

# STUART AREA IMPROVEMENTS PROJECT

## STUART - BASSETT TRANSMISSION LINE 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 – Bassett component involves rebuilding approximately 23 miles of 69-kilovolt (kV) transmission line to 138-kV, building approximately 3 miles of new 138-kV transmission line, upgrading three substations and building two new substations.

### WHAT

The Stuart-Bassett Transmission Line Component involves:

- Rebuilding approximately 23 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
- Building approximately 3 miles of 138-kV transmission line in new right-of-way
- Upgrading three substations
- Building two new substations
- Retiring four substations

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

### WHY

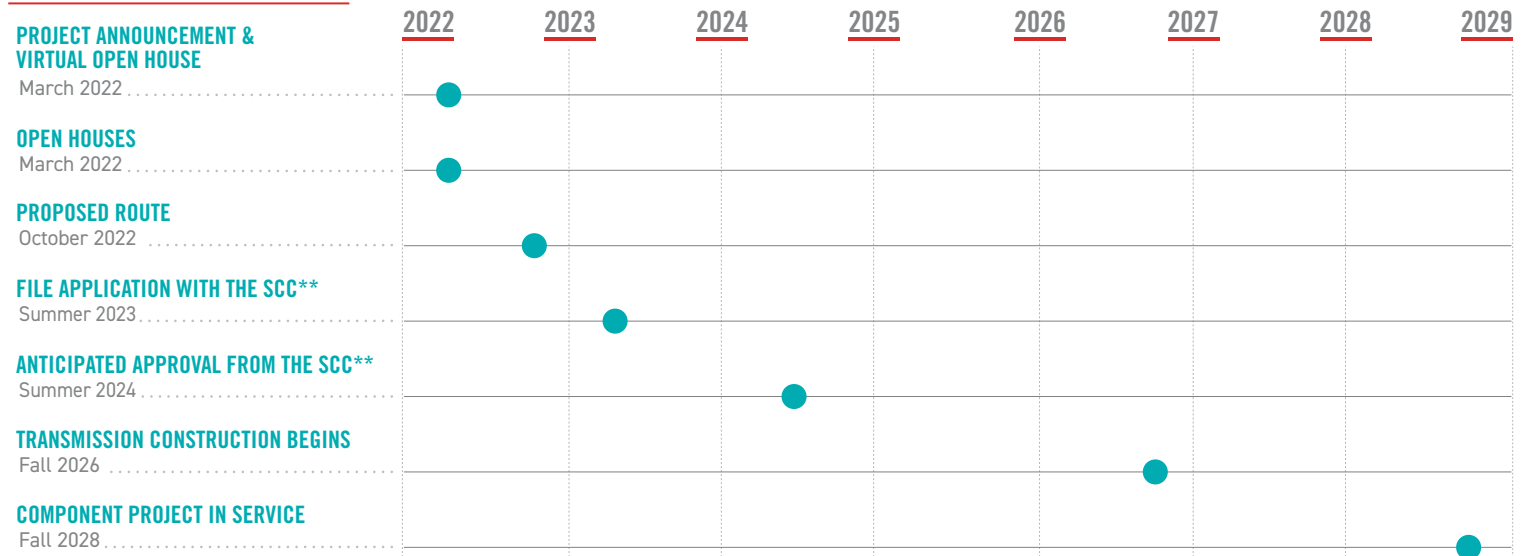
Project benefits include:

- Modernizing the aging 69-kV electrical infrastructure to a more reliable, higher capacity 138-kV transmission system
- Upgrading three substations and building two new substations to provide increased capacity to serve area customers and reduce service interruptions
- Providing a more robust and reliable electric transmission system to support local communities, businesses and future growth

### WHERE

The project begins at a structure near the proposed Mayo River Substation off Commerce Drive in Patrick County and travels northeast 10 miles to the existing Patrick Henry Substation at the Patrick and Henry county line. The project continues 10 miles northeast towards the existing Fieldale and proposed Stoneleigh substations; then, northwest 6 miles to the proposed Smith River and existing Philpott Dam substations.








