



Reducing Emissions from Office Buildings

GHG emissions category

For organisations renting their office: Scope 3, Category 8: Upstream Leased Assets

For organisations owning their office: Scope 1 & 2

Introduction

This guide focuses on steps to lower office building emissions, including those from lighting, heating, cooling, waste, paper, printing, and appliances.

Around 40% of global energy-related emissions come from buildings, and 60% of office building emissions come from energy use, making it a priority to address. Reducing energy and material use also often delivers long-term financial benefits as well as environmental advantages.

Solutions to significantly cut office emissions are available and often easy to implement, though if you don't own your building, you may need to talk to your landlord. For actions to reduce emissions in other areas, including IT equipment, services, commuting, food purchasing, and business travel, see our other guides.

Measure and Understand

Office building emissions can be divided into Scope 1, 2, and 3 categories. If you own a building with on-site power generation, it produces Scope 1 "direct emissions". When your office buys electricity, steam, heat, or cooling from utilities or municipal sources, the associated emissions are categorised as Scope 2 "indirect emissions". Offices also generate Scope 3 emissions from activities like waste and transportation.

If you own your office building, review your utility bills and use this to calculate your emissions, either through an online [calculator](#) or manually using emission factors. If you do not own the facility, contact the owner of the property to get information on the energy usage of your building. If you only have access to the total energy consumption of the building, you can calculate your share of the total building's energy consumption. E.g. if you are one out of four similar units in the building, your share of the building's total energy consumption would be 25%. If you do not know the energy mix from your office's energy consumption, reach out to the gas or electricity company and ask for the information.

Key Actions

Energy, Heating and Cooling

One of the most impactful actions to reduce office building emissions is switching to a renewable energy provider using 100% fossil-free energy. Consider also replacing gas boilers with low-carbon alternatives like heat pumps or solar thermal systems. Generating your own renewable energy, by installing solar panels for example, can lead to extra income by selling excess electricity back to the grid.

Save energy and money by turning off heating and cooling in unoccupied rooms, installing double or triple-glazed windows, and using smart thermostats that adapt to usage patterns that are set at appropriate temperatures. Installing effective insulation can reduce energy consumption by up to 40%. Encourage employees to close blinds or curtains when rooms are unoccupied to prevent heat build-up or loss.

Finally, optimising space utilisation is vital, as studies show that office spaces are unused over a third of the time. As well as energy savings, more efficient use of office space can bring down costs and deliver other benefits.

Lighting

LED light bulbs save energy, last longer, and reduce maintenance costs, making them an obvious choice in almost all situations. Installing automatic lighting controls, zone controls, daylight sensors, and presence detector lighting controls can also significantly reduce electricity use and costs. Make sure timers and sensors are in good working order and set according to occupancy times. Where possible, utilising natural light also helps in lowering energy consumption.

Waste

Waste offers an often overlooked and easily addressed opportunity to reduce emissions, save natural resources and reduce costs. Enable office recycling and encourage the use of reusable coffee mugs, glasses, plates, and silverware. Purchase compostable or high post-consumer waste content paper products, such as napkins and towels. Replace bottled water with tap filters to minimise plastic waste.

Cost Implications

Some actions related to lighting and cooling/heating will require an upfront investment, but most actions in this guide require little to investment, will lead to long term savings and can be implemented immediately.

Engage with Employees

Creating a “green team” with members from different departments can make implementing the actions above more manageable. Encourage employee engagement through campaigns or initiatives to support progress. Establishing a sustainability office policy can help guide these changes effectively.
