

Climate protection even on the tightest budget









FOREWORD – MAKE FULL USE OF BENEFITS AND PROTECT THE ENVIRONMENT

We all need energy and a clean, intact environment for a good life. Alongside new technologies, it is user behaviour that can also have a major impact on energy consumption in and around the home. This brochure shows you how to make efficient, focused use of energy and resources without making life any less comfortable. Using these simple tips and tricks, you can not only increase your personal quality of life, but also make a valuable contribution to an ecologically sustainable environment and therefore a better future for us all. And of course you can save money too.

Please feel free to contact us if you have any energy queries that are not answered in this brochure.

www.doppelplus.tirol



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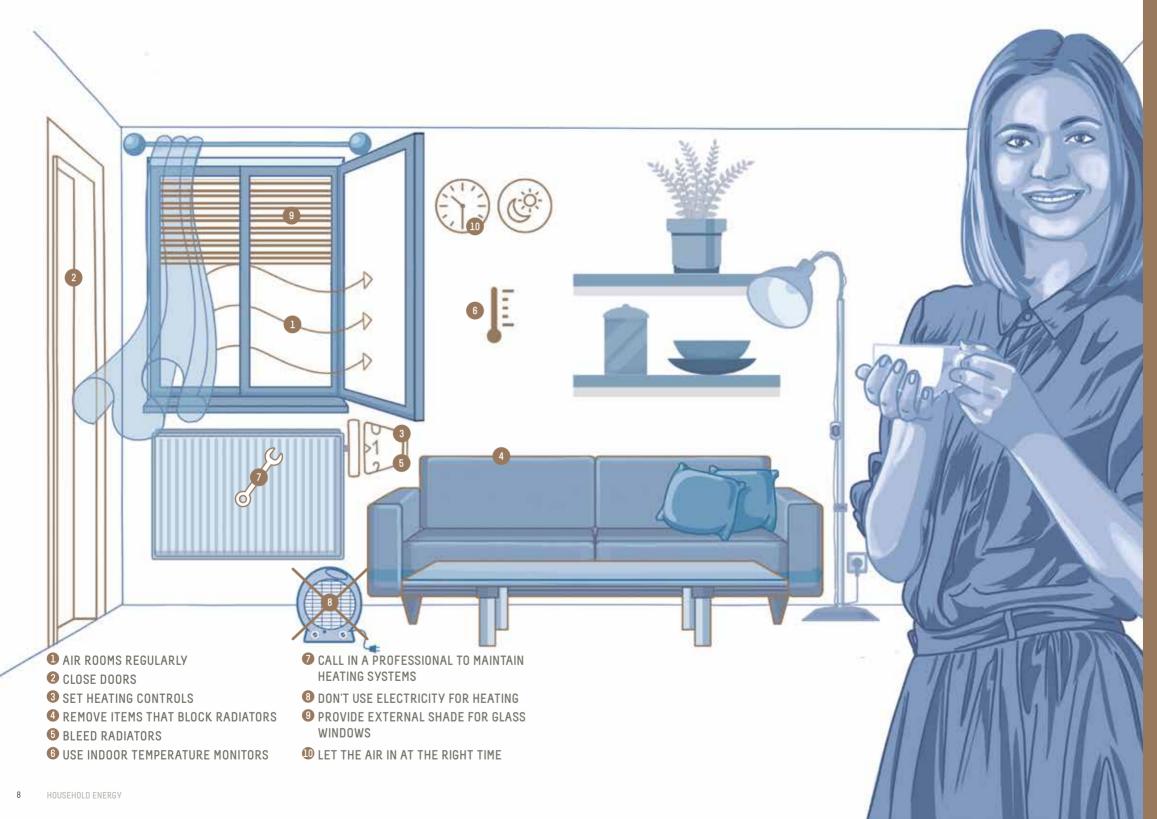
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I IDEAL ROOM TEMPERATURE

Lowering the room temperature at home by one degree results in energy savings of 6%.



HOW TO SAVE ENERGY WHEN HEATING YOUR HOME

1 AIR ROOMS REGULARLY

Open your windows wide and air your rooms several times a day – this prevents the walls cooling down too much, improves room climate and prevents the build-up of mould. How long you air the

room for depends on the time of year. As a rule: the colder it is outside, the less time you need to air the room for (around 5 minutes in winter). The radiators should be turned off while airing the room.





First thing in the morning when you get up



Once or twice during the day



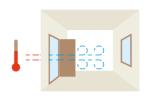
In the evening before you go to bed



DON'T TILT WINDOWS OPEN

if a solid external wall cools down by 8 degrees with a window tilted open, it takes a whole hour for the wall to warm up again.

2 CLOSE DOORS



Warm air flows continuously into colder rooms if you leave the doors open in the house. This means a lot of energy is consumed unnecessarily. In extreme cases, open doors could even lead to mould build-up, as moisture is created when the warm air cools down on colder components.

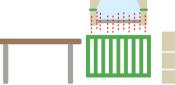
3 SET HEATING CONTROLS

Set your heating controls right or ask a professional to do this for you. Errors often occur with the timer function. meaning that the heating comes on at night and not during the day.

4 REMOVE ITEMS THAT BLOCK RADIATORS

Keeping the curtains or blinds closed at night helps keep heat in the house. However, don't let long curtains, furnishings or coverings block or cover the radiators – remove if necessary.







5 BLEED RADIATORS

Bleed your radiators at the start of the heating season and top them up with water if necessary. Air in the system not only causes disruptive noise, but also reduces heating performance. Thick carpets over underfloor heating also have a similar effect.



6 USE INDOOR TEMPERATURE MONITORS

Remember that higher room temperatures also mean increased heating costs. Check your room temperatures using an indoor temperature monitor.

ASK A PROFESSIONAL

Call in a professional to carry out maintenance work on your heating system regularly and implement a hydraulic balance in the system to ensure optimum heat distribution.

8 DON'T USE ELECTRICITY FOR HEATING

Electricity is the most expensive form of energy. Try not to use electric heaters!



