

Businesses demonstrating the power of one®—with effective energy choices

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Furniture Store Achieves Benefits Beyond Energy Savings

Frizzell Furniture Gallery in Walker, Minn., sells comfort. The store's attractive, welcoming environment is designed to make customers feel at home. It is cozy in the winter, cool in the summer and showcases furniture and household accessories in the best possible light. What many folks in this North Central Minnesota community might not realize is that this is accomplished, in part, through state-of-the-art, energy-saving technologies.

Minnesota Power's **power of one**® commercial conservation team has been a powerful partner, providing rebates and technical expertise to help this family-owned business make choices that are the right fit. The store recently converted to a closed-loop geothermal heating and cooling system and replaced its showroom and storage lighting with light emitting diodes (LEDs) and T8 fluorescents. The upgrades conserve energy, lower costs and reduce impacts on the environment—while meeting performance demands and reflecting core values of the Frizzell family. This business is making a difference beyond energy savings through the power of individual choices in action.

"I'm a child of the '60s and have an underlying interest in the environment," said Dick Frizzell, owner, who opened the business in 1992 and now runs it with his son, Will, and daughter, Tracy. "I worry about what we will hand over to our children and grandchildren and want to make decisions that are good for business and the world around us."

This interest in the double bottom line made geothermal heating and cooling an attractive option for the Frizzell family. Ironically, the path to installing a ground source heat pump (GSHP) system began with a totally different project. Dick Frizzell discovered the benefits of geothermal while researching ways to heat and cool a proposed building expansion. He called in Ike's Heating & Cooling, of nearby Nevis, Minn., to run the numbers and was stunned by the projected long-term energy and cost savings and reduction of greenhouse gases. That convinced Frizzell to postpone the expansion and convert the existing building to geothermal instead.

Frizzell selected a closed loop system with heat pumps manufactured in Minnesota. Freeman Well Drilling, of Walker, Minn., dug 20 wells for the geothermal system, and Ike's Heating & Cooling completed the installation. Both are accredited by the International Ground Source Heat Pump Association (IGSHPA), have completed manufacturer training, and are participating contractors in Minnesota Power's GSHP program.

"The upfront cost was higher than I expected, but the potential savings and benefits over 30 years were enormous. I suddenly realized that the better immediate goal was not to add more square footage but to convert our existing building to geothermal heating and cooling."

*Dick Frizzell, Owner
Frizzell Furniture Gallery*



Dick Frizzell, owner of Frizzell Furniture Gallery, is impressed with the lighting quality and energy savings since converting the showroom to LED and T8 fluorescent lighting.



A closed-loop geothermal heating and cooling system keeps the Frizzell Furniture Gallery warm in the winter and cool in the summer. It also helped the building achieve ENERGY STAR® certification.

For more information:

Take the first steps toward managing energy use and costs at your business. Learn more about **POWERGrant**, Minnesota Power's commercial, agricultural and industrial energy conservation program, and fill out your free online pre-application form.

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"It felt gratifying to provide work for local contractors and to use products built right here in Minnesota," Frizzell said. "We really depended on the expertise of the contractors in choosing our system."

"ENERGY STAR® certification is a source of personal pride, and it matters to some of our customers that we are concerned about the environment. I'm very happy with Minnesota Power. As a supplier, they have always provided reliable electricity, and their interest in helping us attain our conservation, cost-saving and environmental goals is phenomenal."

Dick Frizzell, Owner, Frizzell Furniture Gallery

Financial incentives, including federal energy credits and **POWERGrant** rebates from Minnesota Power, helped defray initial costs. The utility also offered lower dual fuel rates for electricity needed to run the system's heat pumps and blowers because Frizzell retained propane as a backup. The 20-ton geothermal system is expected to reduce energy use by 62,814 kWh per year, lower demand by 26.7 kW per month and save thousands of dollars annually in avoided energy costs. In its first winter, the GSHP system performed beyond expectations.

As this project was underway, the Frizzell family also began to look at lighting. They called in Minnesota Power energy analysts to assess energy-efficient lighting opportunities and incentives, including enhanced rebates for commercial LEDs and standard rebates for T8 fluorescent lights. A supplier who works specifically with furniture stores also helped Frizzell in choosing the right bulbs for the right job.

"Lighting is a huge concern in our business," Frizzell said. "Showroom lighting has to enhance the look of home furnishings, and we tried numerous LEDs with different capabilities and lumens to ensure we got the lighting we needed. Rebates from Minnesota Power were a deciding factor in getting this project done."

New, mixed energy-efficient lighting throughout the building is expected to save 42,568 kWh per year, lower electric demand by 21.3 kW per month and significantly reduce energy and maintenance costs.

"I don't think we have had a single bulb fail in six months, and the LEDs are projected to last 10 to 15 years," Frizzell said. "I also have not seen any degradation in lighting quality."

The new geothermal heating and cooling system, upgraded energy-efficient lighting and other improvements have earned the furniture store prestigious ENERGY STAR® certification and recognition as one of the highest performing facilities of its kind in the nation. Minnesota Power's conservation team assisted with collecting and inputting data required to secure the certification.

This project clearly shows the cumulative impact of energy efficiency in delivering long-term and measurable energy savings, environmental benefits and positive community economic impacts. **power of one**® ...it begins with you.