

# STUART AREA IMPROVEMENTS PROJECT

## STUART - FLOYD TRANSMISSION LINE REBUILD



Appalachian Power representatives plan to upgrade the local electric transmission grid in Virginia. The Stuart Area Improvements Project provides a new electrical source for the region and increases reliability for customers. The project involves constructing several components in the next few years. The Stuart - Floyd component, located in Patrick and Floyd counties, involves upgrading approximately 22 miles of 69-kilovolt (kV) transmission line to 138-kV, upgrading one substation and expanding one substation.

### WHAT

The Stuart-Floyd Transmission Line Rebuild Component involves:

- Upgrading approximately 22 miles of 69-kV transmission line to 138-kV in or near the existing right-of-way, which may include new or updated property easements
- Upgrading the Woolwine Substation
- Expanding the Floyd Substation
- Retiring the Stuart Substation and building a new substation in Stuart (as part of Stuart - Willis Gap Transmission Line Component)

This project was approved by the Virginia State Corporation Commission (SCC) Summer 2024.

### WHY

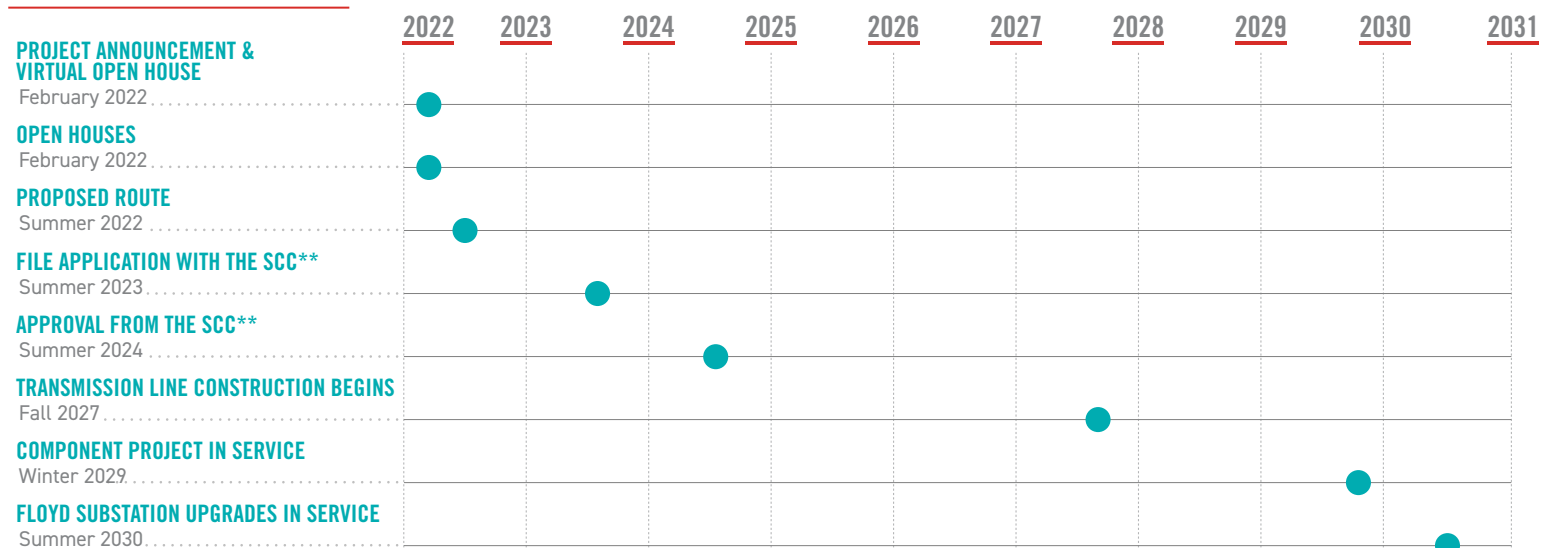
Project benefits include:

- Modernizing the aging 69-kV electrical infrastructure to a more reliable, higher capacity 138-kV transmission system
- Increasing electrical capacity at the Woolwine and Floyd substations to improve service for area customers and support future economic development at the Floyd Regional Commerce Center
- Establishing a second source of power and connecting the local 138-kV electrical system to the new substations and transmission lines in the Claudville, Stuart and Willis Gap communities (Stuart - Willis Gap Transmission Line Component)
- Providing a more robust and reliable electric transmission system to support local communities

### WHERE

The project begins at the Floyd Substation located off Route 615 near the town of Floyd and travels south approximately 11 miles to the Woolwine Substation located off Woolwine Highway in Woolwine. The project continues south approximately 11 miles and connects to the new Mayo River Substation off Commerce Drive just outside the town of Stuart.

### PROJECT SCHEDULE\*



\*Timeline subject to change.

\*\*Virginia State Corporation Commission

## TYPICAL STRUCTURES

Crews plan to rebuild most of the line using steel, H-frame structures; however, crews plan to use steel, double circuit single-pole structures between Highway 221 and the Floyd Substation and north of the proposed Mayo River Substation. At select locations, crews may use steel single-pole structures, lattice towers and three-pole structures with guy wires to meet engineering needs.

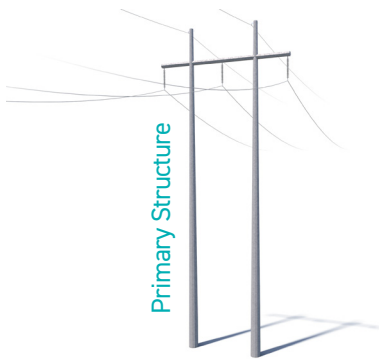
New structures will be typically 35 feet taller on average than the existing structures.