PROPER COOLING

9 PROVIDE EXTERNAL SHADE FOR GLASS WINDOWS

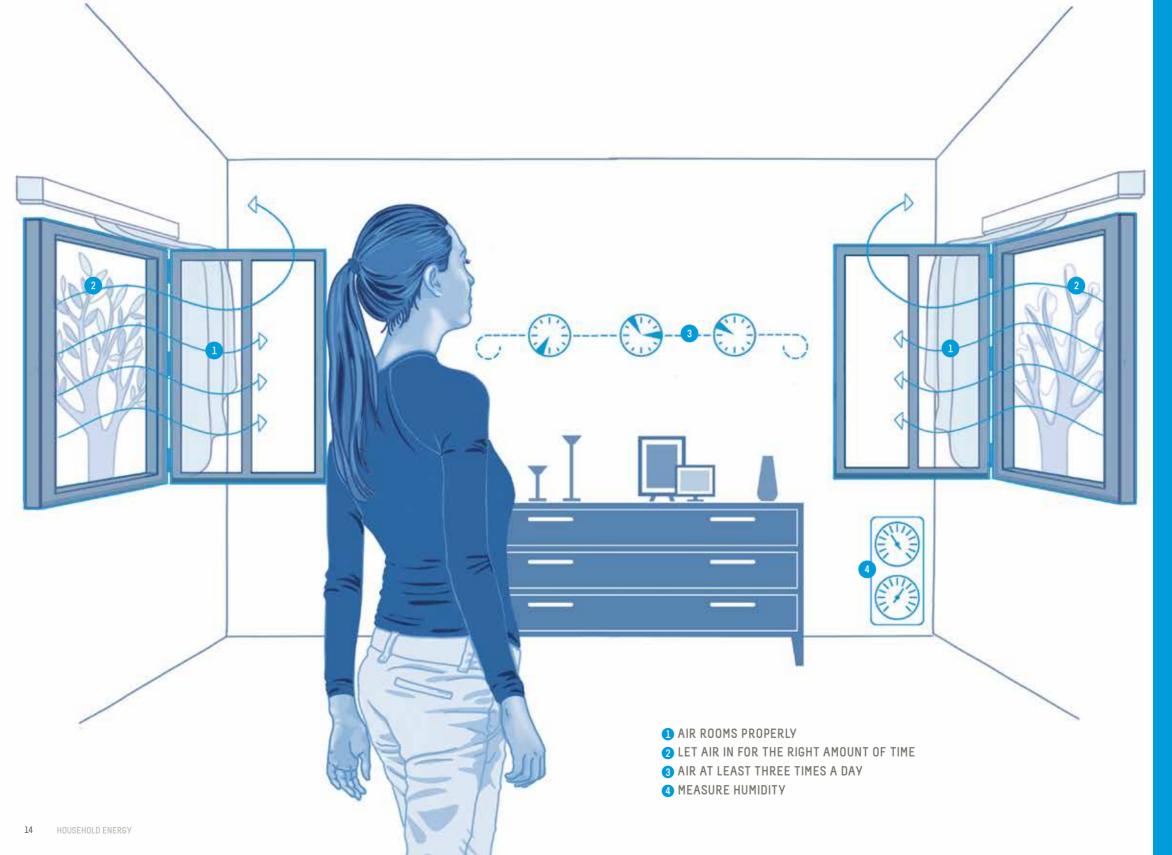
Don't let the heat of the sun penetrate right into the house in the summer. Keep windows closed during hot sunny days and shade them from the outside.



10 LET THE AIR IN AT THE RIGHT TIME

In the hot summer months, open plenty of windows to let the air in but only at night or first thing in the morning.





WHERE DOES MOISTURE COME FROM?

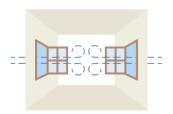
A person is responsible for the emission of around 1 to 1.5 litres of water into the atmosphere every day. This includes moisture from cooking, baths, showers etc. This means that a four-person household causes 10 to 12 litres of water to be emitted into the air.



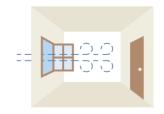
MAKE SPACE FOR FRESH AIR

1 AIR ROOMS PROPERLY

Don't leave the windows tilted open for ages – this will not ensure effective air exchange. If the window surrounds cool down too much, this can encourage the build-up of mould and increase energy loss.



Cross-ventilation: for 1-5 minutes Open opposing windows wide at the same time.



Periodic ventilation: for 5-10 minutes Open all windows wide.

2 LET AIR IN FOR THE RIGHT AMOUNT OF TIME

The colder it is outside, the less time you need to air the room for. This will ensure that the walls don't cool down too much and the air in the room can quickly return to a comfortable temperature.

3 AIR AT LEAST THREE TIMES A DAY

You should air the room first thing in the morning, once or twice during the day and in the evening before you go to bed. You should also let the air out if there

is increased moisture in the air caused by cooking or showering. Steamed-up window panes are a warning sign.

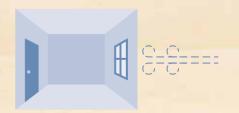
4 MEASURE HUMIDITY

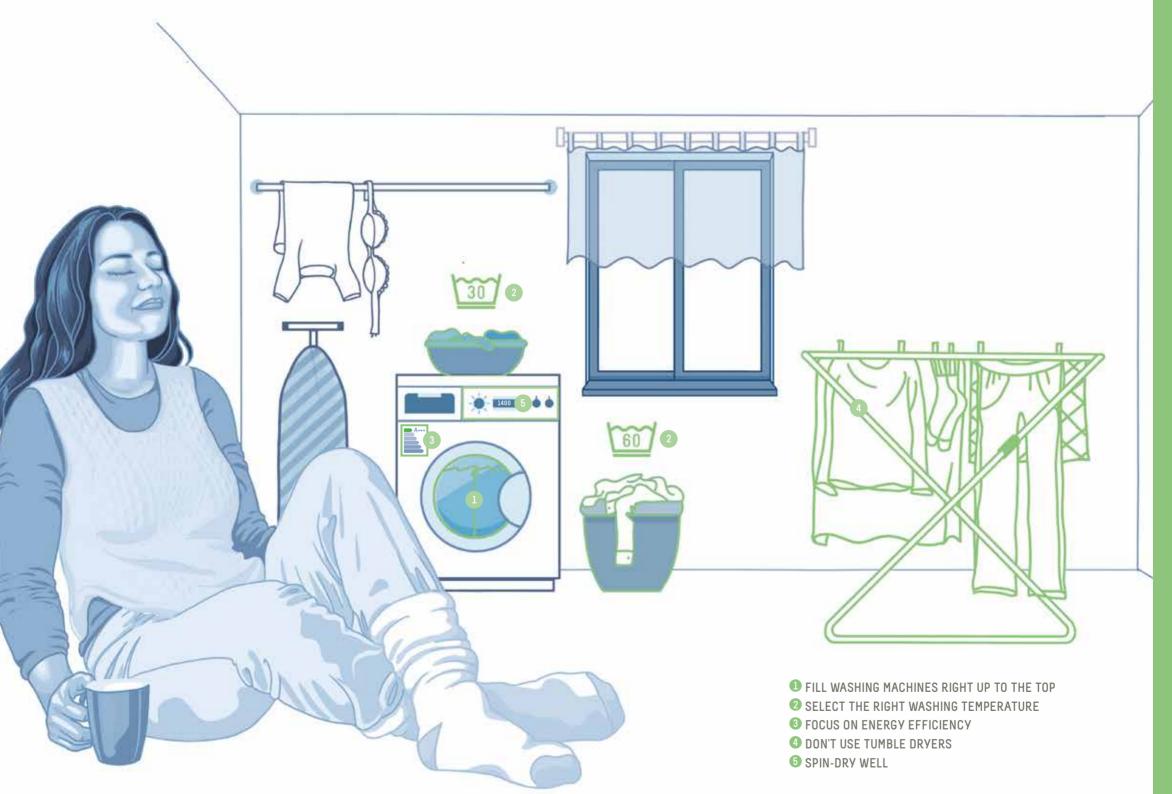
Buy a hygrometer: it measures the current humidity and temperature of the room. Humidity should ideally be around 45%.



