STUART AREA IMPROVEMENTS PROJECT

STUART - WILLIS GAP TRANSMISSION LINE

APPALACHIAN POWER
An AEP Company

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 - Willis Gap component involves building approximately 25 miles of 138-kilovolt (kV) transmission line, upgrading one substation and building two new substations in Patrick and Carroll counties.

WHAT

The Stuart - Willis Gap Transmission Line Component involves:

- Building approximately 25 miles of transmission line*
- Building two new substations
- Retiring one substation
- Upgrading two substations

*Company representatives determined the proposed power line route after reviewing land use, environmental impact and community input provided during two in-person open houses.

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

WHY

Project benefits include:

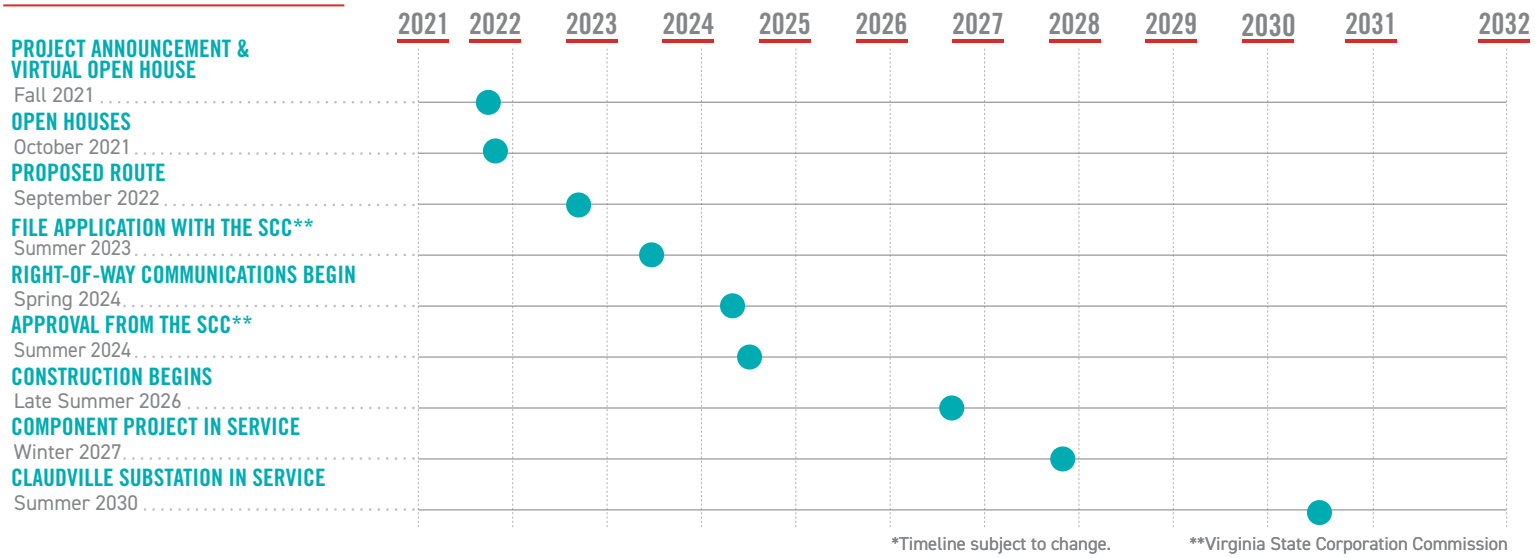
- Modernizing the local, aging 69-kV and 138-kV electrical infrastructure with an updated 138-kV transmission system provides reliable electric service.
- Installing the additional 138-kV transmission line from Stuart to Willis Gap area is the first phase of the larger Stuart Area Improvements Project that will ensure adequate power delivery to the area to support today's electrical load. Additionally, in the event the existing line experiences an extended outage, the new line can continue to serve customers once all phases of the project are completed.
- Building the new substations, with one centrally located in Claudville, and another near the town of Stuart, shortens the local distribution power line lengths between substations and reduces service interruptions.
- These combined improvements provide a more reliable transmission system and increase reliability for area customers.

WHERE

The route for the new transmission line begins at the existing Willis Gap Substation located off Orchard View Drive just inside Carroll County.

