

General guidelines, maintenance

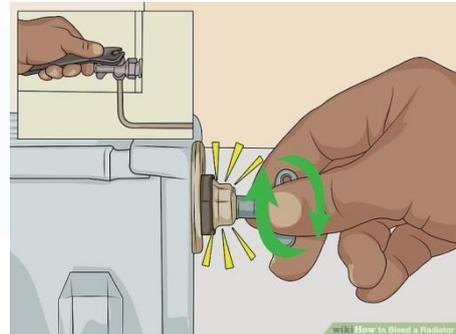
- Make sure that the HVAC system in your building is **regularly cleaned and serviced**.
- Clean the radiators or heating registers (and vents) from time to time.
- Continuously **monitor indoor temperature and humidity values**.
- Turn down the heating. The **ideal temperature in offices is 19-21°C in winter**.
- Inspect your windows and doors and identify possible **air leaks**.
- Keep the **doors closed** during the heating season.
- For **ventilation** open the windows wide but only for a short period of time (max. 5-10 mins).
- In winter keep your **curtains** open during the day, especially on the south side of the building, but close them for the night.

Just as office buildings themselves can be manifold, the type of heating installed, the means and extent of insulation in them also show great variance. One thing is for sure: heating, ventilation and air conditioning (HVAC) are responsible for the most significant share of total building energy consumption, generally around 40-60% in offices. So saving on heating is one of your best shots to cut back on overall energy consumption, don't miss it!



HERE ARE SOME IDEAS HOW YOU CAN DO IT:

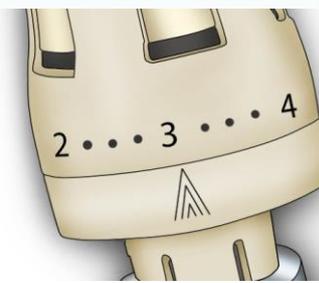
- Make sure that the **HVAC system in your building is regularly cleaned and serviced.**
- In case you have a **furnace, replace or clean its filters as recommended**, during winter check the filters every month. Dirty filters restrict airflow and so increase energy requirement!
- **Clean the radiators or heating registers and vents from time to time too.** If the radiator has a cover, remove it and clean inside as well. Excessive dust makes your heating system less efficient, gives off unpleasant smell and might also trigger allergic reactions.
- **Eliminate trapped air from hot-water radiators.** Air pockets prevent it from functioning properly and it doesn't only leave you cold but is also a waste of energy.
- **Continuously monitor indoors temperature and humidity values.** Use thermometers and hygrometers around the building, possibly in each floor and rooms facing all the four directions.
- **Turn down the heating.** The ideal temperature in offices is 19-21°C in winter. Decreasing the temperature by 1°C can mean as much as 5-10% savings in heating energy consumption.



- **Inspect your windows and doors and identify possible air leaks.** See if you can rattle them, check if you see light around the door frame. Also look for gaps around cables and pipes entering the room.
- **Keep the doors closed during the heating season.**
- Be more careful with airing the rooms. **Open the windows wide but only for a short period of time** (max. 5-10 min.). Avoid leaving the windows open for hours.
- **Use the curtains.** Keep them open and let the sunshine in during the day, especially on the south side of the building and close them for the night in every room.

What else can you do?

- **Do not place furniture near the radiators or cover them with boxes** and drapes as they might block much of the heat. If you have a forced air heating system in your building, don't cover the vents or heating registers.
- **Turn down the heating for the evenings, weekends and holidays.** – Turning it down by 2-3 °C can save you a considerable amount of energy, while posing little risk of comfort or moisture problems. If you have automatic temperature control in the building, then the so-called setback or programmable thermostat is the most convenient and most efficient way to decrease temperature in the empty office.
- **If you have thermostatic radiator valves, make sure you know how to set them correctly.** They sense the air temperature around them and turn the flow of hot water to the radiator on or off depending on the temperature above or below the set point. A 1 to 5 thermostatic radiator valve at setting 5 makes the radiator turn off when the adjacent air temperature is roughly 25°C, and at setting 1 it will turn the radiator off at around 15°C.
- Spaces such as **corridors, elevator halls, storage spaces** etc. **can be kept at a lower temperature than permanently occupied rooms.** It is recommended that heating is switched off in rooms which are never used. For hygienic reasons it is necessary to keep all rooms well ventilated, even those which are unoccupied.



DID YOU KNOW?

