

the Wire

The Line on Energy for Business and Industry

Winter 2006

 **Kansas City Power & Light**[®]
ENERGIZING LIFE

Energy savings and design drives new UMB branch

Take a geothermal heat pump (GHP) system. Add enhanced design flexibility by eliminating unattractive rooftop equipment, what do you get? A 5,500 sq. ft. UMB branch bank that is functional, energy efficient and beautiful.

“We’re seeing 40 percent less energy consumption in comparison to other buildings its size,” reports Roy Allen, UMB Operations Manager. The facility located at 12210 S. 71 Highway in Grandview boasts a split-zone GHP system.

“The GHP technology produced a successful build across all aspects of the project,” reports Joe Mika, Project Manager, 360 Architecture. Mika says life-cycle projections provided by Dave Wagner, Channels Supervisor of KCP&L’s Energy Solutions group, was the catalyst for utilizing the GHP system. Wagner urges architects and engineers working with KCP&L to apply the tool “to ascertain the benefits of selecting a system and document financials for the technologies.”

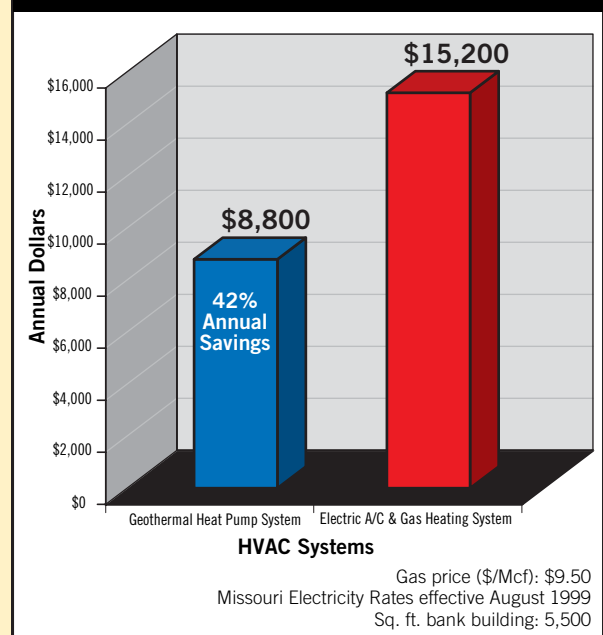
Additional life-cycle analysis by Alan Lankford, Lankford + Associates, confirmed the findings. Lankford says the technology delivers more than savings. “The system eliminated the cost of screening roof-top equipment, plus adding aesthetic value.”

Energy Consultant Craig Burgett, who coordinates UMB’s services for KCP&L says collaboration between KCP&L and contractors contributed to the project’s success. Burgett says, “Kudos go to KCP&L’s Dodson district office who fast-tracked the project to meet UMB’s requirements; and contractors Saldino Mechanical and Evans Energy Development, contractors for the 17-ton, 12-300 foot vertical well system.”

For more information on geothermal heat pump systems or to request an operating cost analysis, call Bob Harrison at (816) 245-3832.



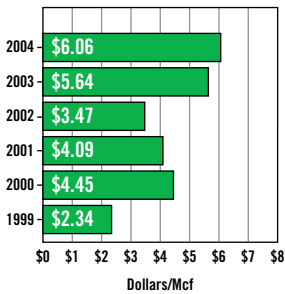
Estimated Operating Cost Comparison for UMB Bank’s New Grandview Branch



MEETING WINTER ENERGY DEMANDS

According to the AGA, heating with natural gas this winter will cost a whopping 47.6 percent more than it did last year. The EIA* Winter Fuels Outlook reports "...the natural gas market is likely to stay tight over the next couple of months, particularly in light of the supply impacts from Katrina and Rita." In the 1990s, the wholesale price of natural gas hovered at \$2 per thousand cubic feet (Mcf). Rising steadily over the past five years due to supply and demand imbalances, this year's prices are expected to peak at quadruple their 2000 rate, surpassing \$14 per Mcf.

*Source: U.S. Energy Information Administration
Chart source: www.oilenergy.com



Historic fluctuation of natural gas spot prices at the Henry Hub from 1999 to 2004

Energy policy act sets new standards; grants tax credits

Signed into law in August, the Energy Policy Act of 2005 is the first major federal energy legislation since 1992. The new law, five years in development, includes two major energy efficiency provisions: (1) tax credits for implementing advanced energy-saving technologies and practices; and (2) minimum energy efficiency standards on 16 products including interior lighting, electrical, commercial appliances and water heating.

