

Summary of Article VII Application

On November 5, 2020, New York Transco LLC (Transco) submitted an Article VII application (the Application) to the New York Public Service Commission (PSC) to construct, operate, and maintain the Rock Tavern to Sugarloaf (RTS) project (PSC Case Number 20-T-0549). The summary below is of select portions of the Application that may be of stakeholder interest. The full Application includes 15 exhibits and 9 appendices and can be accessed through www.RTSUpgrade.com.

Exhibit 2: Location of Facilities

This exhibit details the RTS locations and components through the Orange County communities of New Windsor, Hamptonburgh, Blooming Grove, and Chester on an existing transmission corridor or on utility-owned property, including:

- Replacement of an existing 12-mile 115 kV electric transmission line between the existing Rock Tavern and Sugarloaf substations.
- Upgrades at the existing Central Hudson 115 kV Rock Tavern Substation in New Windsor.
- Rebuilding Central Hudson’s existing Sugarloaf Switching Station in Chester to accept the RTS line.
- Construction of a new 1,000-foot 138 kV transmission line between the rebuilt Sugarloaf Substation and Orange and Rockland’s existing adjacent 138 kV Sugarloaf Switching in Chester.
- Exhibit 2 (4 parts) includes detailed maps of the RTS route. Exhibit E-2 provides more detail on the station-specific work.

Exhibit 3: Alternatives

This exhibit details the history of the Public Policy Transmission Planning Process and how and why a transmission upgrade in Orange County was identified by the New York Independent System Operator (NYISO) as a critical component to help satisfy a PSC-declared need for additional transmission capacity to help bring power from upstate to downstate.

Transco did consider other solutions to address the identified constraints including both overhead and underground solutions between the Sugarloaf Substation and the Shoemaker Substation in Walkkill.

- The overhead solutions would have required the construction of a temporary transmission line, had more natural resource impacts and resulted in higher costs than the RTS.
- The two underground solutions required burial on state and local roadways. These alternatives proved to be more costly and with significant construction disturbance.

Ways to Review the Application



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PSC Case #20-T-0549



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Exhibit 4: Environmental Impact

This exhibit has three parts, detailing nine areas supported by technical studies to determine existing conditions, RTS potential effects, and, where needed, mitigation measures to avoid or reduce impacts.

Construction Methods This includes environmental controls, limited vegetation clearing, foundation drilling, and above-ground structure erection and conductor (wire) pulling. No blasting is anticipated. Vegetation work includes removal of low-growth plants in the corridor for construction, as well as select tree removals for safe line operation.

Land Use Because RTS will be constructed and operated entirely within the existing electric transmission right(s)-of-way (ROW) or utility-controlled property, minimal impacts are anticipated to occur. The Project does not conflict with local land use plans, comprehensive plans, or the Orange County Open Space Plan.

Visual Resources Based on the Project's viewshed analysis, 32 specific visual resources may have a potential view of the RTS, but it is expected to be minimal. The viewshed analysis concluded that the Project will not affect the community's overall visual or aesthetic characteristics.

Cultural Resources This generally includes archaeological resources and architectural or other built resources that are eligible for or listed in New York's State Register for Historic Places and/or National Register of Historic Places. No significant adverse impacts to cultural resources resulting from construction, or operations and maintenance of the Project facilities are anticipated. Transco is conducting further research at the request of the New York Office of Parks, Recreation, and Historic Preservation (OPRHP).

Terrestrial & Wildlife Resources There will be a year construction window when there may be temporary short-term disruption to use by various species along various components of the RTS ROW. The ROW will be available for use by many of those species during and following construction and restoration. Specific design drawings to evaluate potential RTS effects on terrestrial and wildlife resources will be developed and included in the Project's Environmental Management and Construction Plan (EM&CP), and will include mitigation measures for protected species. The following State or federally-protected species are noted to occur within, or near, RTS: Indiana bat; Northern long-eared bat; Northern cricket frog; Bog turtle; Timber rattlesnake; Davis' sedge; and small whorled pagonia. No protected plant species were identified to be impacted. Field review for invasive species also has been performed, and measures to prevent the spread will be presented in the EM&CP. Preliminary consultation has been performed with the U.S. Fish and Wildlife Service (USFWS) and NY Department of Environmental Conservation (NYDEC).

Topography & Soils The RTS facilities will be designed, constructed, operated, and maintained to be compatible with the local geologic conditions. There are no identified geologic resources that would have an adverse effect on the installation and operation of RTS facilities. RTS construction and/or operation will not result in any permanent or significant temporary changes in topography or soil materials.