HUMIDITY IN CELLARS

Keep cellar windows closed in the summer, otherwise hot damp air from outside will hit the cool cellar walls and cause condensation. This could result in the build-up of mould.









CLEAN WASHING

1 FILL THE WASHING MACHINE CORRECTLY

Use the full capacity of your washing machine. Put the washing in loosely and leave about a hand's width of space at the top.





2 THE RIGHT WASHING TEMPERATURE

Always do your washing on the lowest possible temperature and with as little detergent as possible. *Use a 60°C wash instead of a boil wash and 30°C for everything else*. Run a 60°C wash once a month with a detergent powder that contains bleach. This will prevent the





build-up of a strong-smelling microorganism biofilm in the washing machine.

3 FOCUS ON ENERGY EFFICIENCY

Check out the energy efficiency label when buying a new washing machine and choose the right size for your actual needs.

TIPS FOR DRYING WASHING

4 DON'T USE TUMBLE DRYERS

Tumble dryers use up to 3 times as much energy as clothes washing. Dry washing on a washing line in the sun for free.

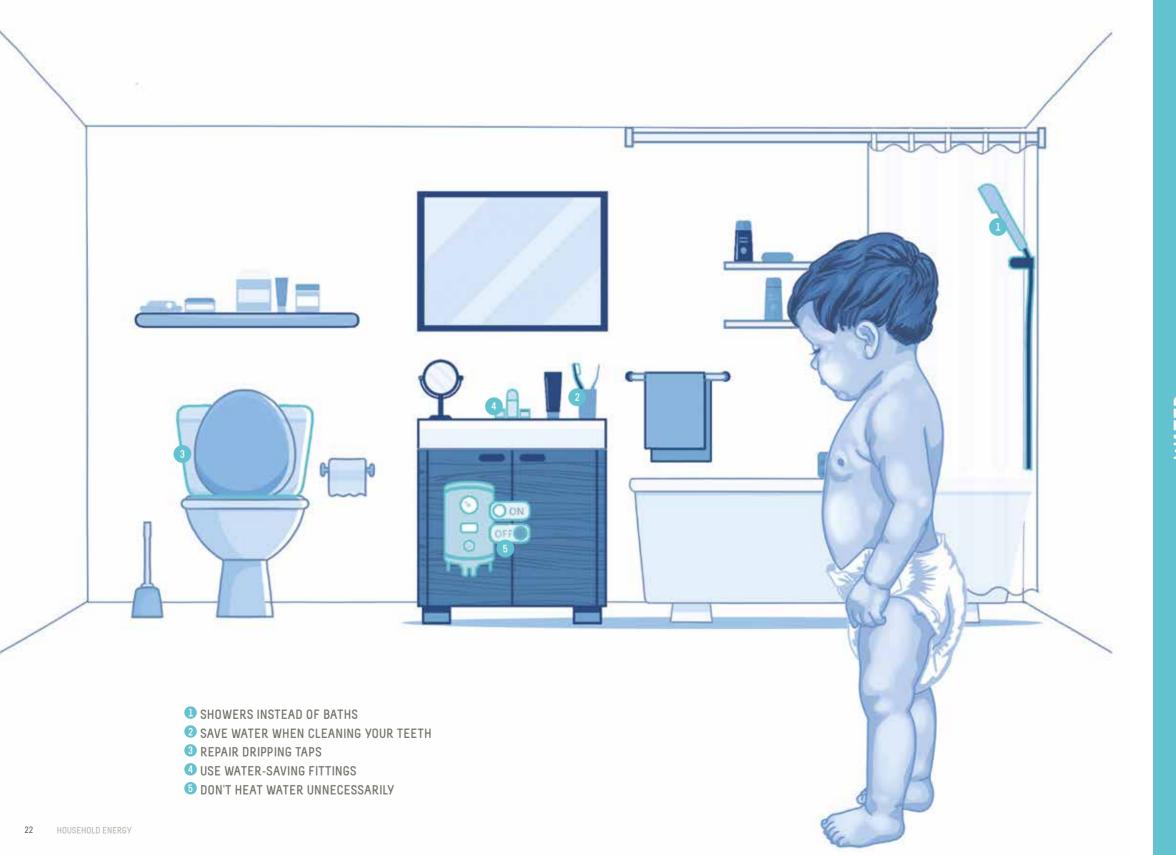


5 SPIN-DRY WELL

If you simply cannot live without your tumble dryer, make sure that the washing you put in has been spun dry well. 1400 rpm should be enough. The better the washing is spun dry, the shorted the drying time.

THE RIGHT DETERGENT

Compact detergent in powder form is the most economical. Plus you need far less detergent that you think you need for normal soiling. Please follow the dosing recommendations!





ECONOMICAL USE OF (HOT) WATER AT HOME

1 SHOWERS INSTEAD OF BATHS

Showers use four times less energy than baths. You save not only that amount of water, but also the sewerage charges.





2 SAVE WATER WHEN CLEANING YOUR TEETH

Turn the tap off while cleaning your teeth or lathering up your hands with soap. Use cold water to clean your teeth and wash your hands, in order to avoid unnecessary heating and save energy and costs.



3 REPAIR DRIPPING TAPS

Save up to 1,500 litres of drinking water per year! Running toilet cisterns use around 40 litres of water a day.

A tap that drips slightly could cause additional costs of over EUR 20.00 during the year.



4 WATER-SAVING FITTINGS

Use water-saving fittings (shower head, aerator) and/or flow controllers.



5 USE THE RIGHT BOILER SETTINGS

The ideal temperature for a hot water boiler is 60°C. Anything higher than that results in avoidable costs, anything lower than that should be avoided for health reasons.