Beginning in 2006 and extending for two years, the incentives will include more than \$2 billion for advanced energy-saving technologies and practices. Organizations implementing prescribed programs will qualify for new tax incentives. Upgrades and new purchases of efficient products will be subject to the new DOE rules.

For commercial facilities, a \$1.80 per square foot deduction will be awarded to buildings exceeding ASHRAE 90.1-2001 standards by 50% or more, with prorated deductions available for individual systems.

Commercial Buildings				
Product	Eligibility Level	Amount of Incentive	Years Covered	Notes
Whole building	50% savings	Deduction of \$1.80/sq. ft.	2006-2007	Deductions are not additive—maximum is \$1.80/sq. ft.
Lighting, HVAC or envelope	50% savings	Deduction of \$.60/sq. ft. per system	2006-2007	Savings relative to ASHRAE 90.1-2001.
Lighting savings of at least 25%	25-50% savings	Sliding scale: \$.30/sq. ft. for 25% savings	Unclear	Term of this provision depend on Treasury rulemaking.

Coverage and complete analysis of the Energy Act are available from the American Council for an Energy Efficient Economy. Coverage is available on their Web site at <http://www.aceee.org/press/0507confbill.htm>. When purchasing new equipment, ask your dealer for the most energy efficient models and information on applicable tax credits.

Reduce risk from arc flash with a hazard study

It doesn't make the news. It's probably something you don't think about. But it's a danger you and your organization may live with every day—electrical arc flash hazard.

On average, five to 10 arc flash accidents occur every day in the United States; many more go unreported. The National Fire Protection Association (NFPA) defines an arc flash hazard as "A dangerous condition associated with the release of energy caused by an electric arc."

Business Energy Analyzer. Concerned about energy costs? Looking for ways to save money? KCP&L has state of the art energy analysis tools available that can help you save money. From quick energy-saving ideas to detailed recommendations specific to your business, just go to www.kcpl.com and click on our Energy Analyzer.

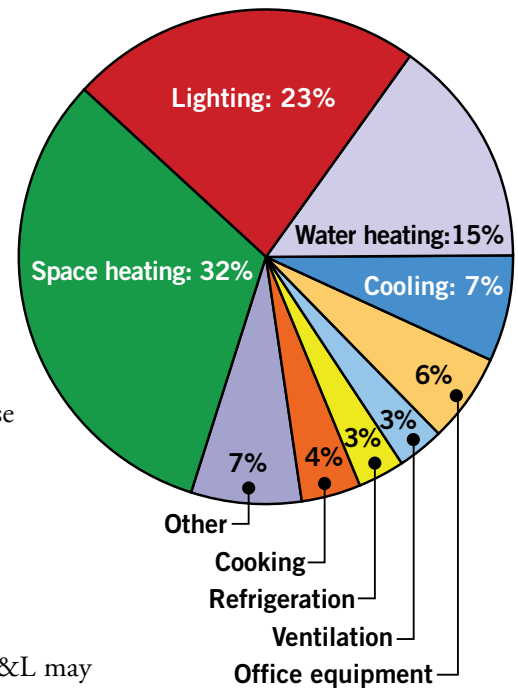


Faults during normal operations or maintenance can produce serious injury or even death. The thermal energy produced is related to the current present. The Argon National Laboratory reports an arc flash at 480 volts produces energy release equivalent to detonation of eight sticks of dynamite and a temperature of 5,000° F.

NFPA and OSHA mandate safety equipment and practices to safeguard workers including the requirement of a flash hazard analysis. KCP&L, partnered with Siemens, can deliver arc flash studies to assure your company's compliance. You receive a detailed report including the calculations needed to establish typical working distances, suitable Personal Protective Equipment (PPE) for each analysis point, identification of equipment locations that exceed available PPE ratings, related drawings, documentation and training. We recommend specific solutions to protect your personnel and facility from arc flash hazards.

To learn more about engaging KCP&L to work with you on arc flash safety, please contact your Energy Consultant.

UNDERSTAND YOUR ENERGY USE



Programs on the horizon will help you save energy dollars

Are you planning to build a new facility or to retrofit an existing one? If so, KCP&L may soon be able to help offset the costs to audit and upgrade your energy efficiency. The programs listed below are part of our balanced plan to protect the environment while meeting the energy needs of future generations. Here's a preview of what we hope to make available soon.

