POWERLINE
NEWSLETTER FOR CO-OP MEMBERS OF CORN BELT ENERGY
CORN BELT ENERGY
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HOW HUMIDITY AFFECTS YOUR HOME AND YOUR ENERGY BILL

Heating and cooling your home may seem simple in theory. Your furnace heats when you need it to, and when the weather is hot, your air conditioner cools the air in your home. However, several factors affect your overall comfort level and energy efficiency of your home.

Updated heating and cooling equipment and mindful energy usage can increase the energy efficiency of our homes but what about other factors such as humidity? Most people aren't aware of the impact that humidity can have on their energy use.

Humidity is a way to measure the amount of water vapor in the air at any given time. In the hot, humid summer months in Illinois, we feel that moisture when we're outside. Humid air can be challenging to properly cool. Because humidity reduces the rate of evaporation of moisture from our skin, it prevents our bodies from cooling properly and can make us feel hotter than we were at the same temperature in a drier climate.

If your home has high humidity levels inside, your air conditioner condenser will have to run longer and more frequently to reach a comfortable temperature, and even when you reach the right temperature, you might still feel like it's too warm. High indoor humidity ultimately increases wear and tear on your air conditioner, costing you more down the road, but it also means higher bills as you try to cool to a level that is comfortable. Not only will the increased humidity cause comfort issues but many manufacturers will not warranty equipment or other items such as wood floors if the humidity level in your home is too high.

So, how can you reduce the relative humidity levels in your home and decrease your utility bills during hot, humid summer months? Below are some tips.

- **Make your home energy efficient by ensuring that your home is properly insulated and sealed in order to keep the heat and humidity that surround the house from getting inside.** Leaky ducts (in unconditioned space),

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windows and doors can cause energy loss, making the HVAC system work much harder to wring the moisture out of the air and exacerbate potential indoor air quality issues. Homes that are "sealed tight" are easier to keep cool and dry.

- **Make sure that your HVAC system is the right size.** The U.S. Department of Energy estimates that most current residential systems are oversized. If your HVAC unit is too big, you will pay higher energy bills, and you won't get the efficiency level or comfort you want and expect. It is also likely that the unit is "short cycling," constantly turning off and on, never achieving optimum efficiency. When the unit runs in short bursts, it will not operate long enough to eliminate all of the humidity in your home. Likewise, when the HVAC unit is too small, it will run constantly. Damp, cool indoor air creates a muggy atmosphere that can lead to the growth of mold and mildew. This can be a particular concern for those who suffer from allergies, as many allergens thrive in damp conditions.

  If you have a multi-stage variable speed system or if your air conditioning unit is properly sized, you may not need to remove humidity because it will act as a dehumidifier.

- **Reduce the humidity you are already producing through fans and dehumidifiers**. Kitchens and bathrooms are the biggest contributors to higher humidity levels. When cooking, and especially when boiling water, run the vent fan. In the bathroom, run the vent fan when bathing or showering. Keep the fan on up to 30 minutes after you have finished in order to eliminate the residual moisture in the air.

  Run dehumidifiers to reduce humidity in your home. You can program your dehumidifier for a certain percentage: generally, 40% is best for comfort during the summer months. A target of 40% relative humidity will also prevent mold and damage to interior woodwork, windows, and walls.

  If you can reduce the indoor humidity level, you may be able to maintain a comfortable indoor temperature through the use of ceiling fans or a whole house fan. The air movement from the fan will create a "wind chill" effect and increase comfort. Continue to run ceiling fans when not in the room or when not at home if humidity is high. This helps to continue air movement and reduce stale or musty smells in the home.

  Dehumidifiers and vent fans cost money to run. However, the energy used to exhaust the humidity is worth it due to the overall energy savings you will receive from running your HVAC system less.

- **Make sure your home and basement are dry and do not have water running in.** Check outside causes of additional moisture in your home such as gutters and downspouts to make sure that they are directed away from your home as well as make sure there are no leaks or blockage. If rainwater leaks out and saturates the ground surrounding your home, some of the moisture can eventually migrate into your house.

- **Relocate house plants outside during the summer months.** Excess moisture from plants can cause humidity to rise indoors.