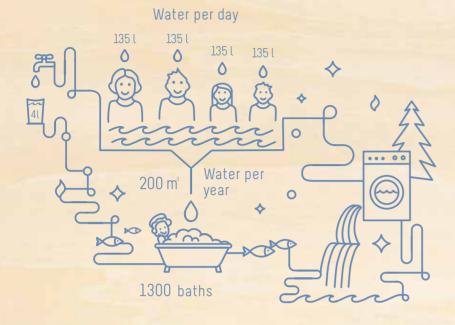
RELAX & SAVE MONEY IN THE SHOWER

The shorter, the better:

Ideal shower length: 3–6 minutes

The lower the temperature, the lower the costs: Comfortable temperature: Between 36°C and 40°C

WATER CONSUMPTION PER HEAD IN AUSTRIA



Tirol is rich in water, but that's no reason to waste it.

6 WASHING DISHES

You need much more hot water and energy to wash dishes by hand than with a dishwasher. Always fill the dishwasher to its maximum capacity – this saves electricity and water.

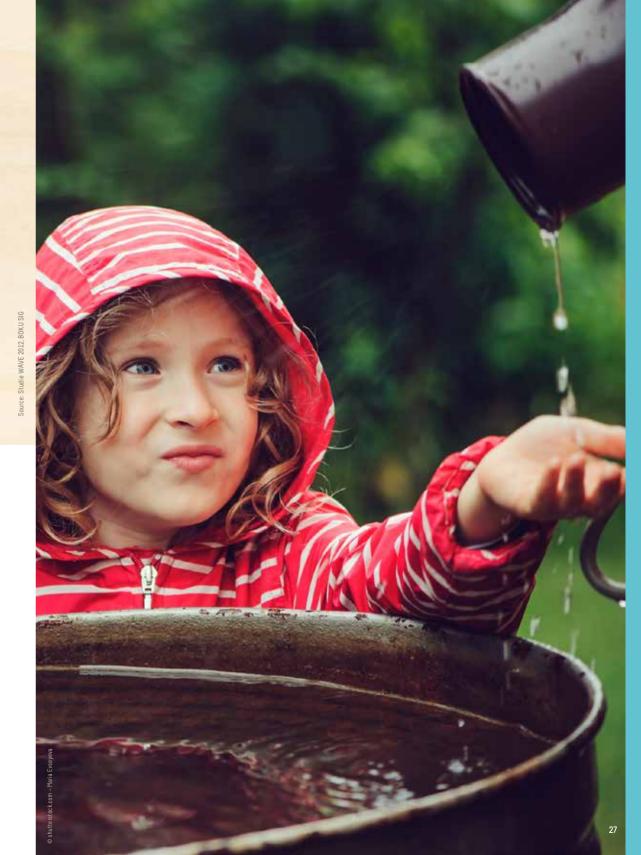




7 USE RAINWATER

Use rainwater for the house and garden (e.g. toilet flush, washing laundry, cleaning activities, watering the garden).

The deliberate use of rainwater can save up to 70 litres of drinking water per person per day.





SAVING ENERGY IN THE KITCHEN

1 CHECK THE TEMPERATURE OF FRIDGES AND FREEZERS

Check the temperature of fridges and freezers. *The optimum temperature* for fridges is between +5°C and +7°C

and -18°C for freezers. The colder the device, the higher your electricity costs.

DEFROST FREEZERS REGULARLY

Heavy ice build-up is a sign that the door seals are faulty. 1 cm of ice means 10% to 15% more electricity is used.



3 LOCATION OF FRIDGES AND FREEZERS

Place your fridge in the coolest possible location: not near the hob or oven in the kitchen, preferably on an outside wall. If

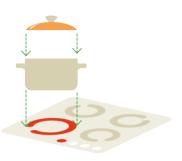
possible, you should put your freezer in an unheated room.

4 ONLY STORE COLD FOOD IN THE FRIDGE

Allow warm food to cool to room temperature before putting it in the fridge.

5 USE THE RIGHT HOTPLATE, PAN & LID

Always use the right lid for your pans when cooking on the hob and use the right size pan for the hotplate. Use the residual heat of the hotplates.



6 USE A KETTLE

It's better to heat water in a kettle than on the hob, as this saves time and money. Only heat as much water as you need.



7 USE THE FAN OVEN SETTING

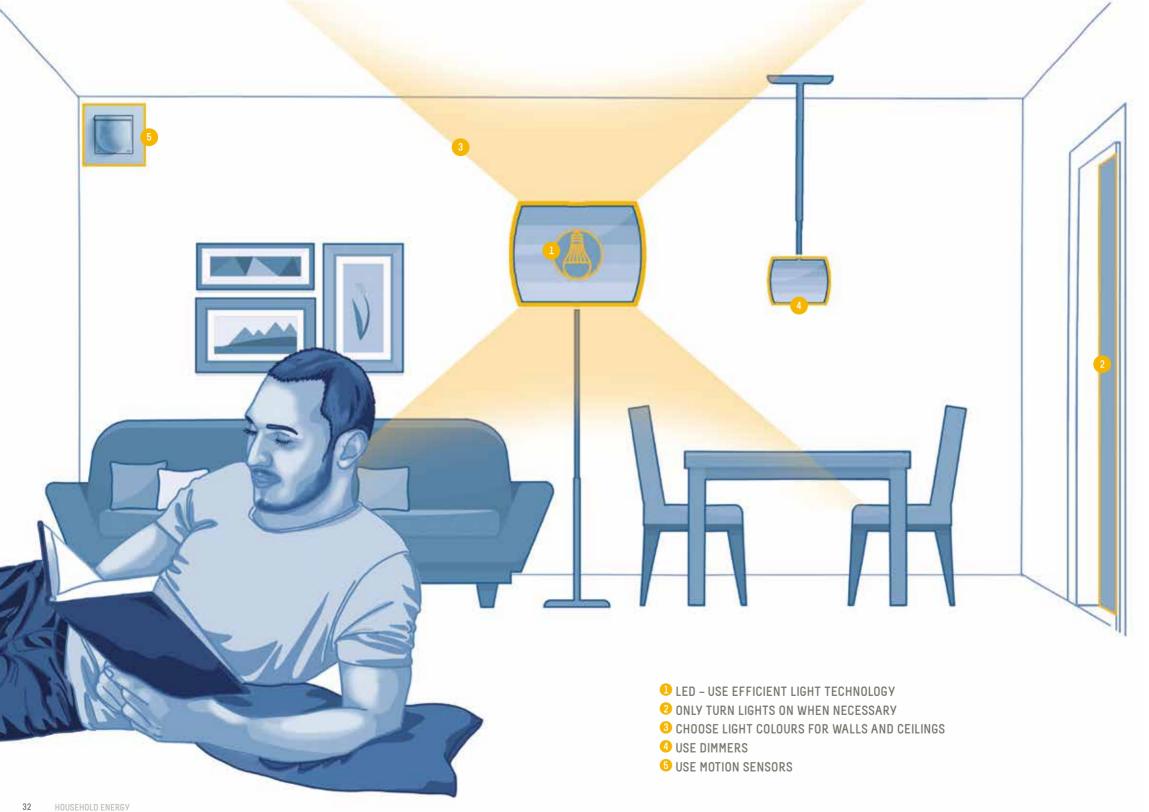
Use the fan oven setting for baking. You can set the temperature 20°C lower than for the normal oven setting and you can use several baking trays at the same time.