Water Resources Current design includes installation of 12 new structures within field-delineated wetlands (report in Appendix F), three structures in NYSDEC-regulated wetlands, and nine structures in NYSDEC-mapped wetland buffers. Mitigation measures during construction will be used. No NYSDEC-protected streams are located within the ROW. Impacts to other streams will be avoided and/or minimized to the greatest extent practicable.

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Exhibit 4: Environmental Impact (*cont.*)

Noise A sound study found that noise levels resulting from the operation of RTS are projected to be below the NYSDEC guidelines.. Audible noise levels during construction will be periodic and construction equipment related. See Appendix G.

EMF The electric and magnetic fields (EMF) study found that EMF levels for RTS will be similar to existing conditions that meet State guidelines. More information on EMF in Appendix H.

Exhibit 6: Economic Impacts

RTS is expected to yield positive economic impacts from local spending to support construction, using local union labor where possible, and tax revenues from the capital investment. Local tax revenues are projected to result in up to \$3.4 million per year.

Exhibit E-1: Description of the Proposed Transmission Line

This exhibit details the transmission line work and structure components, including the number of structures to be installed. The RTS will require the removal of 88 structures and the installation of 91 new structures.

In addition, the application includes various types of design drawings for RTS. Of particular note:

- RTS is designed and will be built to the latest edition of the National Electrical Safety Code (NESC) and will meet heavy loading, extreme wind, and extreme wind with ice minimum standards.

- The conductor (wires) for the 115 kV line will be 3-phase twin bundled 1590 thousand circular mils (kcmil) 45/7 "Lapwing" aluminum conductor steel reinforced (ACSR). The Lapwing conductor is 1.790 pounds per linear foot. In addition, the 138 kV line connecting the Sugarloaf Substation and the 138 kV Sugarloaf Switching station will utilize the same Lapwing conductor type.

- An optical ground wire (OPGW or, shield wire) will be installed to shield the line from lightning strikes and provide a telecommunications path for the line.

- Insulators will be ceramic suspension-type ball-and-socket insulators in an "1" configuration. Insulator color will match the finish of the new structures to the greatest extent possible. To that end, grey ceramic insulators will be used with the galvanized steel structures.

- The primary structure type will be single-circuit, delta configuration tubular-steel monopoles. Structure heights will range from 60 feet tall to 110 feet tall. On average the new structures are six feet taller than the existing structures that will be replaced.

- Two types of foundations will be used for the steel structures:

- (1) Direct embedded consists of burying the steel structure to the appropriate loading depth and backfilling with crushed stone.

- (2) Reinforced concrete drilled shafts will be used if a structure is supporting significant loads. Preliminary design, indicates that these are expected to range from 6 feet to 12 feet in diameter. Further details on the structure foundations will be provided in the EM&CP.

Exhibit E-3: Underground Construction

Transco is not proposing to construct any portion of RTS underground. See Exhibit 3.

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Exhibit E-4: Engineering Justification

This exhibit details the need for and benefits from RTS.

The State's existing electric transmission infrastructure is aging, congested, and cannot accommodate the State's clean energy goals, including the requirement that at least 70% of New York's electricity come from renewable energy sources by 2030.

Combined with other identified upgrades, RTS will:

- Provide for greater transfer capability to help relieve congestion between upstate and downstate New York;
- Reduce costs;
- Allow for larger amounts of power, particularly renewables, to be transmitted to regions where demand is greatest;
- Reduce environmental and health impacts; and,
- Improve system resiliency and operability during extreme weather events.

Basic Steps in Article VII Process:

- Application reviewed and deemed complete
- Settlement Negotiations & Joint Proposal
- Receipt of Certificate of Environmental Compatibility and Public Need
- File Environmental Management & Construction Plan (EM&CP)
- Review and Approval of EM&CP
- Notice to Proceed to Construction

Exhibit E-5: Effect on Communications

RTS is not expected to have adverse effects on communications facilities (i.e., television, radio, mobile phone, cable, fiber optic, microwave, airport, navigation, etc.) during construction or operation.

Exhibit E-6: Effect on Transportation

Operation of RTS will have no permanent impact to transportation (airports, heliports, railroads, roads or pedestrian traffic).

RTS crosses five State roads, one County road, and 10 town roads. Maintenance and Protection of Traffic (MPT) plans will be developed for each road crossing and construction access point to provide a safe construction zone. Transco will work with individual towns and Orange County regarding their specific maintenance and protection of traffic standards and parking restrictions during construction.



Photo of the existing corridor in New Windsor



Photo simulation of the upgraded 115 kV line in New Windsor. Note that the other, larger 345 kV structure is not part of RTS and will remain as it is today.