Energy Efficiency Audits. With this program, you could qualify for rebates of up to 50% of the cost of an energy audit by implementing at least one audit recommendation that qualifies for the Custom Rebates—Retrofit program. Rebates will pay for 50% of the audit cost—up to \$300 for facilities of less than 25,000 sq. ft., or up to \$500 for facilities over 25,000 sq. ft. An approved commercial energy auditor will be required.

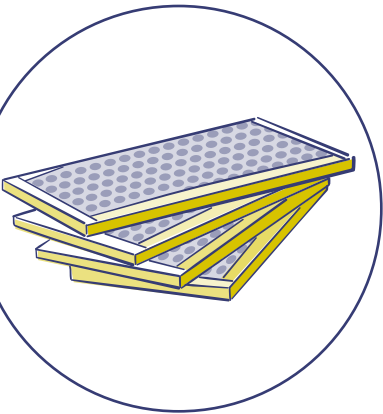
Custom Rebates—Retrofit. This program is designed to help you install, replace or retrofit electric energy-saving measures to HVAC systems, motors, lighting, pumps and more. Rebate amounts will be based on the energy saved, and the extra cost of high efficiency equipment. Implement multiple measures; receive multiple rebates. Total rebate amounts will be limited. Projects will need to be pre-qualified, so contact your Energy Consultant to see if your project is eligible.

Custom Rebates—New Construction. This would make rebates available for installation of qualifying electric energy-saving measures in new construction; measures like HVAC systems, motors, lighting and pumps. Projects will be subject to the same evaluation and conditions as the Retrofit Rebate Program.

Different commercial activities have unique energy needs. Overall, commercial buildings use more than half their energy for heating and lighting. (Commercial Buildings Energy Consumption Survey, October 2004, Energy Information Administration)

Switch to energy cost savings. With price volatility driving higher gas prices, and no end in sight, now might be the perfect time to consider switching to electric heating. For a free cost/price analysis on your facility and help with system design, call Bob Harrison at (816) 245-3832.

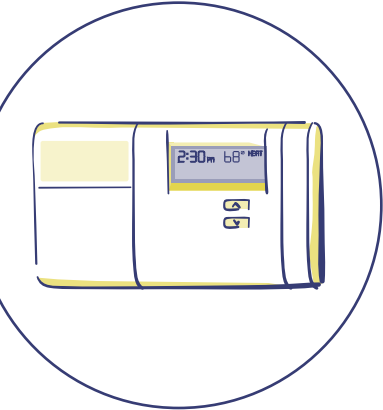
Tip



Fight high winter heating bills with energy efficiency

Perform routine maintenance on your heating and ventilation systems.

Change filters on a regular schedule. Changing out old HVAC systems now when prices are high can accelerate payback. HVAC represents about 40% of your energy budget. Savings from an electric heat pump or geothermal system—will lower your operating costs both winter and summer.



Keep out the cold.

Keep all exterior and freight doors closed as much as possible. Install additional ceiling and wall insulation where possible. Insulate water heaters and supply pipes. Water heating represents 7% of the energy use in commercial buildings.

Manage temperatures inside.

Set your thermostat to 68 degrees during work hours; lower it to 55 degrees during off hours. Each degree you lower the heat saves up to 5%. Automate savings with a programmable thermostat; a locking cover will eliminate unauthorized changes to settings. To advance energy saving and control further, consider an energy management system to control heating, cooling and lighting.



Light the way to lower costs.

Use compact fluorescent light bulbs instead of incandescents. They last up to 10 times longer and can reduce lighting costs by 75%. Retrofit T12 lights and magnetic ballasts to T8 lights with electronic ballasts. Install motion detectors in frequently unoccupied areas such as bathrooms, copy rooms and warehouses.

Take the load off office equipment.

Purchase Energy Star®-rated computers, printers, copiers and facsimiles. E-mail documents instead of using the fax machine.



P.O. Box 418679
Kansas City, MO 64141-9679

PRESORTED
FIRST CLASS
US POSTAGE
PAID
PERMIT 397
KCMO

The Wire is published quarterly for commercial customers by KCP&L, a wholly owned subsidiary of Great Plains Energy. If you have story ideas, comments or suggestions, email them to TheWire@KCPL.com.

© 2006 Kansas City Power & Light Company