8 ONLY PREHEAT THE OVEN WHEN NECESSARY

Only preheat the oven when absolutely necessary. Use residual heat.



FOR THE RIGHT PERSPECTIVE ...

EFFICIENT LIGHT TECHNOLOGY - LED

LEDs use energy more efficiently and generate more brightness per watt. Energy-efficient lights last longer than most other bulb types and are also mercury-free. Check the number of lumens when buying bulbs, in order to generate a comfortable light level.

2 ONLY TURN LIGHTS ON WHEN NECESSARY

Only switch the light on where it feels necessary to do so. There is often no need to have the lights on all over the house. Don't forget to switch the light off when you leave a room.



3 LIGHT WALLS AND CEILINGS

Light colours reflect the light of a lamp. This makes the whole room look brighter. You can often use a low-output lamp to create this effect.





4 USE DIMMERS

You can dim halogen lamps and many LED lights. This offers an opportunity for further savings, as well as creating the right atmosphere.



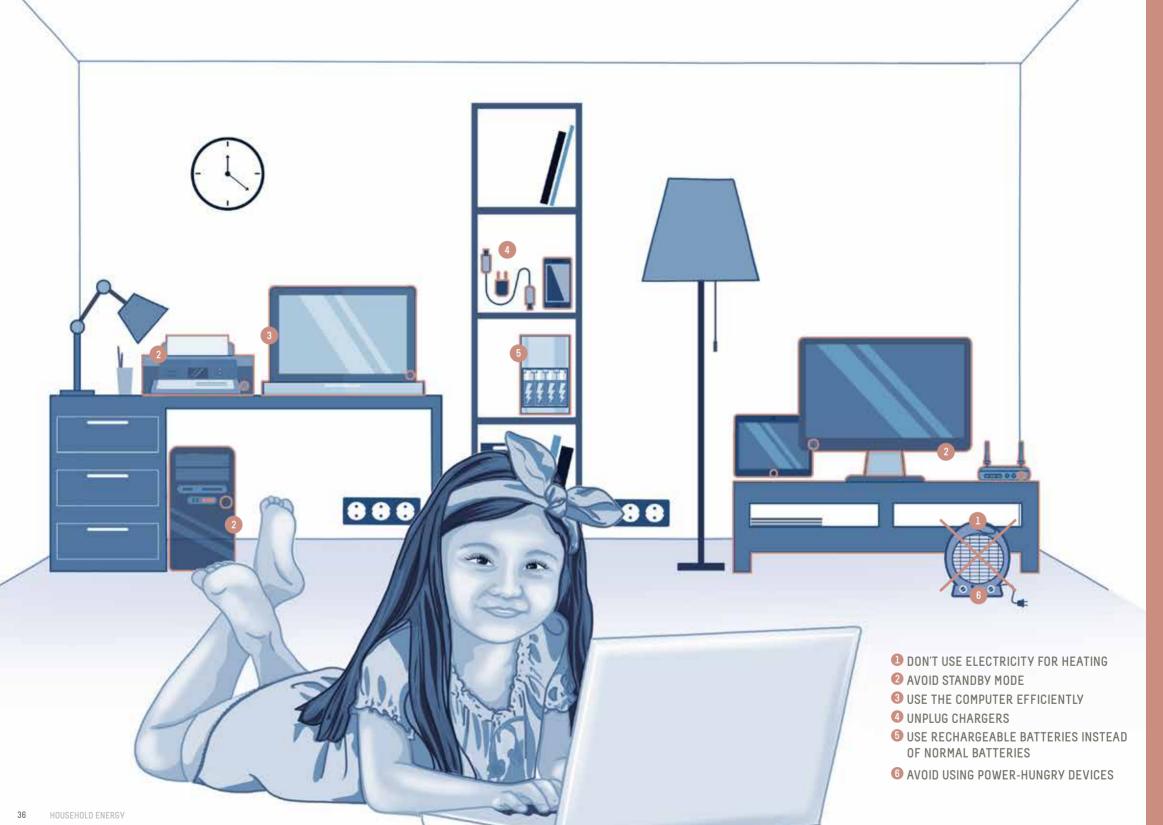
5 USE MOTION SENSORS

Use motion sensors in areas that you rarely go into or only for a short space of time. The motion sensor switches the

lights on and off automatically when someone enters and leaves the defined area.







TIPS FOR SAVING ELECTRICITY

1 DON'T USE ELECTRICITY FOR HEATING

Using electricity for heating is the most expensive way of generating heat. If possible, avoid using infrared heating, electric radiators, night-storage heaters or electric underfloor heating.

The operating costs are so high that even the lowest purchase price is often not worth it.

2 RECOGNISE AND AVOID STANDBY MODE

Many household devices also use electricity when turned off (on standby). Some devices even use more energy in standby mode per year than when actually in use.

Every household contains around 10 to 20 such devices and you can recognise standby mode by looking for the standby light or integrated digital timer.



STANDBY ELECTRICITY CONSUMPTION:

Did you know that it takes a power station with an output of 150 megawatts to generate the standby electricity used across Austria? To compare: Achensee power station = 79 MW

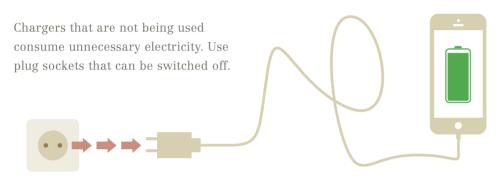


3 USE THE COMPUTER EFFICIENTLY

Adjust the screen brightness to 50–70%. Screensavers really guzzle power, so try to avoid using them. Only switch on the printer, scanner etc. when necessary

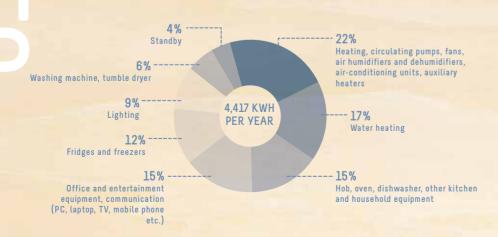
and unplug the modem and router from the mains when you turn the computer off.

