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Savings on Utility Bills
Protect the Environment





The most obvious way to reduce your utility bills is easy: Use energy efficient appliances and adopt energy efficient practices. With a little effort and not much more money, most people could substantially reduce their bills.

Introduction

The residential building sector in Albania consumes approximately 25% of the total energy consumption and almost 54% of the total electricity consumption¹ thereby reducing the economic output and increasing the cost of electricity supply primarily due to increased imports in the winter season.

No widespread investments have been taken place from households to reduce their energy costs. Still, a large number of households are not insulated. On average, a household spends 4% of its total budget, on energy consumption, this number increases to 9% for households living below the relative poverty threshold². Low awareness on the benefits of investing in energy efficiency measures, coupled with lack of access to capital and the ability to pre-pay for such investments, present further obstacles to households in effectively increasing their energy efficiency. However, a lot of progress is expected under the National Energy Efficiency Action Plan in improving residential energy efficiency through upgrades to the building thermal envelope, upgrades to energy efficient equipment, behavioral change, and greater utilization of more efficient heating sources.

This brochure suggests some simple ways to reduce your utility bills at your house.

¹ *Yearly Energy Balance for 2016, INSTAT.*

² *Jorgoni, Elira (2020). ESPN Thematic Report on Access to essential services for low income people – Albania, European Social Policy Network (ESPN), Brussels: European Commission.*

³ "Is Energy Efficiency Cost-Effective? | EnergySage." <https://www.energysage.com/energy-efficiency/why-conserve-energy/cost-of-ee/>

1. Purchase energy efficient appliances

When purchasing an appliance, you should pay attention to the initial purchase price and the annual operating cost. Although energy efficient appliances may cost more to buy, their operating costs are often 9-25% lower than conventional models³.

Most white goods and common kitchen appliances carry a label with an energy-efficiency rating. Energy labels show how the appliances rank on a scale from A to G according to its energy consumption. Class A (green) is the most energy efficient and Class G (red) the least (This energy rating system applies from 2021 onwards to EU).

Fridges and freezers: Fridges and freezers work non-stop, so it is very important to get good ones. An energy efficient fridge / freezer consumes up to 60% less electricity than an energy inefficient model⁴.

Dishwashers: An energy efficient dishwasher is also worth looking out for next time you need a new one, since it uses approximately 30% less than an inefficient dishwasher⁵.

Washing machines: An energy efficient washing machine could cut your energy consumption by up to 25% of what your old machine uses⁶.

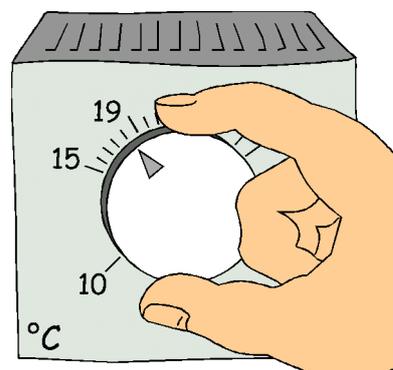
Air Conditioners: An energy efficient air-conditioner can save 20-40% energy in comparison with an energy inefficient model. Moreover, an energy efficient model is usually of better quality and lasts longer⁷.

2. Adopt more energy efficient practices

There are also a number of no cost practices you can adopt to use energy more effectively and reduce your energy bill:

Heating:

- Turn down the thermostat by just 1°C to reduce the cost of your heating bill by about 10%. When you go to bed switch off the heating or set the thermostat to 18°C or less⁸.
- Set your heater to switch off when you leave the house. Turn off the heating in unused rooms.
- Use of electricity for heating purposes is expensive⁹. However, if you have no alternative, air conditioners are best. These consume one third of the energy used by standard electrical heaters.



Air Conditioning: There are a few useful principles to bear in mind in optimizing use of ACs.

- Set the temperature settings to 26°C or higher. Remember that relatively high temperatures are comfortable with ceiling fans.
- Switch off the AC when leaving the house. Always close all doors and windows when the AC is switched on, and do not cool unused rooms.
- AC units need to be properly installed with the external split unit as close as possible to the internal unit and with all pipes very well insulated.
- ACs also need to be maintained regularly, otherwise their performance drops dramatically. Ask a professional technician to clean the filters, and check and add refrigerant if necessary. It is recommended to call in a maintenance man once a year and when you feel that your AC has lost its effectiveness.

Shading:

- Place shades outside your windows especially on south facing and other facades exposed to the sun in order to reduce the heat of sun entering the room in summer. Shading may save typically 14% to 48% or more of the cost for cooling, depending on the size and orientation of windows¹⁰.
- External shading is much more effective. If this is not applicable, use light coloured curtains to



reflect as much as possible the sun rays entering the room.

