

Energy saver brochure

Do you also wish
to save energy and
costs?



We will show you how
you can save up to 50%
of your energy costs.



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Dear readers,

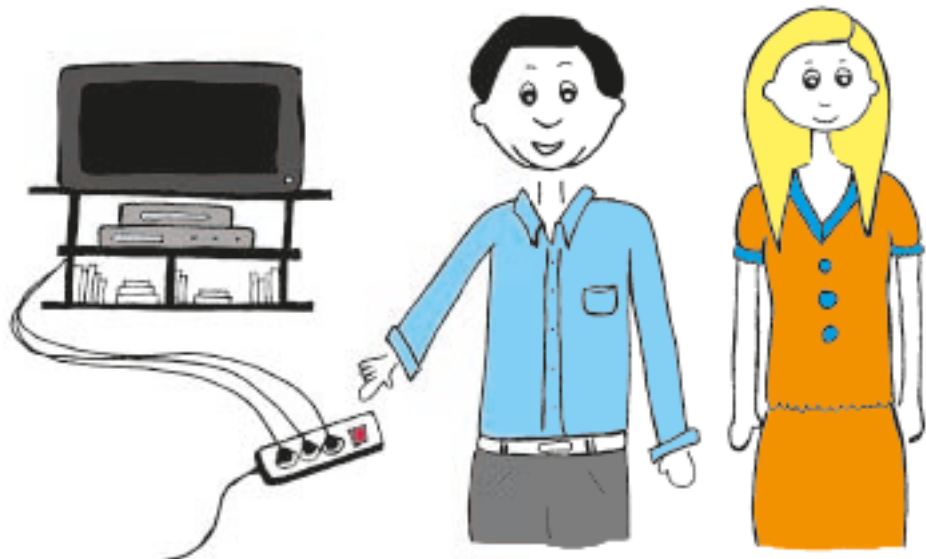
we are two families by the name Miller and Smith. In this brochure we want to show you how you can save energy at home without much effort.

We have already reduced our energy consumption so that we save several hundred euros every year. And we do not have to forgo anything, we just use the energy more efficiently.

That does not only help us save money, it also protects the environment and our valuable energy resources. It also means that we emit less CO₂, the gas that contributes to global warming.

Our motto is: As much as necessary, as little as possible.

Saving power



Secret power guzzlers

Chris has used an electric current meter and measured: His TV set consumes 12 watts per hour in stand-by mode and 4 watts per hour when it is switched off.

So now Chris connects all his electrical units to a switchable multiple socket. It cost him € 3.50. Now Chris just presses one switch to turn all secret power guzzlers off. This way Chris and his family save more than € 100 per year.

Power losses caused by idle devices add up to a total of about € 4 billion per year in Germany!

New electrical devices help save power

An energy-efficient device may be a little more expensive to buy, but in the long run it saves a lot of power. So watch out for the power consumption whenever you buy a new device.

In addition the EU energy label for electrical devices provides useful information. It allows you to compare the power consumption of domestic appliances. Every device is rated in an energy consumption class from A through G.

The letter A stands for the lowest energy consumption, G for the highest. The most energy-efficient refrigerators and deep-freezers are marked "A+" and "A++". For an overview of the most important labels check pages 24 and 25.

Saving power

Stand-by mode

Many devices consume power around the clock although they are not switched on at all. You can see that by the little lamps or clocks on the devices. Such stand-by mode causes unnecessary costs up to € 200 per household every year.

Devices which seem to be off

TV sets, washing machines, computers, charging cradles – lots of electrical devices draw power as long as the plug is in the socket, even when the units are switched off. Often you can detect it because the power pack is warm or makes a humming noise.

Useful hint:

Always use switchable multiple sockets and switch them off after use.





Saving power

In your kitchen

Tina shows Anne her new kitchen appliances: her dishwasher and fridge. "Now I can save almost 70% of the power costs because I bought a class 'A++' fridge", says Tina. "My old fridge consumed about € 1,000 worth of power in 10 years, and the new one will consume only € 300 over the same time."

And her new dishwasher saves even twice: It consumes less power and less water.

Useful hint:

Instead of doing the dishes by hand use the dishwasher. It consumes less than half the volume of water, but only if the machine is full of dishes.



