

EXECUTIVE SUMMARY

House Joint Resolution No. 153 of the 2004 Regular Session of the Virginia General Assembly requested the State Corporation Commission to study the feasibility, costs and funding options relative to the placement of currently existing overhead utility distribution lines, and any new distribution lines, underground. The resolution was passed in anticipation that placing distribution lines underground (1) would reduce the number of weather-related utility disruptions, (2) may reduce utility line maintenance costs, and (3) would minimize the visual pollution in the Commonwealth. In the conduct of this study, participation of interested parties was solicited and various state and international studies were reviewed.

The primary advantages of underground circuits are improved aesthetics and overall improved reliability. In addition, underground rights-of-way require little tree trimming and underground facilities are much less susceptible to motor vehicle accidents. However, the relocation of currently existing overhead lines would result in tremendous costs and significant disruptions. In addition, a major relocation initiative could take decades to complete and encounter complications regarding underground damage prevention and attainment of new easements.

The cost associated with the placement of the currently existing overhead electric utility distribution facilities underground was estimated by utilities to be over \$80 billion. The resultant annualized revenue requirement on a per customer basis would be approximately \$3,000. The additional cost to bury existing overhead telecommunications and cable television lines was estimated to be approximately \$11 billion.

The potential benefits, both to the utilities and to the economy, resulting from the elimination of tree trimming maintenance, vehicle accidents, post storm restoration and lost sales during outages, do not appear to be sufficient to offset the initial construction costs associated with a comprehensive program to relocate the currently existing overhead utility distribution lines to underground. The placement of all new distribution lines underground, though not as costly, is also probably not cost effective.

Regardless of the funding options available for a comprehensive statewide initiative, the costs would be paid ultimately by consumers, either directly or indirectly, in the form of prices, taxes, or utility rates. Anecdotal

evidence suggests that consumers might not be willing to pay the costs necessary to fund a comprehensive statewide initiative.

Based on our research and analysis and input from interested parties, the wholesale relocation of the currently existing overhead utility distribution lines and placement of all new utility distribution lines underground is probably not reasonable. The economic effects of such an effort on state and local governments or utilities, and ultimately consumers, would be significant. Recent studies by the Public Staff of the North Carolina Utilities Commission, the Maryland Task Force to Study Moving Overhead Utility Lines Underground, and the Edison Electric Institute support these conclusions.

While a comprehensive statewide relocation initiative does not appear to be reasonable from an economic viewpoint, certain localities and their citizens might value the aesthetic benefits enough to be willing to plan, implement and fund a local undergrounding initiative. It appears that localities can require the placement of new distribution lines underground, but it is not clear if they have the authority needed to mandate the relocation of existing overhead lines underground.