

ENERGY EFFICIENCY

SUMMER GUIDE

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YOU'RE IN THE DRIVER'S SEAT

By Theresa Drake, Manager of Customer Relations and Energy Efficiency

The other day I read a quote that struck me. It said, "If we compare the average house to a car, it would have bald tires, leak and burn oil, and get about four miles to the gallon.¹" In other words, the average house is inefficient.

Most of us would not accept these qualities in a car. Why then, do many of us spend day after day and year after year in our own homes struggling with similar issues that result in reduced comfort and higher-than-necessary energy bills?

I think one reason is we are more familiar with how cars operate.

- We know efficiency is measured in miles per gallon and we get regular feedback each time we fill our tank.
- When something's not quite right, we often hear a noise or notice a bright indicator light. Sometimes, the car just quits.
- When something is wrong, we generally know who to call.

Homes are different.

- There's not a simple measure of efficiency that applies across all types of houses and families.
- The systems that deliver comfort and efficiency are out of sight, rarely flashing a warning light or making a strange noise when they aren't working right. As long as a home is standing, it generally does its basic job of providing daily protection and shelter.
- When something doesn't seem right, we may not know where to start or who to call.

Given these challenges, how can we establish reasonable expectations and recognize and act on problems quickly?

One answer is to compare historical energy use to current daily use. This gives perspective and can help spot problems early. This is easy to do now that daily and hourly electricity use is readily available in myAccount at idahopower.com.

When you access our online resources and read this guide to learn more, you will be on your way to a better understanding of what's under the "hood" of your home in no time. It doesn't take long to get familiar with the basics that will go a long way toward helping you get the most for your energy dollars and be comfortable in the spaces you choose to live and play. Idaho Power wants you to buckle up, be comfortable and enjoy the ride.



When looking for ways to save, focus on opportunities to reduce your use while maintaining the quality of life you enjoy. When a change is comfortable, it's more likely to last.



Register for myAccount at idahopower.com for 24-hr access to everything you'll need to pay your bill, get account information and understand your use.



Idaho Power respects and protects your privacy. All myAccount information is accessible only in a highly secure, password-protected environment.



¹Carl Seville, green builder, author and educator.

Your Electricity Bill's Crystal Ball

Want to know what your power bill may be before it arrives in the mail? Now you can.

Log in to myAccount at idahopower.com at your leisure and see how much electricity you have used since your last bill. You'll also see the charges to-date and find an estimate of what your next bill will be if you continue the same pattern of use. BEWARE — your projected bill changes daily so you may get hooked and become a frequent user.

Not happy with your projected bill? There may be time to reduce your use and save.

Other information in myAccount, such as hourly and daily use (found by selecting the "Hourly Usage" icon) will show your family's energy use patterns. Becoming familiar with when and how you use electricity can make it easy to identify ways to save. Does your use spike early in the morning? If so, consider how you are using electricity during that time to see what you may be willing to change. Does your use spike in the evenings? What activities happen then? Is it higher than you'd like it to be all the time? Focus on permanent energy efficient improvements to your home.

Best ways to save? Here are a few impactful suggestions.

If you have a significant increase that you can't explain: Something may be broken. Call an expert and look at electric heating and cooling equipment, water heaters and refrigerators — they're the biggest users.

For home improvements: Start with installing energy-efficient light bulbs in the most-used places. Caulk and weatherstrip around doors and windows. Get an estimate to see if your home would benefit from air sealing and more insulation.

Did You Know?

Idaho Power offers weatherization improvements for income-qualified customers living in electrically heated homes. idahopower.com/save

Did You Know?

Older fridges and freezers can use up to 3 times more energy than ones made today. Idaho Power will pick up and recycle your old working unit for free. idahopower.com/save

If you want to make a difference and are willing to make a change: Focus on the big users. Can you recycle that spare refrigerator or freezer in the garage? Can you adjust your thermostat up a few degrees and wear cooler clothing to stay comfortable? Have you enabled your computer, TV and dishwasher power-save settings? Are your electronics plugged into powerstrips that can be switched off when not in use? Do you use a clothesline or drying rack to reduce dryer use?

