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# Energy Saving Tips



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## TIP OF THE WEEK

OFFICE  
ENVIRONMENT

### Office Environment

- **Cool your interiors by using plants for shading and humidifying.**
- **Do not neglect the landscape around the office** - A well-designed and well-tended landscape can also help you save energy by reducing your **heating and cooling** costs.
- **Plant more trees for more shades and wind breaks.**
- **Consider installing naturally cooling interior and exterior green walls.**
- **Harvest rainwater** for watering plants and office landscape.
- **Turn your unused spaces** (empty backyard, asphalted front area etc.) **into parks or community gardens.**





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## Office environment – greenery all around

Plants inside and outside the office building have a lot of positive effects, not only on air quality and your mood, but also on your health, your stress level and productivity - not to mention your energy bill! Consider the tips below to go greener in the office.

- 1. Start with your desk** – Place plants on or near your table and convince your colleagues to do the same. Read more on how to choose a good office plant. **Also green other indoor office areas**, such as atriums, lobbies etc. Greenery, plants, gardens or a view of trees outside have all been found to mentally benefit humans, reduce stress, and increase our ability to concentrate.
- 2. Cooling interiors with shading and transpiration** - Solar heat absorbed through windows and roofs can increase cooling costs, and incorporating shade from landscaping elements can help reduce this solar heat gain. By using plants for shading instead of retractable screens, you will still have some nature in the building. Whether you have trees or simply small plants near a window, they can give significant shade throughout the day, thus the need for alternative means of shading can be eliminated.

Plants also cool indoor spaces by a process called transpiration, which can decrease air temperature in offices by up to five Celsius. Plant transpiration in an office environment can create a humidity level matching the recommended human comfort range of 40-60%.

- 3. Do not neglect the landscape around the office** - A well-designed and well-tended landscape is not only aesthetic, but can also help you save energy by reducing your **heating and cooling** costs (depending on the size of the building, of course). Research shows that summer day-time temperatures can be 1.5–3 °C cooler in tree-shaded areas, than in treeless landscapes.
- 4. Plant more trees - As already mentioned, shade is important:** it can protect the office building from intense sun during summers (less cooling required) and cold winds during winters.





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**5. Consider making and installing green walls** – Either interior or exterior, living green walls or vertical gardens, irrigated by a vertical hydroponic system, naturally cool the air in the warm summer months by a process known as “evapotranspiration”.

Exterior green walls also reduce wall surface temperatures resulting in significant energy savings and air conditioning costs. In winter they act as insulation, reducing heating costs.

**6. Harvest rainwater** and save money on your water bill - Use water tanks to collect rainwater for watering plants and office landscape. Give your plants proper amounts of irrigation water and adjust to the season.

**7. Turn your unused spaces** (empty backyard, asphalted front area etc.) **into parks or community gardens.**

## Top tips for champions

Green roofs (roofs covered by living plants) can improve insulation, increase evaporation and cool the building from the top, thus reducing carbon emissions and energy costs.

## You can also

...think about creating an edible garden either around the building or on your roof!

## Did you know?

„A tree-shaded yard can be up to 3 °C cooler than a sunny yard. A shaded lawn can be up to 14 °C cooler than a sunny pavement.”

Trees are natural air conditioners. Evaporation from a single tree can produce the cooling effect of 10 room-sized air-conditioners operating 20 hours a day - according to findings by NC State University.

According to literature from the Associated Landscape Contractors of America, proper selection and placement of plant materials can lower heating and cooling costs by as much as 20%.

## Further reading and ideas:

<http://energy.gov/articles/energy-saver-101-infographic-landscaping>

**Source(s):** <http://greenplantsforgreenbuildings.org/resources/benefits-of-green-plants/>

<http://www.plantcultureinc.com/whygreen.html>

<http://energy.gov/energysaver/landscaping-shade>

<http://www.theguardian.com/sustainable-business/offices-roofs-edible-garden-sustainable-cities>



An office car park turned into a community garden in Belfast

