Energy Reduction Guide

For unit owners and renters in McLean Gardens



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Why We Must Reduce Our Energy Use

In its <u>Sustainable DC Plan</u>, the
 District of Columbia committed to
 reduce greenhouse gas
 emissions. The Buildings sector
 accounts for 75% of the District's
 greenhouse gas emissions, which
 led the DC Department of Energy
 and Environment (DOEE) to



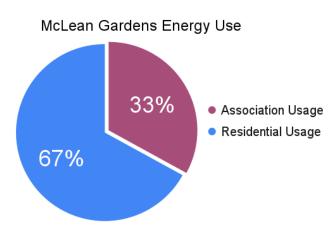
establish **Building Energy Performance Standards** (BEPS).

 BEPS sets a minimum level of energy performance for multifamily buildings, such as those McLean Gardens, and calculates an ENERGY STAR Score for each property based on its energy consumption.

- BEPS requires that multifamily buildings achieve a minimum ENERGY STAR Score of
 66. McLean Gardens received a score of 55.
- McLean Gardens must achieve an ENERGY STAR Score of 66 by the end of BEPS Cycle
 1, which is December 31, 2026.
- To demonstrate a full year of improved efficiencies, all energy efficiency projects need to be completed by December 31, 2025. More details about BEPS can be found in the BEPS 101 section at the end of this document.
- If McLean Gardens makes no improvements, the fine issued by DOEE may be as much as \$2,000,000.
- Improving our ENERGY STAR Score will require energy efficiency improvements in the common elements and in our units.

Residential Energy Usage

Resident energy usage in Mclean Gardens accounts for approximately 67% of total consumption, while consumption on Association-owned equipment accounts for 33%.



Top 5 Energy Consumers

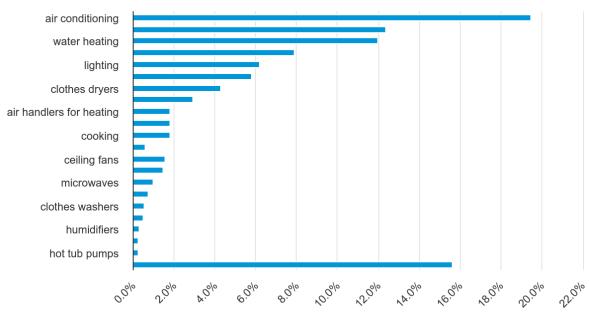
According to the Energy Information

Administration (EIA), in 2020 the average U.S. household used the most energy on these top 5 activities:

- 1. Air conditioning: 19% of annual energy use
- 2. **Space heating:** 12% of annual energy use
- 3. Water heating: 12% of annual energy use
- 4. **Refrigerators:** 7.9% of annual energy use
- 5. **Lighting:** 6.2% of annual energy use

Residential site electricity consumption by end use, 2020





eia Data source: U.S. Energy Information Administration, 2020 Residential Energy Consumption Survey

Things You Can Do for Free or Almost Free

No-cost or very low-cost ways to save energy

Take Action!

Treat electrical consumption as you would a running faucet - just as you turn off the water faucet when you are done with the water, turn off any electrical device when you are done with it!

Optimize Use of Curtains and Blinds

- Winter: Open curtains on the south-facing windows during the day to allow sunlight to naturally heat the home, and close them at night to reduce the chill from cold windows.
- Summer: Close curtains on the south-facing windows during the day to prevent sunlight from heating the home.

Take Advantage of Cool Nights in the Summer

• **Summer:** Take advantage of those rare times when it's cooler outside and open your windows instead of using air conditioning.

Windows

- Close your storm windows in extreme weather to provide another layer of insulation.
- If you have trouble opening or closing windows or need other repairs, please submit a ticket via Building Link for assistance.

Weatherize Your Windows and Doors

- Add caulk or weatherstripping to seal air leaks around drafty doors and windows.
- Use a draft stopper under the front door to your unit to prevent unconditioned air from the hallway seeping into your unit.
- Winter: Use a heavy-duty, clear plastic sheet on a frame or tape clear plastic film to the
 inside of window frames during the cold winter months. Make sure the plastic is
 sealed tightly to the frame to help reduce infiltration.
 - Place removable draft stoppers under your doors. (You can take these with you when you move.) Or, if there's a gap between your window sash and the sill, buy a piece of foam from the hardware store, place it on the sill and close the window on it to seal the crack.