Refrigerator – always on duty

Power saving hints:

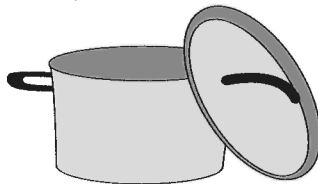
- Replace your old unit after a maximum of 15 years.
- Do not leave the doors of refrigerators and deep-freezers open.
- Temperature setting: refrigerator +7°C, deep-freezer -18°C.
- Do not place the refrigerator or deep-freezer next to the heater, stove or into the sunshine.
- Defrost your unit as soon as ice has built up inside.
- Never put warm food into the refrigerator.
- Make sure there is enough ventilation for the cooling coils on the rear side.
- When you are out of home for a longer time switch the unit off and defrost it.

How to save energy when you cook

Tina has an electric stove. She knows that cooking and baking with electrical power costs a lot more than with gas. That is why she is very keen on saving energy.

This is how to do it:

- Use a pressure cooker. It saves 60% of the energy needed for long-cooking food.
- The right lid for every pot saves up to 50% of energy.
- Use the residual heat of the hotplate.
Switching it off a few minutes earlier saves up to 25% of the energy.
- Hotplate and pot should have the same diameter (saves 15%).
- Use an electric kettle instead of a hotplate and pot (saves 50%).
- Do not open the oven door unnecessarily.
- Keep hot beverages in a thermos.



Saving power

Lighting

Tina and Anne use low-energy bulbs and thus save at least € 50 per lamp. Low-energy bulbs consume up to 80% less power than incandescent lamps because an 11 watt low-energy bulb is as bright as a 60 watt incandescent lamp.

Since low-energy bulbs last 8-15 times longer they are much cheaper in the long run, although they are more expensive to buy at first. It makes sense to use them wherever light is needed for more than 10 minutes. Halogen bulbs are no low-energy bulbs and last about twice as long as incandescent lamps.

Switch the light off when you are not in the room!



Hints for buying low-energy bulbs:

- Look for the EU energy label, and buy only lamps with energy consumption class A.
- Pay attention to the rated service life indicated on the package.
- There are two sizes, E27 (large) and E14 (small) socket.
- There are "cold start" and "warm start" bulbs (see Glossary).
- By now low-energy bulbs are available in all shapes, e.g. candle, bulb, or ball shape.
- They are available in various light colours:
 - "warm white" = 2,700 – 2,900 Kelvin
 - "neutral white" = about 4,000 Kelvin
 - "daylight white" = 5,000 – 6,500 Kelvin
- Dimmable bulbs are also available.



Room temperatures

Heating is what consumes most energy in a household: a full 70%. This is where saving is especially important. It is easy:

Heat with measure.

A room temperature that is one degree lower saves 6% in heating costs. In addition too high temperatures are unhealthy and increase the risk of catching a cold.

Recommended room temperatures:

Kitchen 18°C

Living and eating rooms 20°C

Working and children's rooms 20°C

Bedrooms 17°C

Bathroom 24°C

Night time 16°C

Heating as needed

- When you are absent from home for a longer time and when you ventilate the rooms switch the heating off.
- For 1-2 weeks set it to frost protection (❄) or switch heating off.
- For 1-2 days set it to stage 1.
- For several hours of absence set to stage 1 or 2.
- Shut down the heating when you ventilate the room! Otherwise the heat escapes unused. That consumes much energy.

Further hints:

- Keep the doors to unheated or colder rooms closed.
- Seal any leaky joints or slits on doors or windows using sealing tape or door sealing strips (from € 5) to save up to 15%.

Heating

Trapped heat is lost heat

"Why is it always so cold in our living-room? I have turned the heating fully on", says Anne, who is shivering in her armchair. "That is clear", says Paul, "with the armchair right in front of the heater the heat cannot pass by. This way it just heats up the back of the armchair." He pushes the armchair with Anne to one side.

This is what disturbs heat circulation:

- Heater covers
- Curtains in front of heaters
- Drying laundry on the heater

Make sure the thermostat valves are not covered
because otherwise they cannot control the room temperature properly.



Ventilation

Ventilating the right way

Intermittent ventilation:

RIGHT

Always open the windows (and door if possible) wide to ventilate. This way the air is exchanged quickly without too much heat escaping. In winter 5 minutes are sufficient for ventilating. Turn the heater off while ventilating!