Sealing:

Reduce air draughts from windows and doors. Pull curtains, plug holes around windows or doors to reduce escaping warm or cold air. This can significantly reduce the amount it costs to make your living area comfortable.

Lighting:

- Turn off lights when leaving a room.
- Invest in energy saving light bulbs like LEDs. LED bulbs are much more energy efficient than CFL and incandescent bulbs. LEDs are able to cut the energy use by 75% and last 25 times longer, than incandescent lighting¹¹. They also now come in a lot of different shapes and sizes.



Hot water:

- Solar water heating systems usually cost more to purchase and install than conventional water heating systems. However, they can decrease a household's water heating bills by 50%–80%¹²
- Set the thermostat to less than 60°C for a comfortable temperature and lower bills.
- By conserving hot water, you conserve both water and electricity.

Washing machines:

- Wash at lower temperatures to reduce your costs.
- Try to always run a full load rather than two half loads, since your machine will use the same amount of water and energy no matter how full it is.

Fridges:

- For optimum use, set the fridge thermostat to 5 - 6° C and of the freezer to -18 oC.
- Locate the fridge away from direct heat (e.g. a stove or sunlight) to help it perform more efficiently
- Don't place hot food in the fridge. Leave it first to cool down.

- Make sure the door seals tightly. Otherwise maintain it immediately.
- Bear in mind that an iced up freezer will use more energy than when it's ice free, in fact just 2 mm of ice means the appliance consumes 10% more energy¹³.

Cooking:

- Only boil as much water as you need and use saucepan lids to bring the water to the boil more quickly and efficiently.
- Turn off the electric hot-plates and ovens 5-10 min before cooking is completed.
- Refrain from opening the oven door often.
- Make sure that the cooking pots are of the same diameter as the hot-plate and have good contact.
- To heat small quantities of food the microwave oven is more efficient than the stove¹⁴.

Standby appliances are thieves of energy:

We have many devices in a home and all continuously steal small quantities of energy that all adds up to significant amounts every year. It is estimated that by 2030, 15% of the total appliances electricity consumption in Europe could be due to standby functions¹⁵.

So, turn off the main power switch or unplug the socket when not using items to save energy. Don't leave appliances on standby or appliances charging unnecessarily. Do not leave chargers plugged in when not in use.

Why not simply make energy more affordable?

By making energy efficient choices and adopting good practices, you can substantially reduce your consumption without sacrificing your convenience, put more money in your pocket, protect the environment and reduce global warming.

⁴ AHAM (2010). *Today's energy standards for refrigerators reflect consensus by advocates, industry to increase appliance efficiency*. Press release, Association of Home Appliance Manufacturers.

⁵ Hoak, D., Parker, D., Hermelink, A., "How Energy Efficient are Modern Dishwashers", *Proceedings of ACEEE 2008 Summer Study on Energy Efficiency in Buildings*, American Council for an Energy Efficient Economy, Washington, DC, August 2008.

⁶ "Energy Efficient Washing Machine | ENERGY STAR." https://www.energystar.gov/products/appliances/clothes_washers

⁷ "You Asked, We Are Answering: Your Home Efficiency Questions | Department of Energy, USA." <https://www.energy.gov/articles/you-asked-we-are-answering-your-home-efficiency-questions>, September 2012.

⁸ "Thermostats | Department of Energy, USA." <https://www.energy.gov/energysaver/thermostats>, June 2017.

⁹ Papakostas, K. & Martinopoulos, Georgios & Papadopoulos, Agis. (2015). *A Comparison of Various Heating Systems in Greece Based on Efficiency and Fuel Cost*.

¹⁰ *Solar Shading Impact*, National Energy Foundation, UK, June 2016.

¹¹ <https://www.energy.gov/energysaver/save-electricity-and-fuel/lighting-choices-save-you-money/led-lighting>

¹² *Estimating the Cost and Energy Efficiency of a Solar Water Heater | Department of Energy, USA.* <https://www.energy.gov/energysaver/estimating-cost-and-energy-efficiency-solar-water-heater>

¹³ "How to reduce the power consumption of my refrigerator and freezer? – Energiguide." <https://www.energiguide.be/en/questions-answers/how-to-reduce-the-power-consumption-of-my-refrigerator-and-freezer/2132/>.

¹⁴ "Stove versus Microwave: Which Uses Less Energy to Make Tea? - Scientific American." <https://www.scientificamerican.com/article/stove-versus-microwave-energy-use/>, June 2009

¹⁵ IEA (2020), *Appliances and Equipment*, IEA, Paris <https://www.iea.org/reports/appliances-and-equipment>

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