Set Your Thermostat

- If you have a smart or programmable thermostat, take the time to set it up and learn how it works, so you aren't unnecessarily cooling or heating your house while you're away.
- **Summer:** for maximum energy savings, <u>Pepco recommends</u> setting your thermostat between 75 and 80 degrees. It will reduce the energy used to cool your unit. Small USB-powered fans can help keep you cool and comfortable.
- **Winter:** for maximum energy savings, <u>Pepco recommends</u> setting your thermostat at 70 degrees when you are home during the day, and lower it to 65 degrees at night. If

- you go on vacation, set the thermostat to 55 degrees while you're gone. This will reduce the energy needed to heat your unit. A nice sweater or cozy blanket can go a long way!
- When you return home, don't immediately crank up the heat or AC. This won't heat or
 cool your home faster; it will only force your system to work harder and use more
 energy. Instead, set your thermostat per the seasonal guidelines above and, if you
 must change the temperature, do it a couple degrees at a time.
- Avoid placing lamps or TV sets near your thermostat. The thermostat will sense the heat these appliances create, which can cause your A/C to run longer than necessary.

Use Your Fans Wisely

- Ceiling fans cool people, not rooms. Don't forget to turn your fan off when the room is unoccupied. Most ceiling fans have a switch or chain that will change the blades' direction.
- **Summer:** make sure your ceiling fan is spinning counterclockwise in the summer to create a downward draft. The draft on your skin will make you feel cooler such that a higher set point will be more comfortable than it would be without that breeze.
- **Winter**: make sure your ceiling fan is spinning clockwise on a low setting, so it pushes down the warm air that has risen to the top,

Maintain Your Heat-Pump HVAC

- Maintain a moderate setting or use a smart thermostat. Heat pumps work most efficiently when they're able to heat or cool your home gradually.
- Schedule routine service for heat pumps.
- Replace air vent filters once a month or as needed.
- Be careful not to block vents with furniture, which will make your HVAC work harder and use more energy.

Reduce Heat-Producing Activities on Hot Days

On hot days, minimize activities that generate a lot of heat, such as running a
computer when not actively in use or using hot devices such as hair dryers. Also keep
this in mind while cooking - try to avoid using the oven during the hottest parts of the
day, and instead cook on the stove, use a microwave oven, or grill outside.

Reduce "Phantom Energy"

- Unplug items when you're not using them. Phantom energy or power used by
 devices that still consume energy while plugged in and not in use, such as televisions,
 microwaves, or phone or computer chargers can make up as much as 20% of your
 monthly electricity bill.
- Unplug devices before going on vacation or business trip. The printer, coffee maker, toaster, tea kettle, home computer, etc. would also appreciate a break!
- Plug nearby devices into a power strip, making it easier to switch everything off at once when you're not using them.
- Set computer monitors go into sleep mode when not in use. Sleep mode, when activated, greatly reduces energy consumption. And, when they are not being used, turn off your computers and printers completely.

Check Your Water Heater

• Keep the temperature of the water heater to the warm setting (120°F). This will not only save energy, it will also help avoid scalding.

Conserve (Hot) Water

- Reduce your hot water use. Every time you use warm or hot water, your water heater uses energy to replace the hot water you used.
- Use your dishwasher instead of handwashing! It uses less energy and water than
 washing dishes by hand. For most newer dishwashers, there's no need to rinse your
 dishes beforehand simply scrape off any excess food.

Wash in Warm or Cold Water

- Wash your clothes using cold water whenever you can. Avoid washing your clothes
 using hot water it takes more energy to heat the water.
- Consider doing laundry early in the morning or later in the evening to avoid adding hot air to your home at the hottest points in the day.

Help Your Clothes Dryer Out

- Although air-drying your clothes using a rack or line is the most energy-efficient
 method, you might not have the space to do that. If that's the case, try throwing a dry
 towel (or wool dryer balls if you have them) in the dryer with your wet clothes to help
 cut down the overall time for clothes in the dryer.
- Clear lint from your clothes-dryer's lint screen after each cycle. This will reduce how hard your dryer will need to work to move air through the machine.
- Have a flexible dryer hose? Replace it with smooth metal ducting to improve air flow, dry clothes faster, and reduce drying energy use.

Check In and Around Your Fridge

- Vacuum behind the fridge and clean the coils to help the fridge diffuse heat better and run more efficiently.
- Make sure products aren't blocking the fan vents inside the fridge and freezer.
 Obstructing the vents will force your fridge to work harder and use more energy.

Things You Can Buy

Looking to upgrade? There are several energy saving measures that you can purchase.