Existing Structure Height: **Approximately 55 feet\***

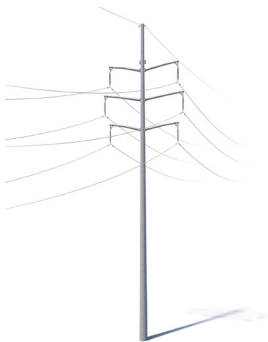
Typical Structure Height: **80-100 feet\***

Right-of-Way Width: **Approximately 100 feet\***

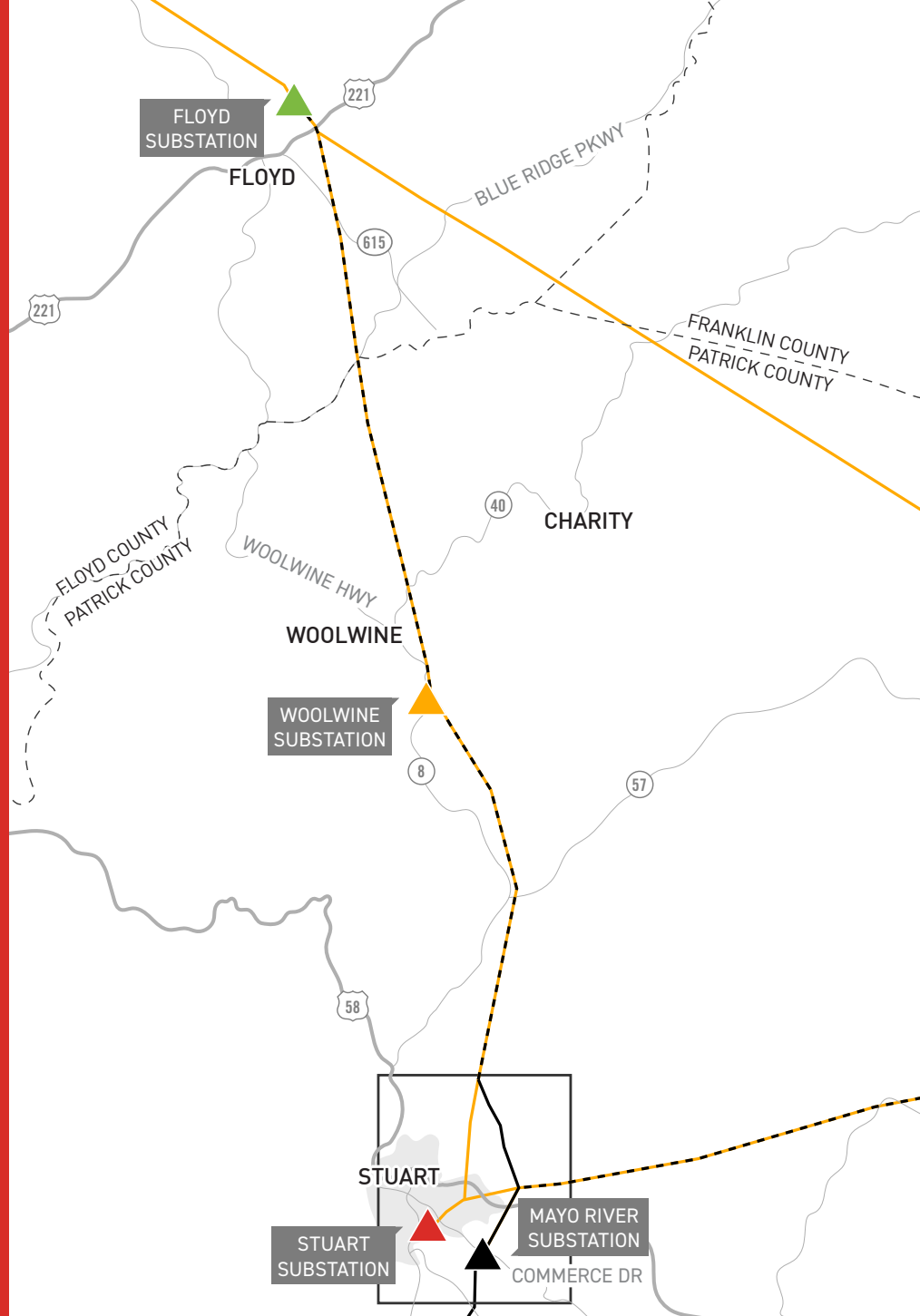
\*Exact structure, height and right-of-way requirements may vary



Single Circuit H-Frame



Double Circuit Single-Pole



### STUART AREA IMPROVEMENTS PROJECT: STUART - FLOYD TRANSMISSION LINE REBUILD

- EXISTING TRANSMISSION LINE
- - - TRANSMISSION LINE TO BE REBUILT
- NEW TRANSMISSION LINE
- PREVIOUSLY ANNOUNCED IN THE STUART-WILLIS GAP TRANSMISSION LINE COMPONENT
- ▲ EXISTING SUBSTATION
- ▲ NEW SUBSTATION
- ▲ SUBSTATION TO BE RETIRED
- ▲ SUBSTATION TO BE EXPANDED



APPALACHIAN POWER VALUES YOUR INPUT ABOUT THIS PROJECT. PLEASE SEND COMMENTS AND QUESTIONS TO:

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