Permanent ventilation through tilted window:

WRONG

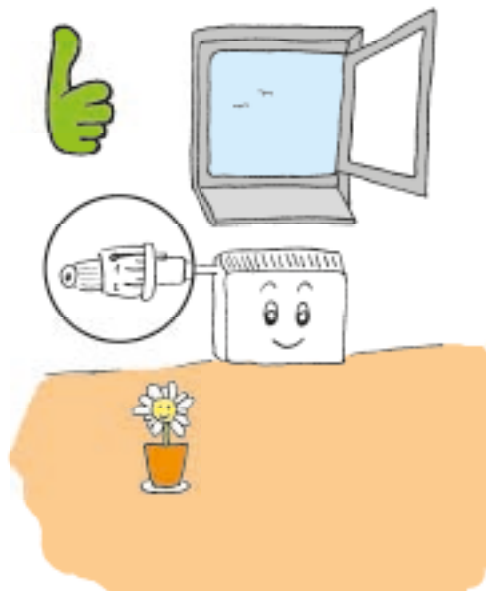
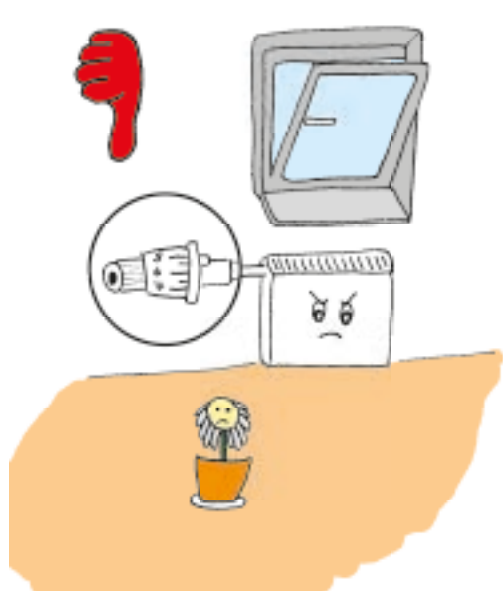
In winter permanent ventilation through a tilted window loses much heat, and it takes very long to exchange the air completely. Especially much heat escapes to the outside without being used if the window is right above the heater. And the walls cool down as well.

How often should you ventilate?

Ventilate the whole flat in the morning after getting up. In the morning and afternoon ventilate the rooms again which are in use. In the evening ventilate the bedroom before going to bed. After taking a shower or a bath, and after cooking or drying the laundry there is much humid air in the room. Then ventilate intensively.

Hint:

Wipe the water from the bathroom tiles after taking a shower. If the bathroom does not have any window, then open the nearest window in another room. Keep all other doors in the flat closed to prevent the humidity from going into the whole flat.



Ventilation

Mould

Mould detected – mould under control

You can detect mould as black, white, yellowish or greenish specks on the wall. Mould grows especially well where it is cold and moist.

Example:

- Over tilted windows
- In cold rooms and
- On cold external walls



That is where the air cools down, and the air humidity condensates on the wall.

A high concentration of mould can cause respiratory diseases, allergies and infections. Mould has to be removed, especially in bedrooms.

However, first the reason for mould growth has to be identified and corrected. Otherwise the mould comes back again and again, spreads out and causes bad damage to the building. So always inform your landlord in the event of mould detection.



Mould

Preventing mould

- Ventilate frequently and sufficiently!
- Keep the doors to less heated rooms closed.
The heat would also carry humidity into the cooler room.

Heat enough

Do not let the rooms cool down. In rooms with cold external walls the temperature should not drop below 20°C, and do not forget to ventilate them regularly and sufficiently.

Keep furniture about 5-10 cm from the walls. It is especially behind large wardrobes that mould can grow if there is not enough air exchange.



Saving water



Saving water in bathroom and toilet

By saving water you save the costs of the water, sewage and of the energy for heating up the water. The Millers have reduced their € 1,200 annual water bill a great deal.

Hints for saving water:

- Take a shower instead of a bath.
For a bath you need three times as much water.
- A toilet flush system with a stop button saves 50% of the water. It is very easy to retrofit.
- Repair any dripping taps. A leaking tap can waste up to 50 litres of drinking water per day. That is 18,000 litres per year.
- A water-saver shower head saves 35% of water.

Clean laundry, clean environment

Washing, drying and saving energy:

- Only use the washing machine when it is full.
- Reduce the washing temperature and save 30-40% of power. For normal laundry 40°C is enough, for white laundry use 60°C.
- Dose the washing powder properly.
- Energy-saver programmes run a little longer. The detergent can work longer, and you can reduce the temperature by one stage.
- Use a clothes line or clothes horse for drying.
- Do not use the prewash cycle.
- Douse dirty laundry before washing.