4 UNPLUG CHARGERS



AVERAGE ELECTRICITY CONSUMPTION OF AN AUSTRIAN HOUSEHOLD PER YEAR:

Most electricity is used for hot water heating, primarily heating pumps. There is vast potential for savings here.





5 USE RECHARGEABLE BATTERIES INSTEAD OF NORMAL BATTERIES

Always use rechargeable batteries for battery-operated devices. A good rechargeable battery is worth up to 500 normal batteries. Always unplug the charger from the mains once batteries are charged.

6 AVOID USING POWER-HUNGRY DEVICES

Some devices in the home use a lot of electricity unnecessarily. Try to avoid

using these as much as possible or do not buy them in the first place.

Various devices and their electricity consumption per year:

- > Computer
- 2 hours of Internet surfing per day 87 kWh annual consumption
- > Aquarium
- 50 litre for ornamental fish 210 kWh annual consumption
- > Coffee machine

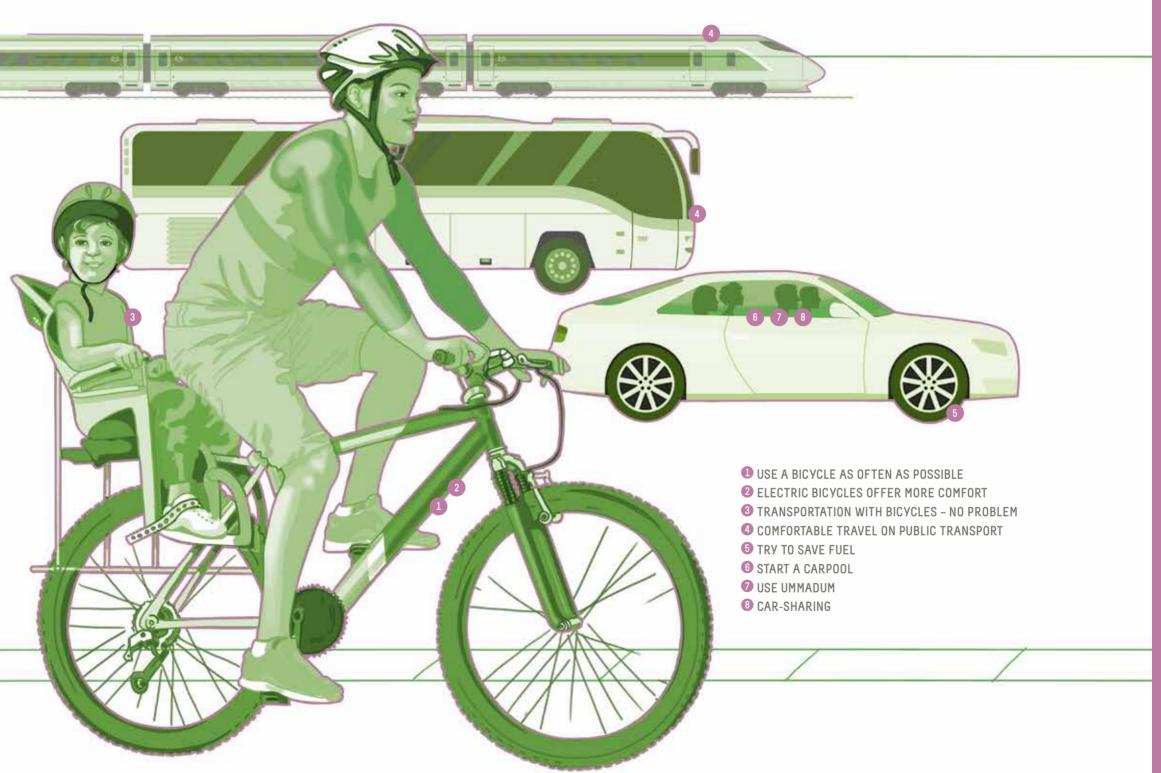
Fully automatic coffee machine on standby – 60 kWh annual consumption

- > Air-conditioning unit
- 50 hot days at 6 hours per day 300 kWh annual consumption

topprodukte.at is a service provided by klimaaktiv, the climate protection initiative set up by the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management, and offers helpful information about energy-saving household equipment.

CONSCIOUS LIVING





ECO-FRIENDLY TRAVEL

1 USE A BICYCLE AS OFTEN AS POSSIBLE



Try to deliberately avoid using the car for short journeys. The cheapest and, above all, healthiest alternative is a bicycle. If you cycle 10 km a day instead of using the car, you can save around 350 kg CO2 emissions per year. There are also

plenty of options for borrowing bicycles. Speak to your local community to find out more. There are plenty of bicycle markets at the beginning of spring in the Tirol where you can buy cheap bicycles. *Info: www.radlobby.at/tirol*

2 ELECTRIC BICYCLES OFFER MORE COMFORT

Electric bicycles are the new two-wheel trend. They combine the advantages of a bicycle with a high level of comfort. This bicycle type is particularly recommended for rough terrain, as even inexperienced riders can manage longer distances and steep hills on them. Travel without breaking a sweat with the electric bike!



3 TRANSPORTATION WITH BICYCLES - NO PROBLEM



You can also use your bicycle to transport your children, your shopping, heavy luggage, office equipment etc. from A to B. Various trailers, baskets and bags are available for a wide variety of

requirements. Transportation is even easier when combined with an electric bicycle. Cargo bikes are ideally suitable for transporting large items.



4 COMFORTABLE TRAVEL ON PUBLIC TRANSPORT

In addition to your daily commute to work and back, public transport can also be an attractive travel alternative for leisure activities, shopping and holidays. It's easy to find out details about your connections while on the move by using the relevant apps and buying tickets immediately.







Info:

www.vvt.at / www.oebb.at / www.ivb.at

See more of the country:

Use any of the public transport services in the Tirol with the Tirolticket, available for only € 490 per year.

DISCOUNTS

Those who receive compensatory allowances in the Tirol can buy a *Sozialticket for EUR 270 per year*. Children (up to the age of 15), young people (up to the age of 20), those with disabilities and seniors can receive discounts on individual and day tickets.

SPARSCHIENE

OEBB offers a *Sparschiene ticket*, which allows you to travel for as little as EUR 9.00, starting from a distance of 150 kilometres.

6 CONSCIOUS LIVING

HIGH ENERGY EFFICIENCY ON PUBLIC TRANSPORT Energy use in operation in kilowatt hours Greenhouse gas emissions in kilograms (operation and fuel production) emissions: OKA (ÖBB) journey powered car* *All CO₂ emissions are upstream.

