

# THE INNOVATOR

Denison Municipal Utilities

January, 2016

## MESSAGE FROM THE GENERAL MANAGER

2015 was another very exciting, challenging and successful year at DMU. Below is a very small list of some of our activities:

- Finalized the purchase of three new well sites that will be developed into new water sources for Denison and the West Central Iowa Rural Water Association.
- Received a \$500,000 water emergency grant from the USDA to help finance the new wells.
- Received an energy efficiency grant from the Iowa Economic Development Authority to complete energy audits on all municipal buildings in Denison.
- Partnered with Denison Schools and the City of Denison on the tennis court project by providing and installing the new lighting for the facility.
- Signed a contract with HDR Engineering to design a Phase 1 maintenance improvement project at the wastewater treatment plant.
- Executed a rehabilitation contract to repair the #3 Clarifier at the wastewater treatment plant.
- Converted Highway 30 streetlights from high pressure sodium lights to LED lights.
- Partnered with the Chamber and Development Council (CDC) on the Quality Food Processors plant expansion plans.
- Received a 1st Place Award from the American Public Power Association (APPA) for an excellent safety record.
- Executed an amendment to the S-1 Wholesale Supplemental Power Sale Agreement with Missouri River Energy Services (MRES) that defines a shift from independent transmission deliveries to a regional transmission organization. Agreement term extended to 2057.
- Hired Chris Ball and Mike Miller at the electric utility, Jacob Landgraf, Glenn Carlson and Justin Gibbons at the wastewater utility and Tina Miller at the administrative office.

On behalf of the DMU Board and employees who work every day to be the very best providers of electricity, water and wastewater services that we can be, it has been a pleasure to serve you in 2015. And as we move forward in 2016, you can be assured that we are positioned for long-term success by having the right team in place with years of talent, experience and leadership, and a commitment to continue to successfully serve this community.

Mark Ramthun

## College scholarships available

DMU in conjunction with Missouri River Energy Services (MRES) will be awarding Five \$1,000 scholarships this spring. The materials will be available in January with applications due in March. Any high school student whose parents are electric customers of DMU are eligible.

To encourage students to choose a career in line work and to then seek employment with municipal utilities, MRES is also offering Five one-time \$1,000 scholarships per year to a qualified student taking the Electrical Line Worker Program. This is for students entering the program at one of the following colleges: Minnesota West Community & Tech College, Northwest Iowa Community College, Mitchell Tech Institute, Minnesota State Community & Tech College, Dakota County Tech College.

The scholarship needs to be used for tuition, books, and/or tools and supplies. For this particular scholarship, the students applying are not required to be electric customers of DMU. The scholarship is a one-time award only, students may not reapply.

More than thirty students from MRES member communities currently are benefiting from this program, and we look forward to helping ten more students this spring. Scholarship forms can be picked up at the Denison High School Counselors Office or for more information call our office at 712-263-4154.

## New Ways to Pay Your Denison Municipal Utilities Bill



Denison Municipal Utilities has expanded its electronic bill payment services.

We are making your life easy with many options for paying your utility bill.

Enjoy these new services!

- ◆ Pay by credit card, debit card, eCheck or eSavings
- ◆ Pay online or by downloading our payment app to your smart phone
- ◆ Pay immediately or set up automatic payments for the amount of your bill
- ◆ Save resources by paying electronically
- ◆ The payment posts the day you make it

Pay **ONLINE**

Go to [www.dmuonline.com](http://www.dmuonline.com)  
Click on the bill payment link. You can store payment information so future payments are just 3 quick steps.

Pay on **MOBILE** Device  
Download "DMU" from the App Store® or Google Play™

View your current amount due online or on the mobile app!



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DENISON MUNICIPAL UTILITIES  
"Essentials For Life."

## The New Power Suit? Fabric That Generates Electricity

Could it be that the 1980s power suit is reborn? A new fabric that harnesses human motion to produce energy could give the term a whole new meaning. While it may be a while before you're generating electricity during your morning jog, researchers say that this new technology has real potential for commercial and medical applications.

### Tribo...what?

The power-generating cloth is known as a wearable triboelectric nano generator. What's that? Triboelectricity is the electrical charge created by friction-rubbing two things together. Think of a child's hair standing on end when they reach the bottom of the slide. The child and the slide have exchanged negative and positive electrons and the child has received a positive charge. A nano generator is a super tiny device that converts mechanical energy, or motion, into electricity.

### Cut from different cloths

The novel fabric, developed by scientists at Sungkyunkwan University in South Korea, combines a variety of materials. The outer layers are textiles coated with silver. Inside are zinc oxide nanorods with polymer surface. Researchers pushed down and released the fabric, which created an electric charge as the two layers moved back and forth against each other.

A wire was connected to the outer layer and enough electricity was generated in the experiment to power a liquid crystal display, a small light-emitting diode and a wireless key remote.

### Next Steps...

While much work remains to be done, researchers hope that the technology will someday help make our lives easier and more convenient. For instance, wearable electronics, such as a medical sensor, would no longer require a battery. Also, it could self-charge your electronic devices as you're walking or jogging. Imagine never having to plug your smartphone into a charger again.

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## Take the first step to Save Energy and Save Money in your home



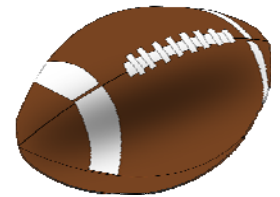
Making your home more energy efficient can help to reduce energy bills, improve comfort, and help protect the environment. When it is time to upgrade equipment in your home, choose qualifying equipment to get a Bright Energy Solutions® rebate and save all year long. Incentives are available for the following:

### ENERGY STAR Qualified Products:

- Clothes washers—\$50
- Clothes Dryers—\$80
- Refrigerators—\$50 (with recycling of old, working unit)
- LED and CFL Lighting -\$1.50 to \$4.00
- Room air conditioners—\$15
- Dehumidifiers—\$10

As of 1/1/16 dishwashers and ceiling fan rebates will be discontinued.

## What Can You Do With 1 kWh This Football Season?



**Cook your famous chili.** The average slow cooker can work its magic on your chili for up to 5 hours with just 1 kWh worth of energy.

**Catch the early game and the late game, too.** You can run a 70" LED television with satellite connection for almost 7 hours.

**Chow down on 40 chicken wings.** You can get about 50 minutes of deep-frying done with a consumer grade fryer for just one kWh.

**Properly inflate 14,360 footballs.** One kWh will keep you pumping air from your electric pump for nearly 6 hours. That's a lot of properly inflated footballs.

**Bake 4 dozen chocolate chip cookies.** Since you can bake at 350° for 30 minutes for 1 kWh in an electric oven, you can get a couple double batches of your favorite recipe.

**Clean a load of dishes.** With all that food and all those guests, use a kWh to run a load of dishes in an average ENERGY STAR dishwasher.

**Keep warm during two halftimes.** When the temperature drops, space heaters tend to make an appearance. College football halftimes are 20 minutes each....which gives you just enough time to use a kWh to warm up a couple of times.

**Stay warm from pre-game through post-game.** Plug in your electric blanket instead and you can stay cozy for 6.5 hours.

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