



City of Wayne Newsletter

City of Wayne
Utilities

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ENERGYWISE TIP ~ Polar Vortex Heat Pump Operation

 During the February polar vortex, the cost of certain heating fuels increased significantly. In some cases throughout the nation, this extra fuel cost will be passed on to customers for years. But those in Nebraska with the most efficient electric heat pumps (air-source and geothermal) stayed warm, with only a blip in extra costs caused by the extremely cold weather, not by exorbitant fuel escalation.

Heat pumps have advantages when compared with fossil-fuel heat (natural gas, propane, fuel oil), including high overall efficiency (i.e., higher energy output for the same energy input) and reduced local emissions such as carbon dioxide.

With geothermal heat pumps, even if it's -25 or +105°F outside, your house will stay conditioned. That's because geothermal heat pumps make use of transferring heat into and out of the earth. At 12 feet or more beneath the earth, the ground temperature is a constant 55 to 60°F in Nebraska. A geothermal heat pump capitalizes on this to provide heating efficiencies that exceed 400%, as compared to natural gas and propane, which cannot exceed 100%. As an added benefit, a geothermal heat pump is 25 to 50% more efficient than a typical air-conditioner.

Electric Power Research Institute field testing has demonstrated that certain models of

variable-speed air-source heat pumps meet a home's entire heating load without supplemental heating down to 0°F outdoors, with continued heat pump compressor operation providing energy savings down to -20°F.

These variable capacity air-source heat pumps are gaining traction in the marketplace. They continuously adjust compressor and fan speeds to meet a home's required heating and cooling loads, resulting in high energy efficiency and excellent occupant comfort. Though heating capacity of standard-efficiency, single-speed heat pumps is greatly reduced as outdoor temperatures decline, variable-speed systems still provide a higher proportion of their heating capacity at low outdoor temperatures. The end result is a significant reduction in electricity demand during winter by reducing dependence on supplemental heating.

Results from actual variable capacity heat pump installations during the February 2021 polar vortex substantiate this, proving they can handle the heating needs of an entire home at zero to -5°F. At extremely low temperatures below that, the heat pump is simply boosted by a small amount of electric resistance strip heat (five to 10 kilowatts (kW)) to keep your home comfortable. Contrast this to standard single-speed heat pumps in typical residential applica-

tions, where 15 to 20 kW of electric resistance strip heat is needed during the coldest periods, depending on the size of home. These new heat pumps also provide quiet operation and higher air temperatures coming out of your registers.

It should be noted that variable capacity technology has also been applied to geothermal heat pumps for a number of years, which results in ultra-efficient heating and cooling of your home.

Both the geothermal and variable capacity air-source heat pumps are especially viable options for rural living where a back-up generator is desired. A 10 kW generator may very well handle the electric heating load during even the most severe conditions.

There may be [incentives](#) for the installation of these very efficient heat pumps. In addition, federal tax credits are available for geothermal installations made in 2021. For more ideas on how you can make your home or business EnergyWiseSM, along with information about energy efficiency financial incentives, contact your local utility.

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CITY COUNCIL
MEETINGS
June 1st
June 15th

CITY HALL
OFFICE HOURS
City Hall office
Hours are:
7:30 a.m.
until 4:30 p.m.

CITY SIREN
SIGNALS

Fire Alarm Siren:
This is a high/low tone and will operate in daytime hours

Tornado Siren: **This will be a single high tone siren for 3 minutes.**

Tornado Shelters:
City Auditorium at 3rd & Pearl Street
&
East Park Restrooms

Department News ~

**DISCOVER A
NEW WAY TO
PAY!**

Paying your bill has never been easier and you've never had more options!

- Access real-time account information and consumption history
- Pay via phone, text, website, or mobile app
- Make a one-time payment, schedule a payment, or sign up for auto pay
- Receive payment reminders



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WISE WORDS

“The difference between a stumbling block and a stepping stone is how high you raise your foot.”

~Benny Lewis

Backflow Prevention ~

What is Backflow?

Backflow is the unwanted flow of used or non-potable water or other substance from any domestic, industrial or institutional piping system into the pure, potable water distributions system.

Why is Backflow Bad?

