

DREMC Takes The Lead In Demonstrating Energy Efficiency

DREMC is taking the lead in demonstrating the most energy efficient heating and cooling system on the market today. Realizing that the existing HVAC (heating, ventilating and air-conditioning) system in the company's headquarters building on Madison Street in Shelbyville was aging, with some major components being 40 years old, the Cooperative's Board of Directors followed a policy that gives direction for the Cooperative to be a leader in demonstrating energy efficiency.

If you have been to the office building lately you probably have wondered what on earth those two large well drilling rigs were doing on the front lawn. Actually, they were an integral part in the installation of a new 56-ton geothermal heating and cooling system for the building. The well drilling rigs from Henry Drilling Company in Franklin were drilling 44 holes (mostly through solid rock) to a depth of 300 feet each. Installed in the holes will be 29,000 feet of piping to serve as an underground transport loop for water that will eventually be fed to the main heating and air-conditioning equipment

Designed by Oliver Rhoads and Associates of Tullahoma and being installed by Billy Thomas Plumbing and Electric of Shelbyville, the new system is expected to reduce energy demand by 50 percent and energy use by up to 60 percent. The efficiency of the system is gained by using the constant ground temperature as the thermal sink instead of a conventional air to air system that will see temperature extremes from below zero to in excess of 100 degrees. With this type efficiency the unit is expected to pay for itself through energy savings in seven to 14 years, far sooner than the life expectancy of the equipment or the building.

"The Cooperative's Board of Directors feels very strongly that DREMC should be the leader in the communities we serve in promoting energy efficiency.

Recent polls indicate that a large majority of the American people feel global warming is a bigger threat in the United States than other threats such as terrorism. While some might not agree with that, we feel energy conservation and using energy wisely is the most prudent, and certainly the easiest, way for every consumer to contribute to the reduction of greenhouse gases and carbon dioxide emissions through the reduction of fossil fuel electric generation," DREMC General Manager Jim Allison explained.

"Duck River Electric completed construction of a new office complex in Columbia in 2005. During the design phase of that building we specified a geothermal heating and cooling system and it has performed to our expectations. When it came time to replace the heating and cooling system in the Shelbyville office we recognized that although it will be a bit more difficult to retrofit the existing structure, the savings and efficiencies certainly justify the geothermal installation," Allison noted. The DREMC system will serve as a demonstration of how one can be retrofitted into a large commercial structure."

Additional information on geothermal heating and cooling systems can be obtained by contacting Duck River Electric's Member Service Department at (931) 680-588 or by going to www.eere.energy.gov/thermal.