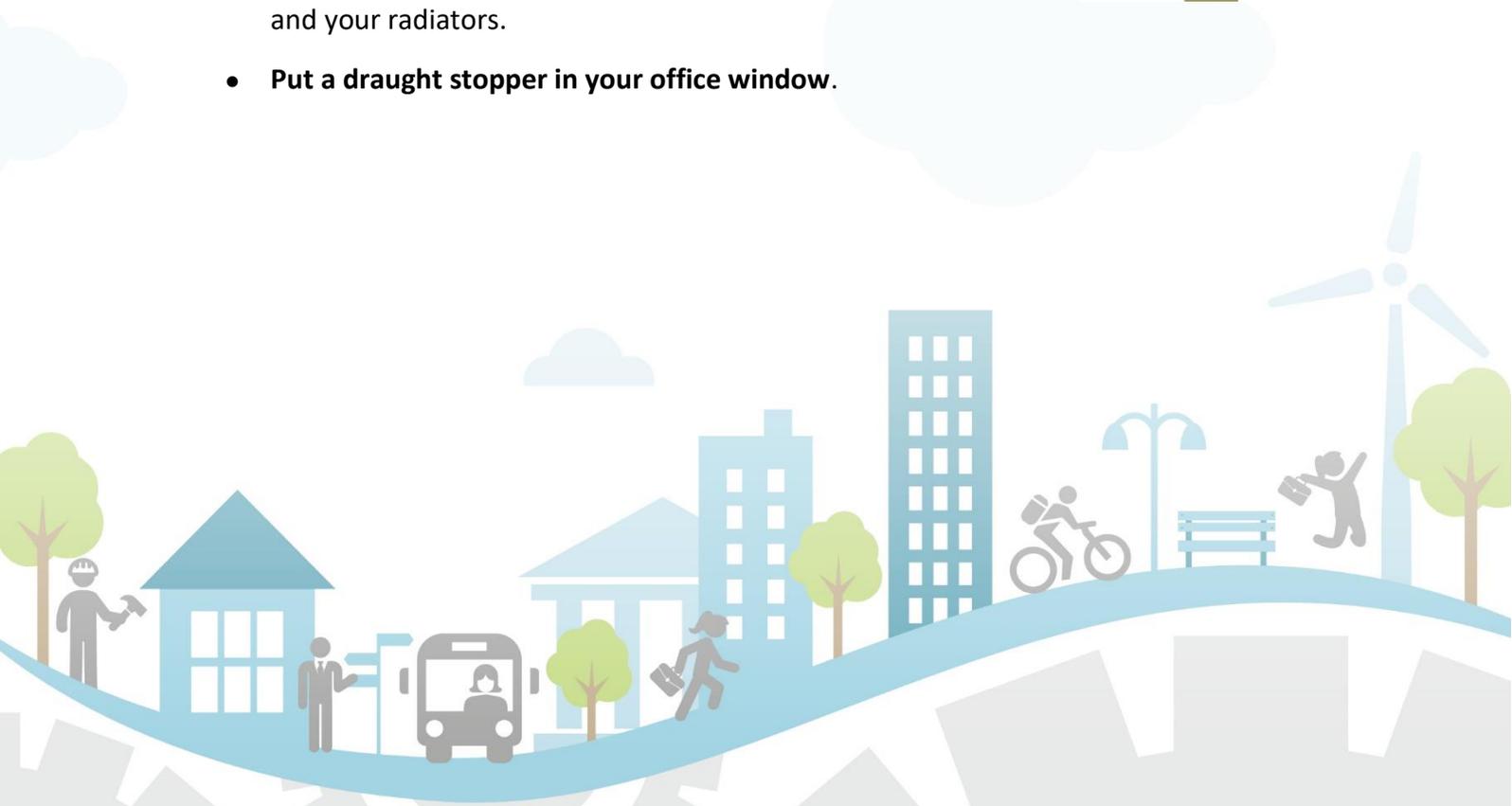
While trying to save on heating make sure that both male and female colleagues are at comfort. In office buildings temperatures are often based on old standards that consider the metabolic rate of men. However, women generally have a lower metabolic rate because of their body composition, so they prefer warmer rooms and need less air conditioning.



Make sure that people who like warmer temperatures sit closer to the radiator, get a carpet under their table or an extra (woollen) blanket on their chair. These practices of course also come handy if you cannot control the heat in your office at all and you find it too cold.

TOP TIPS FOR CHAMPIONS

- **Have more plants around you!** They don't only cheer you up but also increase humidity in the room, and with higher levels of humidity cold doesn't feel so cold on those chilly days. Keep indoor humidity between 40-60% during winter months.
- **Place heat resistant radiator reflectors** between exterior walls and your radiators.
- **Put a draught stopper in your office window.**



CONSIDER ALSO...

- **Green roofs and green walls** don't only keep heat away in the summertime but **can help to reduce heat loss from buildings during the winter** when root activity of plants, air layers and other components of the soil system create heat and provide an insulation membrane on top of the building.
- **In a room filled with warm** (such as yellow, orange) **colours we literally feel warmer.** Even if you are not allowed to paint the walls of the office, you can put up some posters, furniture or objects with warm colours around you.

FURTHER READING AND IDEAS

- <https://www.nh.gov/oep/energy/saving-energy>

SOURCES

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