IN THE CAR

5 SAVING FUEL

If you own a car, these tips could help you reduce your fuel consumption by up to 15%. Basically, however, you should try to make as many journeys as possible on foot, on a bike or on public

transport, as this is cheaper and better for the environment. Even though it often seems cheap to buy a car, ongoing costs for repairs and fuel can prove to be very high.

Tips for saving fuel:

Drive off immediately

Don't sit there with the engine running.



Change gear in good time

The higher your speed, the higher the fuel consumption.



Check tyre pressure

High tyre pressure reduces consumption.



Avoid unnecessary loads

Heavy loads (e.g. roof racks) increase consumption.



Reduce power use

Only turn on the air-conditioning system, rear window heating etc. when necessary.







Avoid short journeys in the car It is often cheaper and more relaxing

to make short journeys on foot, on a bike or on public transport.





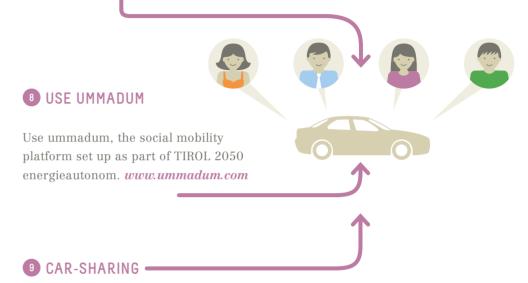
CONSCIOUS LIVING



7 START A CARPOOL

Start carpools with your colleagues and friends. This makes it easier to find parking spaces each day and will also save you money.

Use carpool forums on the Internet. You can find suitable groups specifically for your region on Facebook.



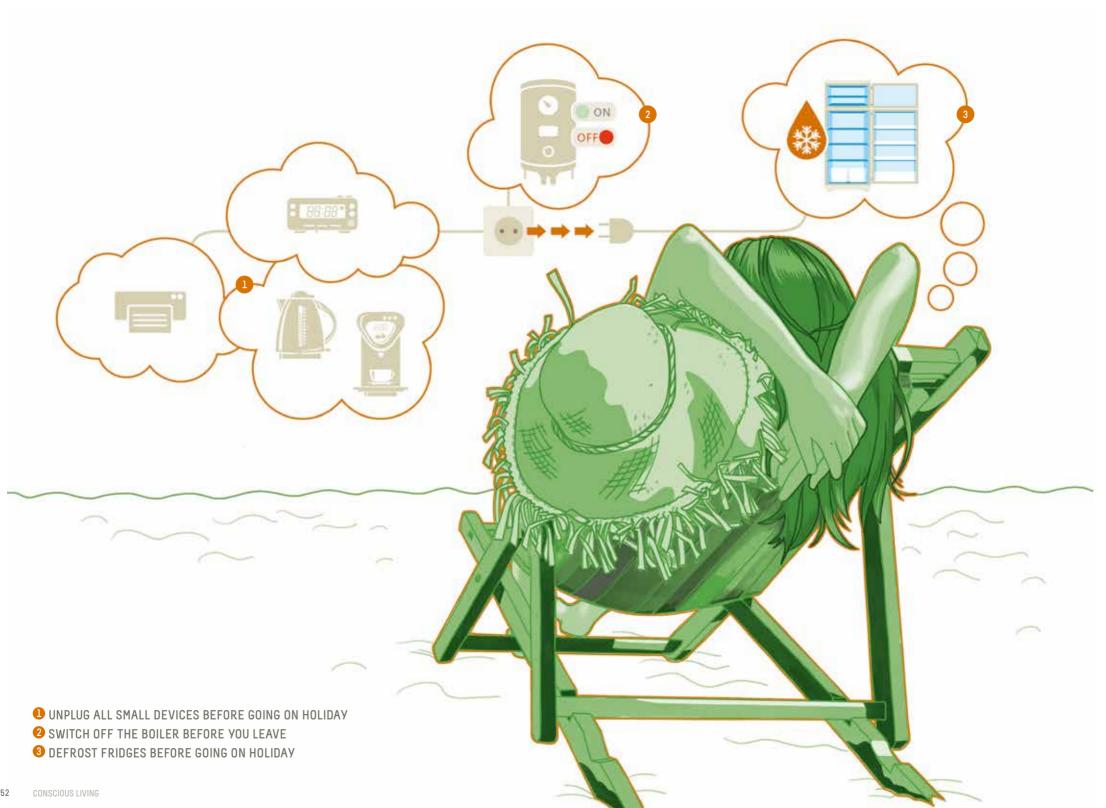
With car-sharing, you can avoid the need for your own car, but still have use of a car when necessary. The option for joint car use already exists in some communities in the Tirol.

Speak to your local community to find out more.

SPEED MAKES A DIFFERENCE

By driving at 100 km/h instead of 130 km/h ...

- ... You save 21% in terms of fuel/CO2
- ... You cause 33% less nitrogen oxide emissions
- ... You cause 24% less particle emissions
- ... You cause 41% less noise
- ... You reduce braking distance by 41%
- ... You reduce impact force by 41%

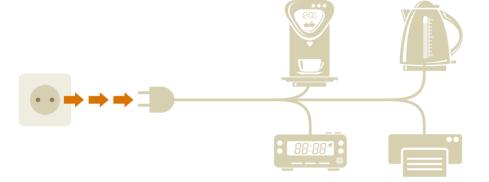


IF YOU ARE AWAY FROM HOME FOR MORE THAN THREE DAYS

UNPLUG YOUR DEVICES

If you are away for a few days, you must unplug all small devices (computer, TV, floor lamps, radio alarms,

electric toothbrushes etc.). This will reduce your electricity consumption.



2 SWITCH THE BOILER OFF

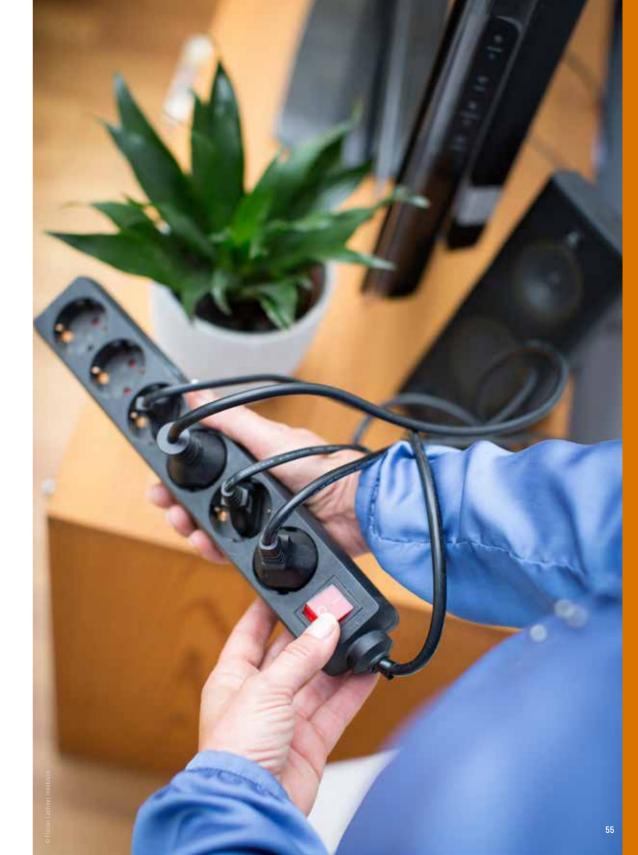
You should also switch your electric boiler off. Heat the water in the boiler to the right temperature as soon as you get home – to at least 65°C. This will kill off any legionella bacteria that may have multiplied in the boiler in your absence.