Separating waste



PACKAGING	PAPER/ CARDBOARD	ORGANIC WASTE	RESIDUAL WASTE
<p>Plastic materials, pots, bottles, films, foam, metal packaging, aluminium foil/ caps/trays, bottle caps, beverage cans, preserve tins, compound packaging, milk and juice cartons</p> <p>NO glass!!!</p>	<p>Books, exercise books, boxes (e.g. washing powder boxes), catalogues, crumbled paper, clean brochures, writing paper, paper packaging (e.g. flour or sugar bags), magazines, newspapers</p> <p>NO dirty or coated paper!!!</p>	<p>Flowers and garden waste, egg shells, food leftovers (also when cooked), coffee grounds incl. filter, food that has gone bad, fruit and vegetable residues (incl. citrus fruit), tea and tea bags</p> <p>NO diapers, ashes, cat litter or vacuum cleaner bags!!!</p>	<p>Ashes, ashtray content, dried paint, dirty foils, photos, films, vegetable and fruit crates, crockery, processed wood, hygiene items, cat litter, dirty paper, mirror and window glass, toys, vacuum cleaner bags, diapers</p>

Separate glass into white, green and brown glass!

Separating waste

Separate waste properly and save money

Packaging, glass, paper and organic waste can be recycled. These valuable materials have to be collected separately from residual waste – properly sorted in the right coloured bins. That helps save raw materials and costs. The disposal of packaging material with the label "Der Grüne Punkt" has already been paid by the purchase price.

But:

Any unsorted waste thrown into the coloured bins has to be paid for again. The most expensive part is residual waste which goes into the grey bin.

It is even better for the environment to avoid waste generation, e.g. by not using plastic bags!



Hazardous waste and bulky refuse

Waste that contains hazardous materials such as paints, lacquers, chemicals, spent oil, batteries, low-energy bulbs and medical drugs has to be handed in with one of the six hazmat centres (Schadstoffstellen) of the BSR city cleaning service.

Up to 20 kg per household per day are free of charge. Old electrical devices and bulky refuse up to 2 cubic metres (old furniture, uncontaminated wood, mattresses, carpets, PVC flooring) can be handed in to all BSR recycling yards free of charge. Collection by BSR costs money.

Further information and addresses at 030 / 7592-4900 or under www.bsr.de



Using green power is active climate protection

By using environmentally friendly renewable energies you do without environmentally harmful power from nuclear and coal-fired power plants. Often green power is already cheaper than the regular rates of conventional power utilities. Important! Choose a power utility that offers 100% of clean green power.

For more information use the free hotline:
0800/7626852 or gruenerstromlabel.de

Changing your power vendor is easy, quick and free of charge for you. Contact the vendor of your choice, and they will take care of everything that is necessary.

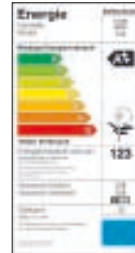


Additional information

Energy labels

EU Energy Label

Indicates the power consumption class of domestic appliances. "A" indicates the lowest energy consumption, "G" the highest. For refrigerators and deep-freezers "A+" and "A++" save even more energy than "A" units. Mandatory label.



GEEA Energy Saver Label

Indicates low power consumption in stand-by mode, but tells nothing about power consumption in operation.



Euroflower (Eco Label)

The European environmental label is awarded for environmentally friendly, consumer-friendly and long-lived products.

Products include, e.g. low-energy bulbs, lamps, domestic appliances and electrical devices.



Blue Angel

Awarded after checking the environmental compatibility of materials, the ban on certain materials, power consumption, ergonomic aspects and consumer service.

Products include paper products, paints, lacquers, batteries, furniture, office equipment, etc.



Energy Star

The basis for awarding this label is the power consumption in stand-by, which must not exceed a certain value.

Products include office equipment, mainly computers and monitors.



Additional information

Glossary

Accumulator: An accumulator is a storage device for electrical energy that can be recharged up to a thousand times.

Energy consumption classes: There are seven energy consumption classes, A through G. A indicates very low, and G indicates very high power consumption. For refrigerators and deep-freezers there are also classes A+ and A++ for units which consume especially little power.

Halogen lamps: Halogen lamps emit very concentrated, brilliant light that is similar to natural daylight. They consume less power than incandescent lamps and last about twice as long. Halogen lamps are not low-energy bulbs!

