

STUART AREA IMPROVEMENTS PROJECT

STUART - FLOYD TRANSMISSION LINE REBUILD PROJECT



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 20 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 20 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 requires approval by the Virginia State Corporation Commission (SCC).

WHY

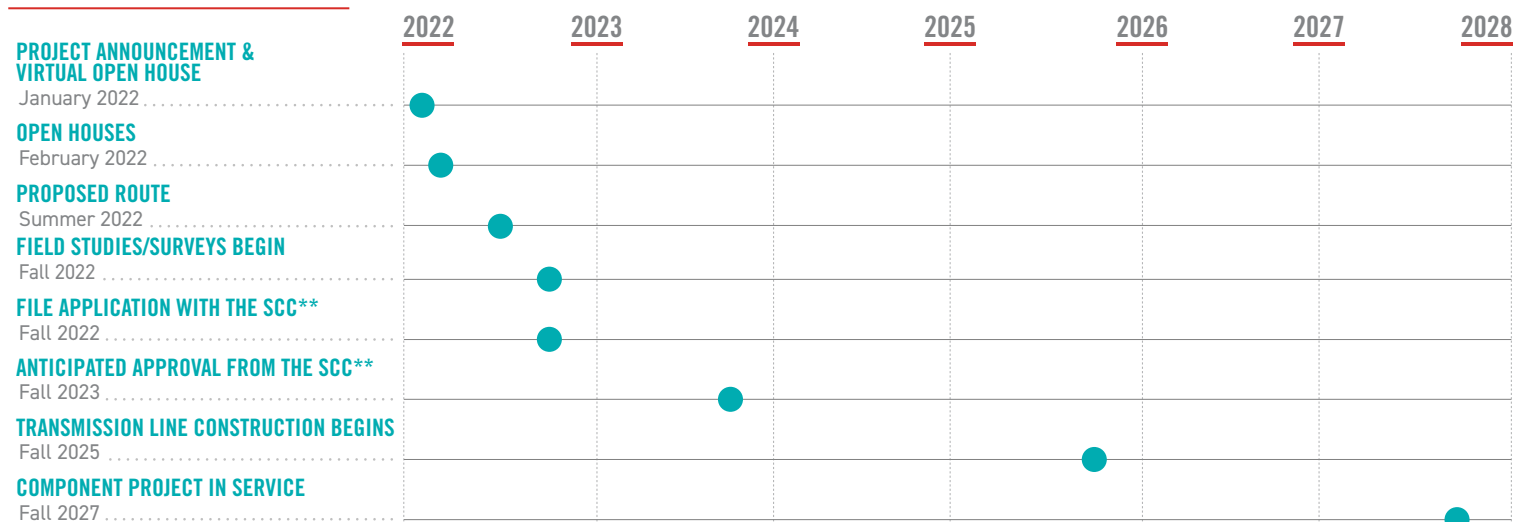
Project benefits include:

- 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 proposed in the Claudeville, 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 10 miles to the Woolwine Substation located off Woolwine Highway in Woolwine. The project continues south approximately 10 miles and connects to the potential substation off Commerce Drive just outside the town of Stuart.

PROJECT SCHEDULE*



*Timeline subject to change.

**Virginia State Corporation Commission

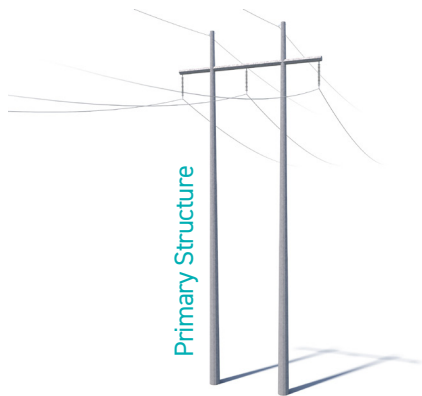
TYPICAL STRUCTURES

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. At select locations, crews may use steel single pole structures, lattice towers and three-pole structures with guy wires to meet engineering needs.