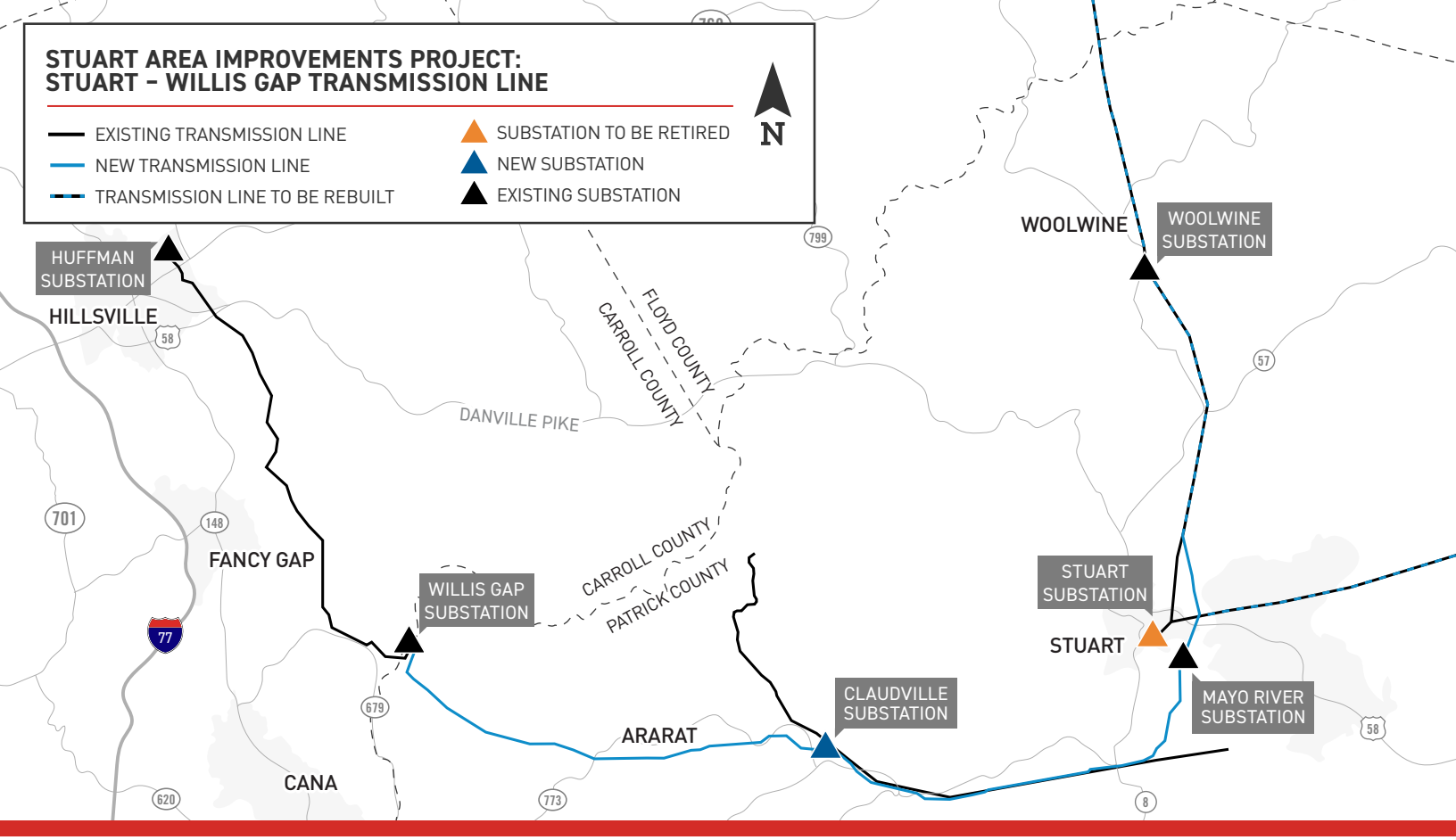
The route then continues east for approximately 13 miles towards the new Claudville Substation, located off Hookers Creek Road in Patrick County near the community of Claudville. The route then travels east for approximately 12 miles and ends at the new Mayo River Substation located off Commerce Drive near the Town of Stuart.

PROJECT SCHEDULE*



*Timeline subject to change.

**Virginia State Corporation Commission

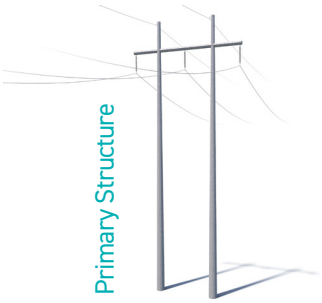


TYPICAL STRUCTURES

Plans call for the new line to be built using mostly H-frame structures. At select points, steel lattice towers, single-pole, and three-pole structures with guy wires may be installed to meet engineering needs.

Typical Structure Height: 80 feet*
Right-of-Way Width: 100 feet*

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

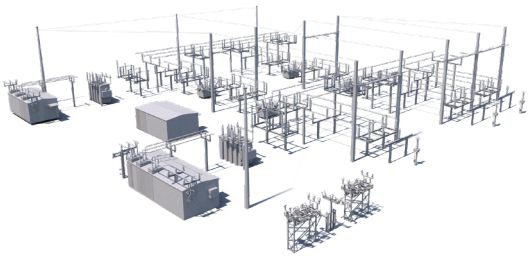


Single Circuit H-Frame

TYPICAL SUBSTATION

Substations serve as electrical intersections directing the flow of electricity and either decrease or increase voltage levels for transport. Substations transform 69-kV and 138-kV electricity into lower distribution level voltages such as 34.5-kV, 12-kV, or 7.2-kV.

*Substation shown is a general depiction of the proposed facility that will be built for this project. It does not represent final design.



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

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