If you have an electric water heater: Set the temperature to 120° F and install high-efficiency showerheads. When doing laundry, wash full loads in warm or cool water (always rinse in cold). Once you start looking, you'll discover many ways to save.

Yes, electricity has a cost, but it brings comfort, safety and joy to our everyday lives. Use what you need. Use it wisely. And log in to myAccount for a preview of your next electric bill and other ways to save.

myAccount

First-time users will need these items to register:

- Account number and last payment amount (both available on your Idaho Power bill)
- Personal email address
- A username and password that you create

Learn more at idahopower.com/myaccount

WEATHER ALERT: Hot and Dry with a Chance of Higher Bills

Do you think about all the ways weather affects your life? It's common to pay attention to the weather when choosing activities or deciding what to wear — but have you ever really stopped to consider how the weather affects your energy use?

Imagine you get an unusually high or low energy bill. Is your natural response to think through the month trying to remember things you've done differently? Or do you assume something's broken or a mistake has been made? While these are possibilities, we find many people underestimate the direct impact weather — wind, cloud cover and especially temperature — can have on their bill.

Heating and cooling costs account for up to 50 percent of a home's energy use and rise or fall in direct response to the weather. Extreme temperatures, even if it's only a few days, can cause your electric bill to be noticeably higher.



Weather-Related Questions Customers Ask

Shouldn't my energy use be roughly the same each July?

The best way to understand what's normal for your home is to look at past energy use. Reviewing 3 to 5 years of history will help you see what's normal for you and how weather fits into that picture. You can access up to 24 months of historical energy use online in myAccount at idahopower.com.

The chart below illustrates how the weather (climate) in your area may affect your energy use. For example, Boise residents are likely to heat their homes 239 days a year and turn on their air conditioners 83 days. Neutral days, where no heating and cooling are required, typically fall in the "shoulder months" of spring or fall.

Average Number of Days that Require Heating and Cooling

	Heating	Cooling	Neutral
Boise	239	83	43
Halfway, OR	276	17	72
McCall/Sun Valley	292	0	73
Pocatello	269	29	67
Riggins	238	69	58
Salmon	281	0	84

Not All Years Are the Same

Weather specialists have a way of comparing year-over-year temperatures to know when we're experiencing a particularly hot summer or cold winter. Using a formula representing the amount of heating or cooling needed to keep a home comfortable, they assign magnitude to the weather. The unit of measure is called a cooling degree day (CDD) in the summer and a heating degree day (HDD) in the winter.

Since a typical home doesn't need to be heated or cooled when the outside temperature is 65° F, the CDD or HDD for a given day is equal to the variance between the day's average temperature and 65° F.

Example:

If the high on Monday was 96° F and the low was 70° F, the average temperature would have been around 83° F $[(96+70)\div 2]$.



The weather on a day with an average temperature of 83° F would have a magnitude of 18 CDDs (the difference between 83° F and 65° F).

Without degree days, comparing the energy use over two periods would be like calculating the miles-per-gallon for your car without knowing how many miles you had driven.

June–September Cooling Degree Days (CDD) for Past Five Years

	30 Yr. Average	2016	2015	2014	2013	2012
Pocatello	387	416	495	421	679	556
Twin Falls	378	447	534	491	714	514
Boise	890	969	1,216	1,095	1,273	1,214

The chart above shows Boise is hottest of the three cities and 2013 was the hottest summer in the last five years.

What if my A/C or heater was set to the same temperature all month?

You may heat your home to 68° F in the winter and cool your home to 78° F throughout the summer, but your heater and A/C will run more frequently to maintain those temperatures in extreme weather than it does in milder weather. A single degree of difference outside can alter your heating and cooling costs by three percent or more.

What if I have natural gas heat?

Even homes heated with natural gas may experience higher-than-average electricity use during the winter. Most gas furnaces rely on electric fans/blowers. The colder it is, the more electricity it takes to run the furnace.

Is it just the daily highs and lows that matter?