LED Lights

- Swap out incandescent light bulbs for LEDs. LED bulbs use 75 to 80 percent less
 energy than incandescents and could save you between \$60 and \$125 for each
 installed bulb over its lifetime, according to Consumer Reports. If you're feeling
 overwhelmed by all the bulbs you'd need to replace, try starting with the five lights you
 use most frequently.
- Store the original lightbulbs in a bag, then swap them back in when you move, so you can bring your LEDs with you.
- Choosing a LED light bulb: When it comes to picking the color of the light you want, there are a lot of choices. LED light warmths are measured in Kelvin (K), with warmer whites measuring around 2,700K, and cooler whites measuring near 5,500K. The higher the number, the cooler the white. The Kelvin rating only refers to the color of the light, not its energy use. LEDs are incredibly efficient, so pick whichever color you prefer!



Low-Flow Shower Heads

 Look for the EPA's <u>WaterSense</u> label on water fixtures. WaterSense shower heads use less than 2 gallons per minute compared to a standard shower head, which goes through 2.5 gallons of water a minute!

Weatherization Materials for Windows & Doors

Place removable draft stoppers under your doors. (You can take these with you when
you move.) Or, if there's a gap between your window sash and the sill, buy a piece of
foam from the hardware store, place it on the sill and close the window on it to seal the
crack.

Smart Devices

- Smart thermostats: Smart thermostats allow you to set schedules and control your
 thermostat remotely using a smartphone or tablet. Smart thermostats can also be
 paired with temperature sensors. These sensors can be placed in other areas of your
 unit to ensure that your HVAC is only working to heat or cool specific places like a
 bedroom, loft, or lower level.
- Smart plugs or powerstrips: Smart plugs and powerstrips can connect to a smart-home assistant or an app to allow you to turn devices on and off remotely, so you'll never accidentally leave your light on while you're at work again.

ENERGY STAR Appliances

- Opt for an ENERGY STAR rated appliance when it comes time to replace your dishwasher, range, fridge, HVAC, water heater, clothes washer, or dryer. Make sure to check DC's Sustainable Energy Utility (DCSEU) for rebates!
- Consider replacing your older-model refrigerator, especially if older than 10 years.

 Older models can often use over three times the energy of newer models.
- More information about ENERGY STAR can be found in the "Learn More" section at the end of this document.

BEPS 101

What is BEPS?

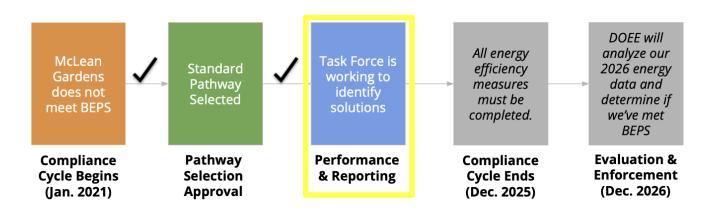
Building Energy Performance Standards, or BEPS, sets a minimum level of energy efficiency for different building types and is based on a building's ENERGY STAR score. The DC government established a BEPS program to reduce carbon emissions from the buildings sector over time, which accounts for over 70% of DC's carbon emissions.

How does BEPS work?

BEPS works over the course of several 5-year compliance cycles. We are currently in Cycle 1 and, according to a 2019 assessment issued by the DC Department of Energy & Environment (DOEE) using ENERGY STAR Portfolio Manager, do not meet the BEPS energy performance requirement for our building type. A building's energy performance is benchmarked at the beginning of each cycle. At the end of the cycle, the building's energy performance is measured against the benchmark to determine if its energy efficiency has improved. If the building has not improved, the residents are issued a fine.

Where are we in BEPS?

We are in the middle of BEPS Cycle 1. The McLean Gardens Energy Task Force is working with the Board and Gates Hudson to identify potential solutions. Resident input and feedback is encouraged. Please feel free to contact us at energytaskforce@mcleangardens.com or join us during one of our Task Force meetings.



Learn More!

Building Energy Performance Standards (BEPS)

BEPS Fact Sheet from DOEE

Carbon Footprint

 <u>Learn about how your behavior impacts your carbon footprint</u>. Reductions will reduce your consumption and save you money!

Energy Saver from the U.S. Department of Energy

Spring and Summer energy saving tips

ENERGY STAR

- General information about ENERGY STAR
- Find an ENERGY STAR Appliance

Sustainable DC Plan

• Sustainable DC 2.0 Plan

LED light bulbs for your light fixtures

Home Lighting Guide from DC Sustainable Energy Utility (DCSEU)

Reducing Phantom Energy

- How to Stop Energy Vampires from Attacking Your Home (US DOE)
- What Are 'Phantom Loads'? How to Identify Them and Save Money (Better Homes & Gardens)