3 DEFROST FRIDGES BEFORE GOING ON HOLIDAY

Away for a longer period of time? Defrost the fridge and freezer compartment. This can reduce your electricity consumption. Leave the fridge doors open so that no mould builds up.







FOOD

BUY LOCAL FOOD

Look at local offers and eat seasonal produce. Try to buy organic products where possible. This will help avoid long transport routes and energy consumption as the result of lengthy storage periods. These products usually also taste better and contain more vitamins.



2 SIMPLY ORDER DIRECT FROM THE FARMER

Health food shops and many fruit and vegetable retailers buy their goods from local businesses. You can find regional and seasonal products at fair prices at farmers' markets and farm shops.



www.bit.ly/Bauernmaerkte





3 AVOID PACKAGING WASTE

If you have the choice, go for unpackaged food or products in reusable packaging. The environment will thank you for it.

4 REDUCE MEAT CONSUMPTION

Meat is a significant contributor to the CO2 footprint. Almost a fifth of all greenhouse gases (approx. 18%) come from livestock production – more than all the cars, lorries, ships and planes put together.

















5 CORRECT STORAGE

The bottom of the fridge is the coolest place and the temperature rises as you move up the shelves. You should therefore store cooked and baked food at the top, milk products such as cheese and yoghurt in the middle and meat, cold

meats and fish at the bottom. Most domestic vegetable types should be stored in the fridge, except for tomatoes, potatoes, courgettes and squashes. Bread also remains fresh for longer in a dry bread bin than in the fridge.

6 PLAN YOUR SHOPPING RIGHT - USE A SHOPPING LIST

Plan your shopping trips well so that you end up throwing less food away. Write a shopping list at home before you leave, having taken a quick look in the fridge.

ENVIRONMENTALLY FRIENDLY CONSUMPTION

1 ENVIRONMENTALLY FRIENDLY PRODUCTS WITH QUALITY LABELS

Independent organisations offer quality labels that indicate a certain minimum

standard in terms of production.



Umweltzeichen

(Austrian Ecolabel)



Fairtrade label





(AMA organic seal)





hon DEEC I

PEFC label

However, there are also statutory quality labels such as the energy label.

8 SECOND-HAND PRODUCTS AND RE-USE

You can find a wide range of used products at flea markets or on the Internet.

The website *www.wenigermist.at* has a list of links to useful online portals.

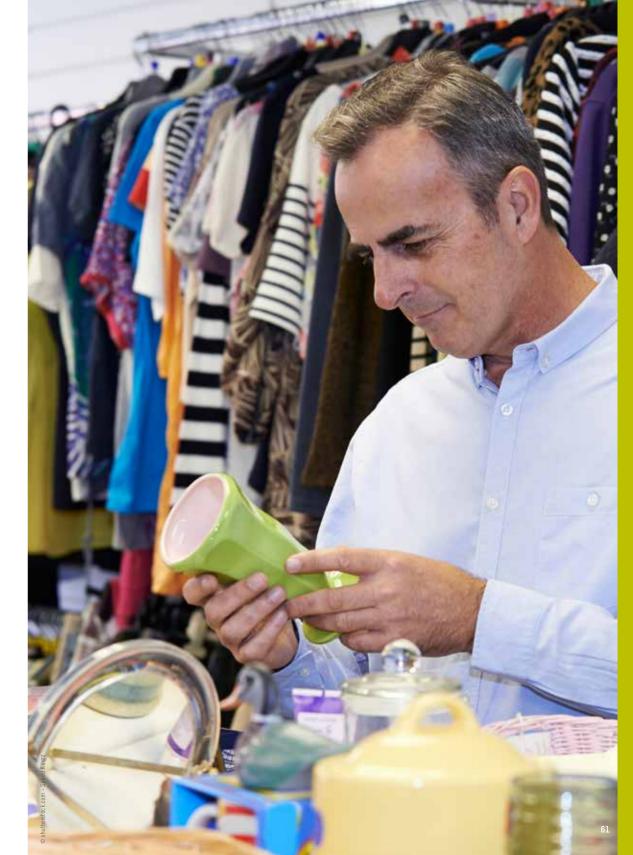
9 ORGANIC FASHION

Biological and fair manufacturing and regional production are a major focus in

eco-fashion. Using clothes for longer is more ecological and saves money too.

110 USE LOCAL CRAFTSPEOPLE

The long lifespan of handmade items not only saves you money in the long term; there is generally very little difference in terms of price and you get customised high-quality goods, while the jobs and money earned stay within the region.





SAVE MONEY AND WASTE

SEPARATE WASTE

Save residual waste costs by separating your waste.



2 UNSUBSCRIBE FROM UNWANTED ADVERTISING

If you no longer want to be annoyed by unwanted advertising material coming through your door, simply unsubscribe. You could save up to 100 kg in paper waste.



3 REPAIR ITEMS INSTEAD OF THROWING THEM AWAY

This saves money, raw materials, energy and waste. Repairing items is far more environmentally friendly than manufacturing a new product. Repair cafés are held regularly in many locations in the Tirol, where you can ask voluntary craftspeople to repair broken items.
When and where?
www.repaircafe-tirol.at
www.reparaturnetzwerk.at



AVOID WASTE WHEN SHOPPING

4 GO SHOPPING WITH A SHOPPING LIST

Only buy what's on your shopping list. Avoid having to throw away food that is still in its original packaging or that has gone off.



5 AVOID SMALL PACKAGED ITEMS

Small items actually use far more packaging material. Although these products often look enticing and practical, they are often more expensive in comparison to larger packs.



6 USE SHOPPING BASKETS AND FABRIC BAGS INSTEAD OF PLASTIC BAGS

Fabric bags are more stable than traditional plastic bags and can be reused over and over again.



