade certification demonstrates the existence of a trading partnership that seeks to change the rules and practice of conventional international trade by guaranteeing higher returns to producers—especially in the Global South—as well as more transparent trade relations, improved environmental practices, and opportunities for local economic development projects. (The Fair-Trade Movement) (Fair Trade Certification) (Emory's Sustainable Food Guidelines)
3.9	Use wooden coffee stirs instead of plastic coffee stirs.	Production and disposal of wooden coffee stirs have smaller impact on environment. Wood uses more resources, but pollutes much less, than plastic. (Minimizing environmental impacts of timber products through the production process "From Sawmill to Final Products")
3.10	Check to see if your workplace has surplus office furniture and equipment, such as chairs, desks, file cabinets, etc. before purchasing them new.	In 2009, U.S. EPA reported that furniture accounted for 9.8 million tons (4.1%) of household waste. Furniture is the least-recycled household item. (PlanetSave)
3.11	Choose furniture that is made using recycled materials,	There are a variety of chemical contaminants found in office furniture. Volatile organic compounds (VOCs) are common chemical contaminants found in office and home environments

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	is environmentally friendly, PVC free, and/or is certified	that easily evaporate into the air. Reducing exposure to chemicals in the workplace is a preventative action that can lead to improved outcomes for both worker health and to the environment. (CDC
	by BIFMA if new	Indoor Air Quality)
	furniture purchases	
	are necessary.	
3.12	Regularly use	Americans use and dispose of 100 billion plastic shopping bags
	reusable bags	each year, and at least 12 million barrels of oil are used per year in
	instead of plastic	the manufacture of those plastic grocery bags. (New York Times "A
	bags.	Bag Problem Blossoms")
4.0	Meetings & Events	
	In our office, we	
4.1	Consult Emory	OSI sustainable events.
	OSI's sustainable	
	event guidance.	
4.2	Provide tap or	It is estimated that U.S. consumers throw away 60 million plastic
	filtered water in	bottles per day, requiring more than 15 million barrels of oil
	reusable pitchers with reusable,	annually, enough to fuel 100,000 cars for a year. (<u>Plastic Water</u> <u>Bottles Should No Longer be a Wasted Resource</u>)
	recyclable, or	Water bottles contribute to the "great Pacific garbage patch" and
	compostable cups.	other litter locations across the globe (National Geographic on the
	Compostable cups.	Great Pacific Garbage Patch)
4.3	Offer and/or utilize	Offering a virtual presence has the potential to decrease the
4.0	a virtual presence	transportation impact as well as the energy and resource intensity
	to increase	of your meeting.
	accessibility and	
	decrease	
	transportation	
	needs.	
4.4	Minimize paper use	The EPA estimates that recycling 1 ton of paper saves 17 trees and
	at meetings by	7,000 gallons of water (SF Gate- Recycling Instead of Landfills).
	distributing	
	agendas and	
	supporting	
	documents	
	electronically most	
4.5	of the time.	
4.5	Avoid driving to on-	Public transportation can include buses, trains, trams, trolleys,
	campus meetings	ferries, paratransit, or rapid public transportation systems.
	by walking or using public transit, and	Investments in public transportation have potential traffic safety, air quality, active transportation, and accessibility benefits, thus
	carpool or use an	improving associated personal health outcomes. (US Department
	alternative	of Transportation)
	commute option	or transportation)
	when traveling to	
	meetings.	
L		