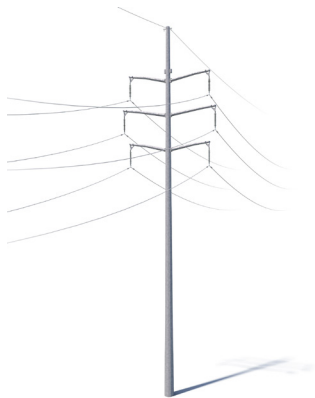
Typical Structure Height: **80-100 feet***

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

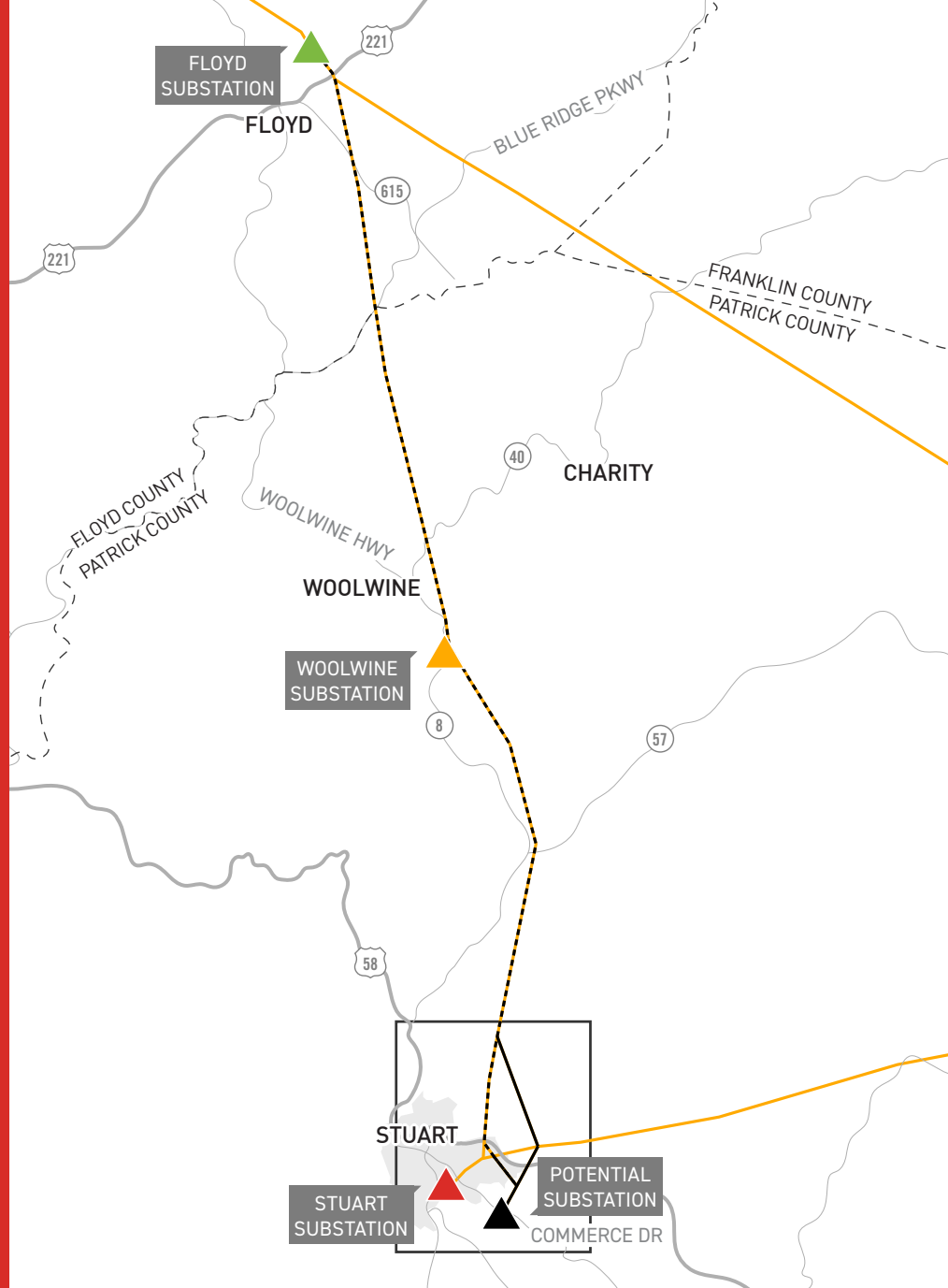
*Exact structure, height and right-of-way requirements may vary



Single Circuit H-Frame



Double Circuit Single-Pole



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

- | | |
|---|---------------------------|
| EXISTING TRANSMISSION LINE | EXISTING SUBSTATION |
| TRANSMISSION LINE TO BE REBUILT | POTENTIAL SUBSTATION |
| STUDY SEGMENT | SUBSTATION TO BE RETIRED |
| PREVIOUSLY ANNOUNCED IN THE STUART-WILLIS GAP TRANSMISSION LINE COMPONENT | SUBSTATION TO BE EXPANDED |

WHAT ARE STUDY SEGMENTS?

The proposed study segments are alternatives to review in determining a final line route. Not all study segments are constructed. Rather, the company selects the final line routes based on public input and feasibility.

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

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