



# Joint Commission on Technology and Science

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## Long History of Customer Involvement

- Dominion was one of the first utilities in the nation to hold “open house” workshops, resulting in:
  - better power line routes
  - greater understanding of our unique responsibility

**provide reliable electric service  
at reasonable cost**



# Dominion and the W&OD Trail

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- First-of-a-kind agreement on how to manage the power lines and vegetation along the trail

- maintain the beauty of the 50-mile long park
- maintain reliable electric transmission service

The screenshot shows a web page with a blue header. The header includes the Dominion logo with the tagline 'It all starts here', the slogan 'HAVE YOU SEEN D TODAY?', and a navigation menu with links for Customer Service, Products, News, Investors, About Us, Contact Us, and a search bar. The main content area features a photo of two men in business attire reviewing documents. The title is 'Protecting the W&OD Trail' with the subtitle 'Dominion's Forestry Efforts'. The text below states: 'Dominion recognizes the unique, historic nature of the W&OD Trail. The company is taking steps to preserve the natural beauty of the 47-mile stretch of land while continuing to provide reliable electric service to 1 million people in Northern Virginia. Dominion is working with its neighbors to protect the W&OD Trail.' To the left is a 'Related Topics' sidebar with links to 'Protecting the W&OD Trail', 'Special Initiatives - W&OD Trail', 'Frequently Asked Questions', 'Tree Trimming Brochure', 'Right-of-Way Vegetation Mgmt.', 'Vegetation Guidelines for Customers', 'Ladders & Power Lines', 'Downed Lines and Safety', and 'Trees and Plants - Home Page'. To the right is a 'Resources' section with links to 'View our presentation, "Dominion and the W&OD Trail."', 'View a Memorandum of Understanding between Dominion Virginia Power and Northern Virginia Regional Park Authority to establish vegetation management guidelines for the W&OD Trail.', 'Learn about Dominion's special initiatives on the W&OD Trail.', 'Review a list of frequently asked questions about tree trimming practices.', and 'View images of trees and shrubs planted by Dominion.'. A photo of a newly planted tree in a field is shown on the right side of the page.

These "before" and "after" photos show an area where trees have been planted. Dominion has planted 500 trees on the W&OD trail, and has plans to plant 500 more. Six-foot trees are used that are compatible to wildlife and, at maturity, do not affect electric service reliability. ([Learn more](#), and [view additional images.](#))



## Today's Topic

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- When determining whether to build overhead or underground transmission power lines, Dominion considers three issues:
  - Reliability
  - Operability
  - Cost





## Reliability

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- Overhead and underground each has its reliability challenges
- Easier to locate a problem on an overhead power line than an underground line

### *Average repair time*

Line type

Repair time

Overhead

hours

Underground

days or weeks



## Operability

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- Underground transmission lines add operating restrictions to the electric transmission system
  - System voltage can rise to unacceptably high levels
  - Harmonics can cause damage to customer equipment



## Cost

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- Placing our transmission lines overhead has been in the best interest of all of our customers from a cost perspective
  - Underground is 8 - 10 times more expensive than an overhead project
- Dominion has a responsibility to build a reliable system in as cost-effective manner as possible

## New Technologies

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- Among the first utilities in the United States to “barehand” high voltage power lines
- No customer downtime while repairs are underway



# A Great Company in a Vital Industry

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**Dominion**

[www.dom.com](http://www.dom.com)