

## *Burying Power Lines*

### **FAST FACTS**

During large storms, our customers often ask why utility companies don't bury power lines. The short answer is "we do." We've been burying lines in new subdivisions since the 1970s. However, when customers ask why we don't bury existing above-ground lines, the answer is somewhat complex.

- Following a large ice storm in 2007, which left about 600,000 customers without power throughout Oklahoma, the Oklahoma Corporation Commission (OCC) did a study about the feasibility of burying lines. The study found that no public utility in Oklahoma could find a way to pay for underground line conversion.
- The study found that the cost for converting from overhead to underground lines would be a minimum of \$435,000 per mile. With a 30,000 square mile territory, our cost to bury the lines would be \$30.5 billion to bury all our distribution lines and \$27 billion to bury our transmission lines in Oklahoma.
- With the high cost to bury lines, the impact to an average residential customer's bill would be an increase of \$80 to \$260 per month for a 30-year time period.
- Even without the cost issue, we couldn't bury the main feeder "backbone" lines (the ones you see along roads and highways). That's because conditions are constantly changing –the amount of load on the lines, positions on the streets, etc. Each time a community increases load (usually due to new development) or widens a street, we must have access to the lines. Burying these lines would not be feasible and could be costly.
- The time frame for burying all lines within our service territory would be more than 20 years.
- For safety reasons, high-voltage transmission lines can't be buried.

### **WHAT WE THINK**

While burying lines can minimize outages due to forces of nature, such as ice storms and high winds, this tactic doesn't prevent all outages. In fact, outages are often more prevalent from damaged underground lines during the summer, when dry conditions cause the ground to shift and thereby cause cracks or breaks in the lines. Because of the time it takes to locate the issue and dig into the ground, it takes much longer to repair an underground line, which means people are out for a much longer time.

We believe a more economical way to combat outages is through system hardening actions we already have in place. These actions include a more aggressive tree pruning and line-clearing program and investing in infrastructure with more modern circuits and stronger poles.