Natural gas production and delivery

Source: U.S. Energy Information Administration

FEATURING: NATURAL GAS DELIVERY SYSTEM

2 OPU Memo 5 Sump Pump Backups 6 Clean H2Owatonna
2 Conservation Tips 5 Flammable Liquids Warning 7 Furnace Clean & Tune
3 City Spot 5 Rotary Fun Run 8 Public Power/Natural Gas Week
4 Natural Gas Delivery System 6 Hands-Free 8 General Information

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At this year’s Annual American Public Gas Association (APGA) Conference, I was honored to accept on OPU’s behalf the prestigious System Operational Achievement Recognition (SOAR) for excellence in operating our natural gas utility. This award recognizes us for operating a safe and reliable natural gas distribution system while being a forward-thinking organization that constantly strives to improve.

Out of approximately 750 APGA members, we were selected for the SOAR Silver level by our peers on the APGA Operations and Safety Committee. The selection was based on demonstrated excellence in the four areas of system integrity, system improvement, employee safety, and workforce development.

OPU was one of eighteen SOAR recipients recognized at the 2019 APGA Annual Conference, joining the 35 previous SOAR award recipients. This award, along with the APPA RP3 recognition on the electric side, acknowledges our mission of being “the utility that is used as an example of excellence nationwide”.

We care about national recognition not for the recognition itself. We care because it is through comparison with others that we know how well we are living up to our goals for excellence and where we need to focus to continue improving.

I’ve said it before, but I’ll say it again. I am honored and humbled to have the opportunity to lead such a fine organization as OPU. I truly enjoy coming to work each day with people who work to deliver their best every day, are proud of what they do, and are always looking to improve.

CONSERVATION TIPS

Save natural gas and water by washing only full loads of laundry. Clothes washers, even new ones, use more water per clothing item on small loads costing you more on utility bills.

Visit our website for more energy conservation ideas at https://www.owatonnautilities.com/residential-customers/conservation-tips/
City of Owatonna Stormwater
Watershed Wide Clean-up Event – September 21st, 2019 9:00AM

Gather your friends, family, and coworkers to join us at Morehouse Park on Saturday September 21st for the 11th Annual Watershed Wide Clean-up Event. Volunteers will help clean up garbage and debris from the Straight River, Owatonna’s most valuable natural resource. Lunch and a souvenir will be provided to all participants. Last year, nearly 200 volunteers helped to remove 4 tons of trash from the Cannon and Straight River!

To sign up or sponsor the event visit: https://crwp.net/ or contact the Cannon River Watershed Partnership office at 507-786-3919.

Clean H2Owatonna Program
“Clean H2Owatonna” is the City of Owatonna’s Stormwater Management Program comprised of various program elements and activities designed to reduce stormwater pollution, eliminate unwanted discharges, and promote enhance the quality of the communities’ water.

New Stormwater Management Facilities
The City of Owatonna has recently constructed seven new public stormwater treatment facilities including 2 raingardens, 1 stormwater pond, 2 bioretention tree planters, and 2 infiltration basins. For more information regarding these facilities, contact the Public Works Department.

Assisting with the Clean H2Owatonna Initiative
• Install a rain garden, rain barrel, pervious pavers, native garden/buffer or plant a few trees
• Practice good housekeeping and best management practices at your own home when using chemicals such as fertilizers, pesticides, herbicides, detergents, deicers, etc.
• Take a walk in your neighborhood and remove garbage, yard waste and debris from catch basins and curb lines
• Visit a nearby stormwater treatment system (ponds, rain gardens, filtration basin, etc.) and remove garbage, weeds, and other debris
• Remember to keep yard waste out of the street, especially when mowing
• Wash your car in a grassed/buffered area
• Contain all liquid wastes during vehicle maintenance, dispose of properly
• Remove any junk or debris from your yard that is exposed to weather
• Report suspected pollution to the stormwater hotline
• Encourage your family and friends to get out on the water and enjoy the beauty of our natural resources