Backflow is bad because of the potential for hazardous chemicals to contaminate good drinking water which can result in serious illness.

Your garden water hose may be hazardous to your health.

Do you know the dangers of backflow?

A man sprays commercial weed killer containing an arsenic compound on the lawn using a garden hose attachment. After finishing, he disconnects the applicator. Since it is a hot day, he takes a drink of water from the hose. A short time later, he dies from arsenic poisoning.

How could this happen?

While the man was spraying weed killer, the water pressure dropped, which resulted in the chemical being sucked back into the hose. Later, when he drank from the hose, the poison was in the water. He unknowingly poisoned himself.

When water flows backward through the water supply system, it is called "back siphonage" or "backflow." The danger comes when any hose, including a garden hose, is connected to a harmful substance. If the pressure in a water main drops while the hose is submerged in polluted or contaminated water, then the water (and whatever is in it) could be sucked back into the water pipes inside your home and into the drinking water supply. Water pressure drops are not uncommon. It can happen when firefighters battle a nearby blaze or before an authority crew repairs a broken water main on a nearby street.

Some harmful substances to be wary of are chemicals used to kill weeds, insects or

lawn fertilizers. The cleanser used around the kitchen sink could be hazardous if ingested, as could the bacteria in the water from a wading pool or waterbed.

Keeping your water safe from contaminants is easy. The following steps will help protect your drinking water:

- Never submerge hoses in buckets, pools, tubs or sinks. Keep the end of the hose clear of possible contaminants.
- Don't use spray attachments without a backflow prevention device.

Purchase and install inexpensive backflow prevention devices for all threaded faucets around your home. They are available at hardware stores and home-

WAYNE
RECYCLING &
TRASH
CENTER (RTC)
HOURS

Monday & Friday

9:00 a.m.—1:30 p.m.

Tuesday

11:00 a.m.—2:00 p.m.

Saturday

8:00 am.—Noon

Or by appointment
Tuesday, Wednesday
and Thursday

Green Notes ~ Take Household Hazardous Waste to Norfolk!



You can take your household hazardous waste items like oil & latex paint, cleaning chemicals, pesticides, aerosol cans, and even nail polish remover, to the City of Norfolk's Household Hazardous Waste Facility. This HHW Facility serves the entire Lower Elkhorn Natural Resource District, which includes all of Wayne County and surrounding areas. Located at 610 E Monroe Ave in Norfolk, it is open Mon thru Fri 7:30am to 5pm, and Sat 7:30am to noon. Only households can bring their HHW. Check the website for a list of acceptable items or call first with questions: [402-844-2231](tel:402-844-2231) or <https://norfolkne.gov/government/departments/solid-waste-division/household-hazardous-waste-facility.html>. Other disposal options for businesses are listed on the website.

The Wayne Recycling & Trash Center (RTC) at 110 Windom Street has moved recycling bins back to the south bay of the building. Bins are marked for cardboard (be

sure to flatten), glass, cans, and mixed plastics and tin (no Styrofoam). You can still leave paper in the Boy Scouts trailer on the east side of the lot. The RTC is operated by Waste Connections and open Monday and Friday, 9am-1:30pm, Tuesday 11am-2pm, and Saturday, 8am-noon, or by appointment. For any questions, call [\(402\) 375-1856](tel:402-375-1856).

Electronics recycling is set for Saturday, September 18, 8:00 – 10:00 am, on 3rd Street between Lincoln and Pearl.

Save the date for electronics recycling! Our annual electronics recycling event returns on Saturday, September 18, 8:00 – 10:00 am, on 3rd Street between Lincoln and Pearl.

For more tips on the Green Path to the Good Life, like the Wayne Green Team on Facebook or visit www.cityofwayne.org/greenteam.

The Fair Housing Act protects people from discrimination when they are renting, buying, or securing financing for any housing. The prohibitions specifically cover discrimination because of race, color, national origin, religion, sex, disability and the presence of children.

If you believe you may be a victim of housing discrimination, contact HUD 1-800-669-9777 or your local Fair Housing representative:

Wes Blecke
306 Pearl Street
Wayne NE 68787
 wblecke@cityofwayne.org
YOUR CHOICE. YOUR RIGHT.
YOUR HOME