It's common to gauge the temperature of the day by the highs and lows. But when it comes to heating and cooling, it's not just the peaks and valleys that impact energy use — it's also the duration of the extremes. For instance, a summer day may hit 100° F but drop into the 60s or 70s during the night. This gives your A/C a break and allows your home to cool naturally. When temperatures remain high through the night or for consecutive days, A/Cs run longer and your house doesn't have a chance to cool down.

Why am I not seeing an expected change in my bill?

Billing cycles rarely match calendar months. Impacts of weather, behavior changes and even energy efficiency improvements are sometimes diluted because they are spread over two bills. And there are complexities. For example, when an efficiency improvement coincides with extreme weather conditions, the positive impact can be masked by higher energy use due to the weather. When you access your daily and hourly energy use regularly through myAccount online, it becomes easier to draw conclusions about how behaviors, choices and weather are impacting daily use.

Other Ways Weather Affects Energy Use

During extreme heat waves or cold spells, we may supplement our heating with space heaters or our cooling with fans — both resulting in increased energy use. We may also be inclined to spend more time indoors. That can mean more lights, more TV, more electronics use, and therefore even higher electric consumption.

Fans increase comfort using a small amount of energy. Raising your thermostat a few degrees and using a fan to stay cool and comfortable is a good way to save energy in the summer.

Tips to Minimize Impacts During Cold or Warm Snaps

A well-sealed home with adequate insulation is your best year-round defense against the weather and higher-than-necessary bills. But there are other ways to minimize the impacts:

During cold snaps:

- Open drapes and blinds on the south side of your home to let heat in during the day.
- Lower the thermostat at night and when you are away during the day — even small temperature adjustments can make a difference. Limit heat pump setbacks to 2 to 3 degrees.
- Caulk and weatherstrip around doors and windows.

During heat waves:

- Close blinds, especially on the east and west, to block out the warming rays of the sun.
- Use fans instead of reducing the A/C temperature to maintain comfort in occupied rooms.
- When temperatures drop (and it's safe), open windows to cool your home naturally.



See How Your House Reacts to Weather

Find a chart comparing your home's energy use to degree days for the previous 24 months in myAccount at idahopower.com. Click on the Weather & Energy icon.





Check Your Energy IQ

1. Which home improvement will usually lower a household's energy cost the most?

- A. Upgrading windows
- B. Adding insulation to an attic
- C. Installing light-colored roof shingles
- D. Sealing all air leaks, including leaky ducts

Unless you are replacing single pane or metal windows, it can take up to 20 years to recoup the investment. Sealing air leaks in walls, windows, and especially ductwork is usually the best improvement with attic insulation coming in second place. (D)

2. What has happened to energy consumption by all households in the U.S. since the late 1970s?

- A. Increased by about 50%
- B. Increased by about 25%
- C. Stayed about the same
- D. Decreased by about 25%

Even though houses are larger, most have air conditioners and are filled with electronics, total energy consumption in the U.S. has been basically flat. Appliance and lighting standards, along with energy efficiency initiatives and labeling have counteracted other increases in energy use. (C)

3. Adjusting a thermostat 5° to 10° F, both at night and during the day when you're not home, can cut a household's annual energy costs by how much on average?

- A. Under 10 percent
- B. 10 to 20 percent
- C. 21 to 30 percent
- D. Over 30 percent

Each degree you adjust the thermostat could translate into 2 percent savings if done during the night and daytime hours. The correct answer for this scenario is 10 to 20 percent. (B) Remember to limit heat pump setbacks to 2 to 3 degrees.

FOR SALE: *Efficient* A Comfortable Home

Whether you are considering the purchase of a new home, trying to sell an existing home, or just looking to make the home you're in more comfortable and attractive, consider adding an energy efficiency lens to the project. When you do, you'll have a better chance of maximizing your comfort, minimizing future energy use and increasing market appeal.

IN THE MARKET TO BUY?

Building or buying a brand new home?

One of the easiest ways to ensure you are getting an efficient home is to look for the ENERGY STAR® certification. This designation tells you the home has been tested by a third party throughout the building process and the materials and installation meet a stricter standard than most.

Planning to purchase an existing home?

Be a savvy consumer and get more detail to inform your purchase decision. Ask your home inspector to point out trouble areas or efficiency opportunities. He can specify attic insulation levels and pay special attention to ductwork, air sealing and insulation.

