

How to Save Energy and Lower Your Utility Bills with HVAC in Extreme Heat

When summer gets hot, your air conditioner (AC) works overtime to keep your home cool. But that also means higher energy bills. The good news is: you can stay comfortable **and** save money by using your HVAC system the smart way.

In this guide, we'll walk you through **practical tips** to reduce your energy use and cut your utility bills, even during extreme heat.

What is an HVAC System?

HVAC stands for: **Heating, Ventilation, and Air Conditioning**

It's the system that controls your home's temperature and airflow. In the summer, it keeps you cool using the AC part of the system. Your **thermostat** is like the brain—it tells the system when to turn on and off.

Ideal Thermostat Settings in Extreme Heat

Setting the thermostat too low can cause high energy bills and wear out your system faster. Here's a guide on how to set your **thermostat based on the outside temperature**:

Outside Temperature	Suggested Thermostat Setting (When Home)
85°F (29°C)	76–78°F (24–25°C)
90°F (32°C)	78–80°F (25–27°C)
95°F (35°C)	80–82°F (27–28°C)
100°F (38°C)	82–84°F (28–29°C)

If you leave the house for several hours, raise the thermostat by **5–8 degrees** to save energy. You can lower it again when you return.

 **Tip:** The U.S. Department of Energy recommends setting your thermostat at **78°F (26°C)** when you're home and higher when you're away.

Don't Place Heat-Producing Devices Near Your Thermostat

Your thermostat measures the temperature of the air around it. If it senses heat, it thinks your whole house is hot and will **run the AC more than needed**.

Avoid placing these near your thermostat:

- Lamps
- TVs
- Computers
- Kitchen appliances

Keep these heat-producing items at least a few feet away from the thermostat. That way, it reads the **real** temperature and keeps your AC from overworking.

Keep the Sun Out

Sunlight streaming through windows looks pretty, but it **heats your home fast**. This makes your AC work harder.

Here's how to block out the heat:

- Close **blinds and curtains** during the hottest part of the day.
- Use **blackout curtains** or **thermal shades**.
- Apply **reflective film** to windows facing the sun.

Use Fans the Smart Way

Ceiling fans and **box fans** help circulate cool air and make you feel cooler.

Here's how to use them right:

- Set ceiling fans to spin **counterclockwise** in summer.
- Turn off fans when you leave a room—they cool **people**, not air.

Fans use less energy than your AC, so using them together lets you set your thermostat a few degrees higher **without feeling warmer**.

Clean or Replace Your Air Filters Regularly

Dirty filters block airflow, making your system work harder and **use more energy**.

What to do:

- Check your air filter and replace or clean it **at least every 3 months**, depending on your filter type and whether you have pets or allergies.
- Use less restrictive filter (Use MERV 8 or lower) to improve airflow across the indoor coil.

A clean filter means better airflow, cooler air, and lower energy bills.

Seal Air Leaks and Insulate

If your cool air is escaping, your AC will run more—and cost you more.

Check for leaks:

- Around windows and doors
- In attics and basements
- Where pipes and wires enter the home

Fix leaks with:

- **Weatherstripping** around doors and windows
- **Caulk** for cracks and small gaps
- **Insulation** in attics and crawl spaces

A well-sealed home keeps cool air in and hot air out.

Use Heat-Producing Appliances Wisely

Appliances like ovens, dryers, and dishwashers create heat that makes your AC work harder.

Here's how to reduce that:

- Use the microwave or air fryer instead of the oven
- Run appliances at night when it's cooler
- Hang laundry to dry if possible

Go Easy on Thermostat Changes

Don't constantly adjust the thermostat up and down. Your HVAC system works best when it runs **consistently**.

If you suddenly lower the temperature by 10°F, it **doesn't cool faster**—it just **runs longer**, wasting energy. Set a reasonable temperature and give the system time to work.

Cool at Night Naturally

When the sun goes down, temperatures often drop outside. Use that to your advantage.

Nighttime cooling tips:

- Open windows if it's cooler outside
- Use a fan to bring in the cool air
- Close windows and blinds again in the morning

This natural cooling can give your AC a break and reduce your energy use.

Summary: Top HVAC Energy Saving Tips

1. **Set thermostat to 78°F (26°C)** when home
2. **Raise thermostat when away**
3. **Keep heat-producing devices away** from thermostat
4. **Block out the sun** with curtains or shades
5. **Use fans** with your AC to feel cooler
6. **Clean air filters** every 3 months
7. **Seal air leaks** and improve insulation
8. **Use appliances at night** or during cooler hours

References Used in the Guide

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