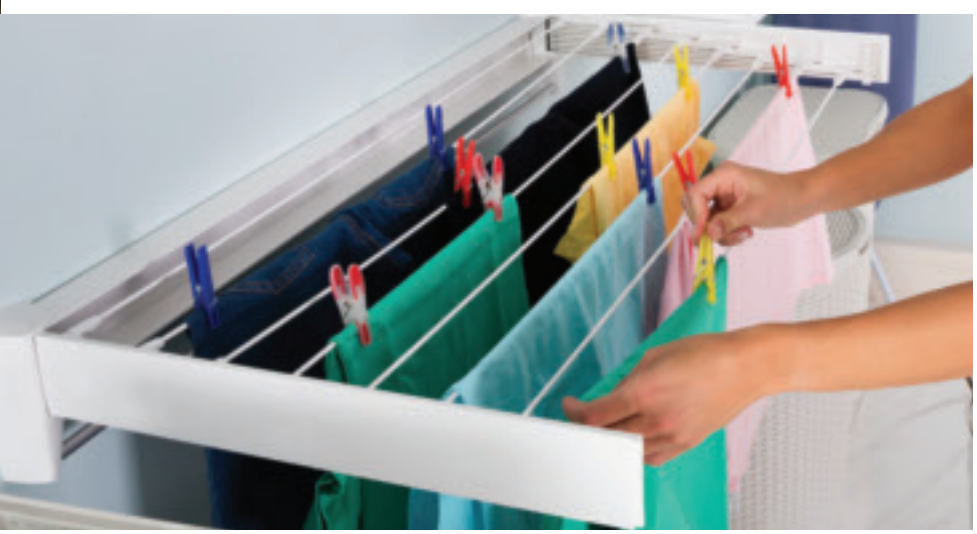
- **Insulate duct work in unconditioned spaces and have coils and filters cleaned in your HVAC unit.**

Humidity can also impact your home during the winter months. As the temperatures outside drop, the humidity in the air decreases which is why you don't often feel a pressing cloud of moisture in the winter like you might on warm summer days. As a result the air inside your home can often feel dry as you raise the temperature. Water in the air increases how well and how long the air in your home can remain heated. Without moisture you might feel chilly even though your thermostat reads a pleasant 72 degrees. This may prompt you to crank up the heat even more especially during a cold snap which will cause an increase in your utility bills.

How can you make your home more comfortable during the winter months? Below are some tips.

- **Run a humidifier during the cold winter months.** You can program your humidifier for a certain percentage: generally, 40% is best for comfort in the winter. If a humidifier is not in your budget, place shallow pans of water near heating vents and sunny windows.

- **Utilize the humidity that you are already producing in your home.** Use a room fan to push the damp air out into the other rooms of your home instead of your bathroom exhaust fan. This will also save you energy by not having to heat the air to replace air going out of your home from your bathroom exhaust fan.



Instead of using the drying cycle on your dishwasher, leave the dishwasher door open to air dry the dishes. It not only will add humidity to your house, but it will also save you energy.

Use a dryer bypass box to direct moisture and heat back into your home when using the clothes dryer. If you do not have a dryer bypass box, you can also hang damp laundry inside your home on laundry racks instead of using the clothes dryer. You might even want to use a room fan to increase drying time and to spread the humidity faster around your home. Not using your dryer will both save you energy and increase your home's humidity.

Most of the humidity leaves your home through the attic. Therefore, it is important to air seal and insulate your home. Add insulation to your home such as foam, cellulose and check to make sure seals around your windows and doors are tight.

- Water houseplants regularly and keep them well sprayed with water. This will help to add moisture to the air as well as keep your plants healthy during the dry winter months.

For more information on improving the overall comfort of your home through energy efficiency, contact Jeremy Myers at 800-879-0339 x221.

Corn Belt Energy Executive Management and Board of Directors present Senator Barickman with the Illinois Electric Cooperatives' Public Service Award.

State Senator Jason Barickman receives IEC Public Service Award

At the Association of Illinois Electric Cooperatives' annual meeting, held Thursday, July 26, State Senator Jason Barickman, R-53rd District, received the 2018 Illinois Electric Cooperatives' Public Service Award. The award was made in recognition of Senator Barickman's dedicated public service to all citizens of the state of Illinois and for outstanding contributions to the rural electrification program.

Senator Barickman has served in the Illinois Senate since 2013, and he serves as the Assistant Republican Leader. He previously represented the 105th District in the Illinois House of Representatives from 2011 to 2013.

Levelized Billing

Levelized Billing gives you a way to guard against large fluctuations in your monthly electric bill, without ever having to play "catch-up" at the end of the year. With Levelized Billing, your monthly electric bill becomes a "rolling average" of your electric usage for the most recent 12 months. By averaging your changes in usage over a 12-month period, your bill will remain fairly consistent every month, even in very cold or hot months when usage may be significantly higher.

Our Levelized Billing program is completely free for members with accounts in good standing and with at least 12 months of service history.

Members can deactivate the Levelized Billing program at any time by contacting our Billing Department. If a member on Levelized Billing becomes delinquent or enters into a delayed payment agreement, they will be removed from the program.

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