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TRENCHLESS PIPE SPLITTING AND KEYHOLE TECHNOLOGIES

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ABSTRACT: With numerous, aging copper and plastic service lines in need of replacement, the natural gas industry is looking for new replacement techniques that limit disruption and reduce installation times. Gas Technology Institute is working with TT Technologies, to develop new techniques and methods for effectively and efficiently replacing these small diameter gas lines such as the mini-pipe splitting system.

New mini-pipe splitting systems can be used for both small-hole (keyhole) and traditional trenchless work for replacing copper or plastic service lines. The system rehabilitates the old pipe by simultaneously splitting the existing gas service while pulling in a new polyethylene (PE) service line. The existing gas service is split and expanded to allow for the subsequent replacement service to be installed.

Cost-saving opportunities are one of the most attractive benefits of these techniques, especially when it comes to excavation and restoration requirements. The mini-pipe splitting system can be used through cored openings in pavement and through a reduced excavation in the parkway.

In parkway applications, crews simply spade out a 15 to 18-inch section of sod that is to be reused after the excavation is restored. Excavation of the soil can be performed by using vacuum equipment or small backhoes. After replacing the section of sod, grass seed can be added around the edges, this process eliminates a trip by a landscape contractor. Some of the intangible costs include improved public and municipality appeal due to the reduced disruption of the property.