	T	
4.7	Utilize and encourage walking meetings as a healthy alternative to standard meeting formats. Offer short "active" breaks during meetings to increase productivity and promote health and	Walking boosts creativity and productivity; getting away from the office gives you a break from electronics and minimizes distractions; gentle physical activity is good for your health, decreases stress, and elevates mood; a shared activity between colleagues strengthens working relationships and builds camaraderie. (Thriving Together Series: How Walking Meetings Can Boost Your Social Well-Being and Productivity) Increasing sedentary work has been associated with greater cardiovascular and metabolic risk, as well as premature mortality. Interrupting the sedentary workday with health-promoting work breaks can counter these negative health effects. (Taylor WC, King KE, Shegog R, Paxton RJ, Evans-Hudnall GL, Rempel DM, Chen V, Yancey AK. Booster Breaks in the workplace: participants'
	wellness.	perspectives on health-promoting work breaks. Health Educ Res.
		2013 Jun;28(3):414-25. doi: 10.1093/her/cyt001. Epub 2013 Mar 6.
	0-6-01114066-	PMID: 23466367; PMCID: PMC3649210.)
5.0	Safe & Healthy Office In our office, we	e Environment
5.1	Purchase eco-	Using eco-friendly cleaners reduces exposure to toxic chemicals,
	friendly and	may reduce incidence of asthma attacks caused by dust and
	fragrance-free	chemical allergens, and improves indoor air quality by reducing
	cleaning supplies	airborne dust and chemical gases. (NY Green Cleaning Program)
	and dish soap for	
	our break room and	
	desk area, if	
5.2	applicable.	"Low light requiring houseplants, along with activated earlier
5.2	Provide plants that naturally purify the	"Low-light-requiring houseplants, along with activated carbon plant filters, have demonstrated the potential for improving indoor
	air.	air quality by removing trace organic pollutants from the air in
	an.	energy-efficient buildings. This plant system is one of the most
		promising means of alleviating the sick building syndrome
		associated with many new, energy- efficient buildings." (NASA:
		Interior Landscape Plants for Indoor Air Pollution Abatement)
5.3	Are committed to	Spending at least 30 minutes outdoors every day to get fresh air
	having regular staff	and higher vitamin D production also boosts energy and mood.
	social events, such	According to one study, "being outside in nature for just 20
	as lunch gatherings	minutes in a day was enough to significantly boost vitality levels."
	and walks in parks.	The following links provide more evidence and discuss the
		importance of getting "fresh", outdoor air. (<u>University of</u> Rochester: Spending Time in Nature Makes People More Alive,
		Study Shows)
5.4	Make office	One study found a 28% reduction in absenteeism due to illness,
	employees aware	which directly affects productivity by allowing for more efficient
	of the health and	and able work days for employees. (Wellness and Beyond:
	wellness services	Employers Examine Ways to Improve Employee Health and
	available to them.	Productivity and Reduce Costs)

5.5	Promote and encourage physical activity throughout the workday (i.e. stretching, desk exercises or walking breaks).	A worksite wellness program that includes a physical activity component can help maintain a healthier workforce. A healthier workforce can benefit from reduced direct costs associated with health care expenses. The worksite wellness program also has potential to increase employees' productivity, reduce absenteeism, and increase morale. Additionally, these programs are often seen as a central component of an attractive employee compensation and benefits package that can be used as a recruitment and retention tool to attract and keep high quality employees. Worksites can encourage physical activity through a multicomponent approach of offering management support, physical access to opportunities, policies, and social support programs. (Worksite Physical Activity)
6.0	Communications &	Participation
	In our office, we	
6.1	Inform and ask office members to agree to follow the applicable actions on this checklist.	We recommend acquiring agreement from at least 75% of office occupants for maximum success.
6.2	Host a sustainability info session covering waste, energy, health and/or wellbeing at an office wide lunch or meeting.	
6.3	Promote and provide resources for alternative transportation options.	
6.4	Follow Emory OSI's	
	<u>LinkedIn page</u> for	
= 0	more resources.	
7.0	Innovation Ideas In our office, we	
7.1		e ideas from our employees for office-wide sustainability initiatives.
	At Emory, certified Gr - Advancement space to facil - The Department herbal teas by - Michael C. Ca	reen Offices have several innovative practices: t & Alumni Engagement installed a hydration station in their office itate the habit of using reusable water bottles. ent of German Studies decorated the office and produced their own y planting lemon balm, lavender, and hibiscus plants. arlos Museum implemented motion-detected sensors for overhead mon staff areas such as bathrooms, conference rooms, and

- Robert W. Woodruff Library changed their tote bags offered to library patrons from made of polypropylene to those made of cotton.
- Rose Library purchased glasses and replaced trash cans to reduce the landfill waste as well as promote OSI's sustainable event certification.
- Schwartz Center for the Performing Arts started a new paperless ticketing system to reduce waste.

As part of the Emory community, we appreciate how important sustainability is to you and hope you find this guide a helpful start! Please reach out to greenoffices@emory.edu with any questions or additional ways we might support your efforts!