Getting Involved to Better Your Community
Residents are strongly encouraged to explore one of many opportunities to make a difference in the community and have a positive impact on the quality of surrounding waterways. The City of Owatonna currently offers, supports and promotes the following public participation and involvement programs:
• Rain Garden Cost Share Program
• OPU Rain Barrel Rebate Program
• Adopt a Rain Garden Program
• Adopt a Catch Basin Program
• Storm Drain Stenciling Program
• Annual Watershed Wide Clean-up Event

Please contact Bradley Rademacher, Water Quality/Stormwater Specialist at 507-774-7300 or Bradley.rademacher@ci.owatonna.mn.us if you are interested in participating.
To most people, natural gas is known by its rotten-egg or sulfur smell that signals something isn’t right in their home or as a must-have fuel for stoves, furnaces and other appliances, but where does this gas come from? How does it finally arrive at the stovetop to boil our water, fry up our pancakes, or power our natural gas generators? Many people wonder: How does natural gas work?

Our nation’s natural gas delivery system is split into three main parts: the gathering of gas from multiple small wells, the transmission of the gas by long-distance pipelines and the distribution of the gas to local customers. Within all of these parts are other systems that work together to deliver natural gas safely and reliably to customers.

The fundamental principle of the natural gas supply pipeline architecture — gathering, transmission and distribution — is gas flowing from higher to lower pressure. This process starts with wells. Wells exists throughout all of the continental United States, and the natural gas flows from the wells into gathering lines, which are similar to branches on a tree, getting larger as they approach a central collection point.

Gathering lines often include compressors or machines that help push the gas through the lines to aid in moving it to a pipeline or processing plant. Some gathering systems include processing facilities that act as a filtration system. Processors are often used to remove impurities such as water, carbon dioxide, sulfur or helium that can damage the pipeline or reduce the energy value of the gas.

From the gathering system, natural gas moves into the transmission phase of the pipeline architecture. The easiest way to visualize this phase is to picture the highway system. This stage is made up of thousands of miles of steel pipe that reliably move the natural gas from the wells to the local distribution companies (LDCs).

Approximately every 40 to 100 miles along each pipeline, automated compressor stations boost the pressure in the pipeline and replenish pressure that may be lost during the journey due to friction. The function of the transmission and compressor system is what makes the natural gas process so resilient and reliable. According to a study by MIT, even with the failure of half the compressors, the distribution network could still run unattended and without power.

Once the natural gas in a transmission pipeline reaches the LDC, it passes through a gate station. Gate stations serve three main functions: to reduce pressure in the line to the level needed for distribution, to add the compound (typically mercaptan) to the gas, and to measure or meter the flow rate of the gas in order to determine the amount received by the LDC. Mercaptan gives natural gas a distinct sulfur or rotten-egg odor for consumers to better detect the otherwise unscented gas.

After the gate station, the natural gas flows into the final distribution stage of the pipeline infrastructure. At this stage, the gas is distributed through mains to the end user via pressure regulators that reduce the gas pressure to a usable level. Regulator sensors are monitored closely to ensure that sufficient flow rate and pressure are maintained such that the gas can be used to fuel equipment and appliances.
Last month we printed this article but it has come to our attention that due to code changes, water powered sump pump systems can no longer be installed. The article is being reprinted with information about water powered systems removed.

Powerful storms often cause power outages and leave homes at risk of flooding if a backup system for the sump pump isn’t in place. Utilities, including OPU, cannot guarantee power 100% of the time so it is up to homeowners to decide if a backup system is appropriate. Fortunately, there are different types of backup systems homeowners can consider.

Portable generators are readily accessible and are a very common option for backup power during outages, not only to sump pumps, but also for refrigerators, freezers, and some household lighting. Generators must be operated properly, though, to ensure the safety of everyone in the home. Generators must be operated outdoors but not directly downwind or too close to the house or garage. Sump pumps and appliances must be plugged into the generator directly or using extension cords, never wire a portable generator into your home electrical panel as this can back feed the utility system and injure linemen working to restore power.

Battery backup systems are the other main option, providing peace of mind during outages by automatically kicking in. Battery backup systems use a separate pump and are easy to install, but do have limitations. Batteries require maintenance and don’t provide long term pumping backup without being charged or changing batteries.

