

SIEMENS

Home appliances that save resources through innovation.



Source of electricity

Electricity is a basic part of nature and it is one of our most widely used forms of energy. We get electricity, which is a secondary energy source, from the conversion of primary sources of energy, like coal, natural gas, oil, nuclear power and other natural sources.

Every time we burn these sources, green house gases such as carbon dioxide, methane and nitrous oxide are released into the atmosphere. Out of these gases the concentration of carbon dioxide is the highest. In a natural carbon cycle, carbon dioxide is re-absorbed by plants and trees. However, we are burning fuels where the carbon dioxide has been trapped under the earth's surface for millions of years, and we're doing it so quickly that plants and trees that are alive now have no chance of soaking it up and it doesn't help if we're cutting down rainforests as well.

Main sources leading to the emissions

The main sources of green house gas emissions are:

- Stationary Sources which include smoke stacks of power plants, factories as well as furnaces and other types of fuel-burning heating devices.
- Mobile Sources which include motor vehicles, marine vessels, and aircraft are also responsible.

Additionally stoves, incinerators, and farmers burning their crop waste produce carbon monoxide, carbon dioxide, as well as particulates. Other human-made sources include aerosol sprays and leaky refrigerators, as well as fumes from paint, varnish, and other solvents.





Home appliances also contribute to carbon emissions

Although the contribution of home appliances to carbon emissions is meager, they do indirectly participate in the carbon emissions. A home appliance comes with 2 price tags, first is the cost of the appliance and second is the electricity costs, to an extent that the electricity consumption costs of home appliances can add up to more than the initial purchase price and will have an impact on the electricity bill for years to come. Considering energy use in addition to purchase price and product features will not only save money and energy as well as reduce greenhouse gases over time, which will further reduce the environmental impact without making a difference to our lifestyle.

Siemens home appliances and its contribution to the protection of the environment

Siemens constantly works on innovations that increase the efficiency of household appliances. Over the last 15 years energy and water consumption values in all categories of home appliances have been reduced by over half. At the same time, no compromise has been made on the performance and ease of use. The technologies that are developed through constant work on innovations and enhance the energy efficiency aspects of a home appliance have been highlighted below.

1. Washing Machines:

- Master Class i- DOS

In most washing machines more water is required during the rinse cycle to wash off the excess amount of detergent. The intelligent dosing system “i- DOS” of the Siemens Master Class washing machines which automatically calculates and dispenses detergent amount for any laundry is an exclusive feature that not only helps in saving detergent but also helps in the efficient use of water.

- iQdrive

It is a known fact that motors consume maximum energy when an appliance is switched on and is in use. The iQdrive technology in Siemens washing machines is a brushless magnetic drive which provides years of service. This revolutionary design has resulted in an extremely reliable high-output motor whose

innovative magnet technology activates the iQdrive in a frictionless way, hereby saving energy and providing optimum performance.

- Load sensor

Only a fully loaded washing machine is confined to energy saving is a thing of the past. The Load Sensor function detects the amount of laundry in the washing machine and ensures that precise amount of energy and water are used for washing, based on the load.

2. Dishwashers:

- Zeolite® drying (Dishwasher)

The first and only dishwasher with the Zeolite® technology which has a special container of zeolite, a mineral with the ability to store moisture and energy. It dries the dishes after the cleaning cycle by absorbing the moisture from the air in the dishwasher’s interior. During the next cleaning cycle, the zeolite is heated up and the moisture released so that it is ready for the next drying cycle. Zeolite speeds up the drying process, considerably reducing cycle times with brilliant drying results. It lasts as long as the life of the dishwasher and never needs to be replaced.

This technology has been awarded the “Innovation Prize for Climate and Environment” in the category “Product and service innovations for climate protection” by the German Federal Minister for the Environment, in Berlin.

3. Refrigerators:

Since refrigerators are a must in every home and they cannot be switched off on a daily basis, they consume maximum energy. The new iQ100 cooling range refrigerator from Siemens has set the benchmark for energy-efficiency and is Siemens’ most energy-efficient fridge freezer to date. The energy consumption of the bottom freezer refrigerator (Model No: KG39EAW40G) is as low as 17 W per hour, which can be compared to the energy consumption of an energy saver lamp. Although the high performance compressor and efficient insulation are the key factors in achieving this performance, high power LED lights in the refrigerator also play a major role. LED lights are the most energy efficient source of lighting in the market today. They are more durable and in contrast to other light sources, LED output does not require the use of mercury metals or other hazardous

materials threatening the environment. They are more environmentally friendly. Hence the use of LED lights enhances the energy efficiency feature of the refrigerator.

4. Vacuum Cleaners:

The innovative compressor technology[®] now makes the newest generation of Siemens vacuum cleaners even quicker with 2 models in the VS07 and VS08 series. A novel blower with aerodynamic blade wheels improves airflow so that more dust can be taken in. Even with its maximum cleaning power of 2,400 watts the blower actually reduces the energy requirement by up to 30 percent. An optimized compressor motor generating high airflow rates with low input power. It also minimizes air resistance in the whole system through air flow control system[®].

Resource- efficient products

By developing low consumption home appliances, Siemens makes a decisive contribution to protect the environment. The consumption figures have been reduced drastically as compared to 15 years ago. With super efficient appliances (the ecoPLUS collection), Siemens household appliances have the highest EU energy classifications and many considerably exceed those standards. The ecoPLUS label is found on the best Siemens appliances as a sign of extreme energy efficiency and low use of resources. This further plays an important role in reducing the green house gases.

At the factory sites the emissions from the consumption of oil and gas and indirect emissions from its use of electricity are also measured. Siemens home appliances are also actively involved in calculating the carbon footprints, which stands for direct and indirect carbon emissions caused by a company.

Energy saving tips for home appliances:

1. Washing

- Wash with the special programmes designed for specific fabrics or soiling levels. These are optimized for the most economical use of energy and the best washing results.
- Use modern automatic load sensor. Whether 1 or 8 kg of laundry, your machine sets the optimum combination of resources for a perfect wash.
- Use waterPerfect feature which has an intelligent water management and uses optimal amount of water for every cycle and every load

2. Dishwashing

- Use the Eco dishwashing programme
- Set your dishwasher to work nights – with the start delay option
- Use the half load function in case of less number of utensils

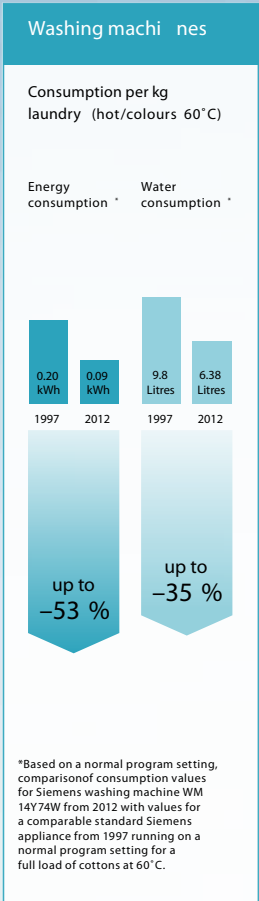
3. Refrigeration

- Energy is lost every time you open your refrigerator door. So don't open your fridge more often than you really need to, and don't leave the door open for any length of time.
- If possible, place your refrigerator or freezer in a cool position, protected from direct sunlight. Also avoid placing it too close to radiators, ovens or dishwashers.

4. Cooking and baking

- Hobs with cooking sensors prevent boiling over. This alone can save up to two or three times the energy usually required.
- Always cook with the lid on your pans to prevent unnecessary heat and energy from being lost.

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Save energy with Siemens home appliances.

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