Cold starters: Fluorescent lamps that light up immediately, but usually do not last as long.

Idle: A unit consumes power without fulfilling its function as such, e.g. in stand-by mode, or when it just appears to be off.

(Compact) fluorescent lamps or tubes: They only consume about 15% of the power of incandescent lamps and can last up to seven times as long. There are various light qualities for almost every application. Pay attention to the difference between cold starters and warm starters.

Mains power switch: A true OFF switch that disconnects the power pack from the mains.

Glossary

Power pack: The power pack supplies the unit with power. It can be integrated with the unit or be connected separately, e.g., mobile phone chargers.

Switchable multiple socket: Multiple power socket with an OFF switch. One touch is enough to switch several devices (incl. their power packs) completely off and on again.

Stand-by mode: The device can be switched on, e.g., by a remote control unit, or it is ready to receive. Electric current meter: Measures the power uptake and/or current draw, e.g. of domestic appliances, and some models can also calculate the power costs.

Thermostat (valve): Used on the heater to control the room temperature. The thermostat responds to the temperature in the room and regulates the flow of hot water into the heater as necessary. Thus it keeps the room temperature constant as desired. Nowadays thermostat valves are mandatory.

Warm starters: Fluorescent lamps that light up with a certain delay after being switched on because they have an electrode pre-heater.

Additional information

Advice centres and offers

Verbraucherzentrale Berlin e. V. (Consumer Advice Centre)

Hardenbergplatz 2
10623 Berlin
Phone 030 / 21485-260
www.verbraucherzentrale-berlin.de

Offers advice on:

- Saving energy
- Heating, heating energy consumption, heating costs
- Hot water
- Mould growth in homes, identification of causes, health assessment, mould control
- Tenants' issues/operating costs, utility billing

Appointment required, fee payable.

Bürgerberatung Energie & Umwelt (Advice Centre for Energy and Environment)

Sauerbruchstraße 23
14109 Berlin
Phone 030 / 3016090
www.gfl-online.de

Offers advice on:

- Saving energy at home
- Heating
- Power and heating costs
- Hot water

Brief information by phone:

Tuesday and Thursday 11:00-14:00 h

Personal advice:

Thursday 14:00-18:00 h

Fee: € 5.--

Advice centres and offers

Berliner Mieterverein (Tenants' Association)

Advice during regular opening hours and upon appointment made by phone at 030/226260, membership required.

- Tenants' issues/operating costs
- Utilities billing (incl. heating costs)
- Mould

Berliner Stadtreinigungsbetriebe (BSR, City Cleaning Service)

Phone 030 / 7592-4900

www.bsr.de

- Waste disposal, recycling
- Hazardous waste, bulky refuse

Electrical devices check (ElektrogeräteCheck)

www.co2online.de

- Comparison of electrical devices
- List of energy-efficient devices

Gesundheitsämter der Berliner Bezirke (Public Health Departments)

Advice by telephone

www.gesundheitsamt-berlin.de

- Mould growth in homes

Berliner Mietergemeinschaft (Tenants' Association)

Möckernstraße 92, 10963 Berlin

www.bmgev.de,

Phone 030 / 2168001

Membership required, or fee payable.

- Tenants' issues/operating costs
- Utilities billing (incl. heating costs)
- Defects of homes, incl. mould

Additional information

Further information

Free brochures for download

Deutsche Energie-Agentur GmbH (German Energy Agency)

Phone 030 / 726165-600

E-Mail: info@dena.de, www.dena.de

"Energy saver hints for domestic appliances"

"Saving power with light"

"Stopping stand-by losses"

"Do not pay too much for TV, HiFi and Co."

"Cost comparison of low-energy bulbs"

Bund der Energieverbraucher (Energy Users' Association)

www.energienetz.de

Heating, energy-efficient domestic appliances,
lighting, ventilation

Verbraucherzentrale (Consumer Advice Centre)

"Moisture and mould growth in homes"

Umweltbundesamt (German Environmental Office)

Phone 0340 / 2103-0

E-Mail: info@umweltbundesamt.de

www.umweltbundesamt.de

"Help! Mould in our home"

"Drink – tap water"

Initiative Energieeffizienz (Energy Efficiency Initiative)

Information and hints on stand-by mode,
energy-efficient lighting and domestic appliances

Phone 0800 / 0736734 (for free)

www.initiative-energieeffizienz.de

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