### PROJECT SCHEDULE

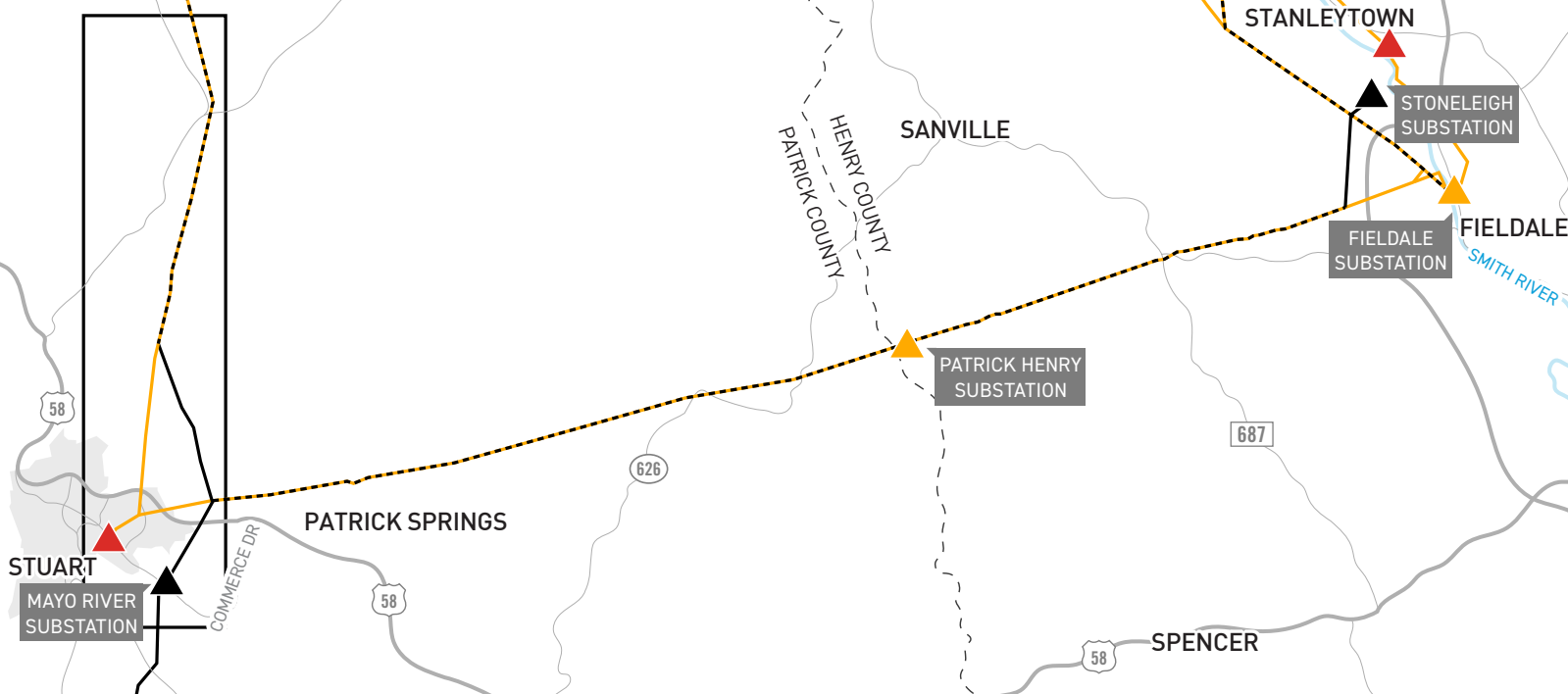


\*Timeline subject to change

\*\*Virginia State Corporation Commission

# STUART AREA IMPROVEMENTS PROJECT: STUART - BASSETT TRANSMISSION LINE PROJECT

-  EXISTING TRANSMISSION LINE
-  TRANSMISSION LINE TO BE REBUILT
-  PROPOSED TRANSMISSION LINE
-  ANNOUNCED IN PREVIOUS PROJECT COMPONENTS
-  SUBSTATION TO BE RETIRED
-  PROPOSED SUBSTATION
-  EXISTING SUBSTATION



## TYPICAL STRUCTURES

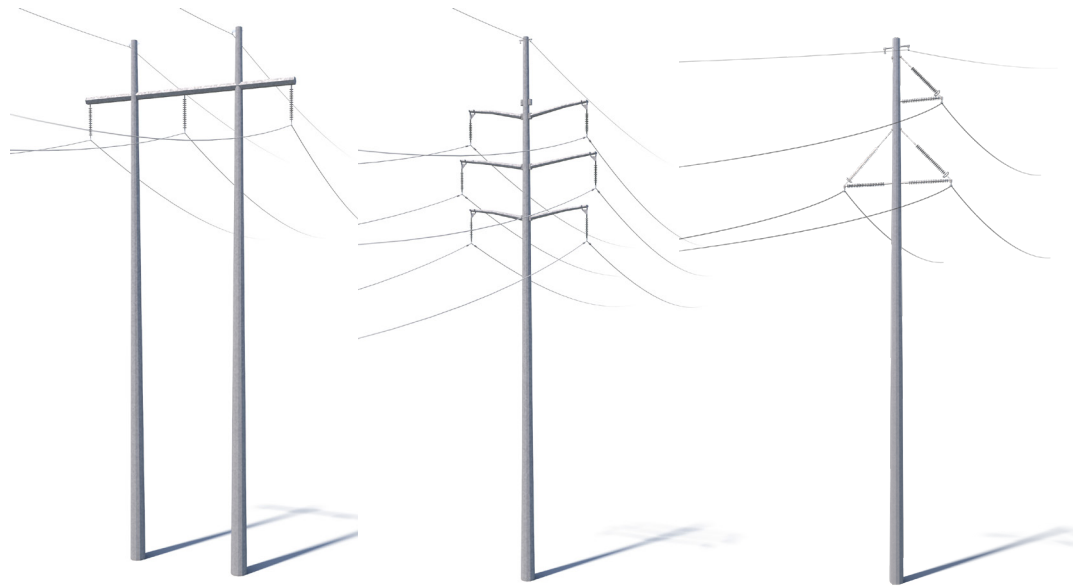
Crews plan to rebuild the line using steel H-frame structures and single poles. At select locations, crews may use lattice towers and three-pole steel structures with guy wires to meet engineering needs. Proposed structures will be typically 45 feet taller on average than the existing structures.

Typical Structure Heights\*:

- Steel H-Frames Structures: 80 feet
- Double Circuit Single-Pole Structures: 100 feet
- Single Circuit Single-Pole Structures: 80 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

Single Circuit Single-Pole

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

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