No matter the backup system chosen, please make sure that systems are operated and installed according to the manufacture instructions and safety directions.

Owatonna Public Utilities reminds you:
DO NOT store flammable liquids near natural gas appliances such as furnaces or water heaters!

The most common types of flammable liquids homeowners have are:
- Gasoline
- Solvents
- Paint Thinners
- Adhesives

On August 17, 2019 ten OPU employees participated in the Rotary Fun Run. OPU challenged Steele Waseca Coop Electric to compete in the race. Each team’s top five fastest runners were used to determine the team time. The winning team will display a traveling trophy until next year. In the end, OPU prevailed. Pictured below left to right are Josh Prokopec, Dave Wavrin, Byron Brady, Roger Warehime, Jeri Blazek, Samuel Bahl, Dave Olson and Tammy Schmoll. Not pictured: April Moran and Rick Hager. The Rotary Fun Run raised $5,000 for the We-All-Play Inclusive Playground.
CRWP Watershed Wide Clean-up Event – Owatonna Location (Straight River)

Save the Date - 11th Annual Watershed Wide Clean-up
September 21st, 2019

For the past 10 years, volunteers have combed the stream banks and waterways around Owatonna with the goal of cleaning trash and debris from the Straight River. With every passing year, more and more garbage is removed by hard working individuals and businesses who are dedicated to making a difference. Since 2009, residents of Owatonna and the surrounding cannon river watershed have volunteered cleaning up local creeks, the Cannon and Straight River.

The 11th Annual Watershed Wide Clean-up will take place in Owatonna on September 21st from 9am to 12 noon at Morehouse Park. The event is hosted by the Cannon River Watershed Partnership, who helps to find sponsors and coordinate the clean-up event. After the event, all volunteers are provided lunch and an opportunity to share their big finds of the day.

Get Involved! If you are interested in helping or sponsoring the event, visit www.crwp.net. Please come and join us to ensure our waters stay clean, safe and healthy!

Learn more about the Stormwater Program by contacting Bradley D. Rademacher, Water Quality/ Stormwater Specialist at (507)-774-7300 or Bradley.rademacher@ci.owatonna.mn.us
DON'T GAMBLE ON YOUR FURNACE OR BOILER!

October is HVAC System Awareness Month. Make sure your heating system is working properly and efficiently. Complete a Clean & Tune and apply for a $25 REBATE!

Visit www.owatonnautilities.com to learn more and download rebate applications with complete terms and conditions.
OFFICE HOURS:
Monday-Wednesday: 8:00 a.m. - 5:00 p.m.
Thursday: 8:00 a.m. - 6:00 p.m.
Friday: 8:00 a.m. - 4:00 p.m.
Saturday & Sunday: Closed

Payment Options
- Online at www.owatonnautilities.com
- Automatic Withdrawal; bank account or credit card
- Drive-up drop box located in the parking lot south of building
- Drop box locations at Cash Wise Grocery Store and HyVee Food Store
- Mail
- At Owatonna Public Utilities; cash, credit card, check or money order

Moving?
Remember to contact the Customer Service Department ONE WEEK prior to moving, 451-2480.

PUBLIC POWER WEEK
Thursday, October 10, 2019
8:00 a.m. - 6:00 p.m.
208 S. Walnut Ave.

Refreshments, Lineman Photo Prop, FREE Energy Star LED Bulb*, Building Tours (9am, Noon, 2pm, 5pm), kids’ zone, coloring contest, and much more

* limit 1 per household, while supplies last

PUBLIC POWER: costs less, reliable, customer-focused
learn more at www.publicpower.org

Gas Leak?
If you smell gas and can’t find the source immediately, go to a neighbor’s house and call OPU at 451-1616.

Don’t turn electrical switches on or off or use a flashlight or telephone in the home, because an electrical spark could ignite the gas and cause an explosion.

From the Editors
We welcome your comments and suggestions for future issues. Feel free to email us at tammy.schmoll@owatonnautilities.com.