Did You Know?

You can earn cash back from Idaho Power when you purchase a new electrically heated ENERGY STAR® certified manufactured home.

Did You Know?

Some banks have special mortgage options for energy-efficient homes or upgrades.

IN THE MARKET TO SELL?

If this is your year to sell, you should know many home buyers are keyed into energy use as an important feature for comfort and long-term savings. If your home is energy efficient and you have comparatively low energy bills given your home's size and occupancy, consider sharing your bill history and highlighting this benefit for prospective buyers.

By being transparent and forthcoming with your home's energy use and the efforts you have made to improve its performance, you will increase buyer confidence and ensure that energy efficiency is weighed appropriately in the sales price.

How Does My Home Compare?

It's easy to look up your historical energy use in myAccount:

Annual Electricity Energy Use



To see how your home compares to an average home in this climate, of similar size and occupancy, visit idahopower.com and log in to myAccount. Click the Savings Center link in the left-hand navigation bar. If this is your first visit to the Savings Center, you'll need to answer a few questions about your home.

idahopower.com/myAccount

REMODELING?

Many remodeling jobs offer opportunities to see what's behind the walls and reduce the cost of energy efficiency upgrades by coupling them with the remodel. When you're in the midst of the mess and anxious for a speedy completion, it's easy to skip these opportunities. Don't do it, or you may miss a chance to improve comfort and increase your home's value at minimal cost. When you consider air sealing, increased insulation and fixture upgrades during the planning process, you can make them happen without delaying other aspects of the job.



A Checklist

FOR HOME BUYERS

- ✓ Is the homeowner willing to share the home's energy bill-history?
- ✓ When was the home built? Its age determines the building code standards in place at the time. Homes built after 1991 had energy efficiency standards included; however the standards have become more stringent since then.
- ✓ Are exterior walls 2x4 or 2x6 construction? 2x4 walls generally are insulated to an R-13. 2x6 walls are thicker and generally contain more insulation, i.e. R-19 (more insulation increases comfort and lowers heating costs).
- ✓ Is there evidence of spiders or critter-entry? If so, there may be gaps and air leaks that need to be plugged.
- ✓ Is there evidence of routine home maintenance, i.e. is the furnace filter clean and free of debris?
- ✓ Are windows double pane with non-metal frames? Do they face south to provide needed winter warmth or west to add unwanted summer heat?
- ✓ Are there signs of moisture damage around windows? These point to broken seals or inadequate ventilation.
- ✓ Will you be able to rely on natural light during the day? How many light bulbs are there? Idaho's current average is 63 bulb sockets.
- ✓ Did you check the efficiency ratings on the furnace and the water heater (sticker required by law)?
- ✓ Are there shade trees on the west/northwest and east to help reduce summer heat gain? Is the southern exposure fully open to the winter sun's warming rays?

Pyramid of Savings

Where Do I Begin?



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idahopower.com/save

If you want to save energy but don't know where to begin, start at the base of the pyramid and work your way up. Items at the bottom are simpler and cost less. Items at the top require more money and/or time.

Idaho Power has tools, programs and incentives related to many of these opportunities. Your path to success starts today at: idahopower.com/save.

COMPLEXITY • COST • TIME

- Replacement
- Blinds and shades

WINDOWS

- Smart thermostats
- Heat pumps
- Ductless heat pumps

HEATING & COOLING

- High-efficiency showerheads
- Heat pump water heaters

WATER HEATING

- Attic
- Foundations
- Walls
- Crawl spaces

INSULATION & AIR SEALING

- Buy ENERGYSTAR®

APPLIANCES

- Caulk and weatherstrip doors & windows
- Seal leaky ductwork

LEAKS & HOLES

- Install LEDs
- Use timers and occupancy sensors

LIGHTING

- Set programmable thermostat
- Recycle second refrigerator
- Change furnace filter
- Use a clothesline or drying rack
- Sign up for a discounted Home Energy Audit at idahopower.com/HomeEnergyAudit

NO AND LOW-COST

- Review online tips and tools
- Sign up for myAccount
- Order a free Energy-Saving Kit

AWARENESS