



Ulster County

PLANNING DEPARTMENT

244 Fair Street, PO Box 1800
Kingston, N.Y. 12402-1800

Dennis Doyle, Director
Kristen E. Wilson, Deputy Director

December 11, 2025
Supervisor Walsh
Supervisor Parete
Towns of Rosendale and Marbletown
1915 Lucas Turnpike,
Cottkill, NY 12419
Via Email

RE: Ulster County Proposed Public Safety Radio Tower - Response to Comments

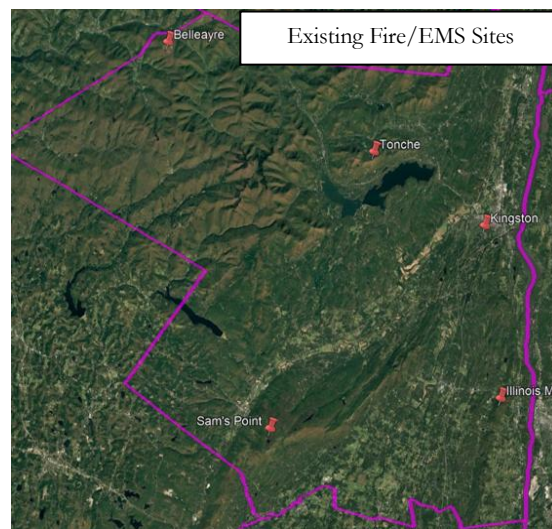
Dear Supervisor Walsh and Supervisor Parete:

Please accept the following in response to the Town Board's request that Ulster County address the comments heard at the public hearing on the County's proposed Public Safety Radio Tower. Specifically, this will address need for the facility, the selection of the Town of Rosendale site in comparison to the location at SUNY Ulster, as well as concerns regarding radio frequency (RF) emissions from the project.

Ulster County Public Safety Radio System

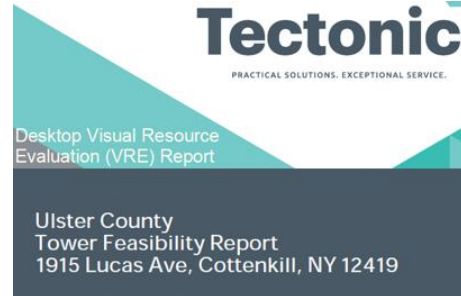
Ulster County Emergency Communications System presentation by NYSTEC to the Ulster County Legislature in December 2024 provides an excellent visualization of the need for additional tower locations as the County seeks to improve coverage for all first responders that utilize its system (Exhibit 1). The presentation provides data on existing coverage broken down by Fire/EMS, Law Enforcement, and Paging for both mobile and portable radios. The latter being those worn on a person that provides critical communication to first responders when outside their vehicles.

The current radio system consists of five sites for Fire/EMS, three sites for law enforcement and seven sites for paging. When completed the system will consist of a total of sixteen sites for Fire/EMS, Paging and Law Enforcement, fifteen simulcast transmit and one receive only.



Site Selection

The County's site selection process includes working with the County's radio consultants to identify areas where coverage gaps exist. Once these areas are identified the County seeks to find the best location for a facility that considers coverage achieved, constructability particularly access, and land use and environmental constraints. Where possible, the County prefers to utilize publicly held lands or to co-locate at existing tower sites. Once basic site suitability from a communication and preliminary environmental scan standpoint has been determined, the County engages consultants to conduct a feasibility of the site before moving to the design/approval phase. These studies can include an environmental scan of the elements required for conformance with the National Environmental Policy Act (NEPA) and those elements required by the New York State Environmental Quality Review Act (SEQRA) that includes visual assessments. In summary, the considerations for site selection include radio coverage, microwave links, environmental and land use constraints, constructability, and site availability.

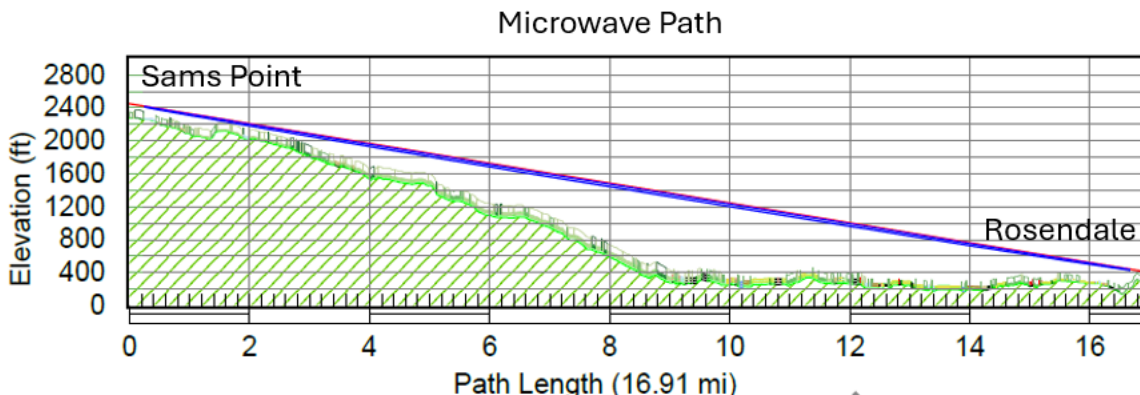


Cellular Accommodation

Cellular calls now make up over 95 % of the calls to the County's 911 (PSAP) Center making cellular coverage a critical first link for the dispatch of first responders. Accordingly, the County seeks to provide space on its towers for cellular facilities where practical and needed.

Use of Microwave Links

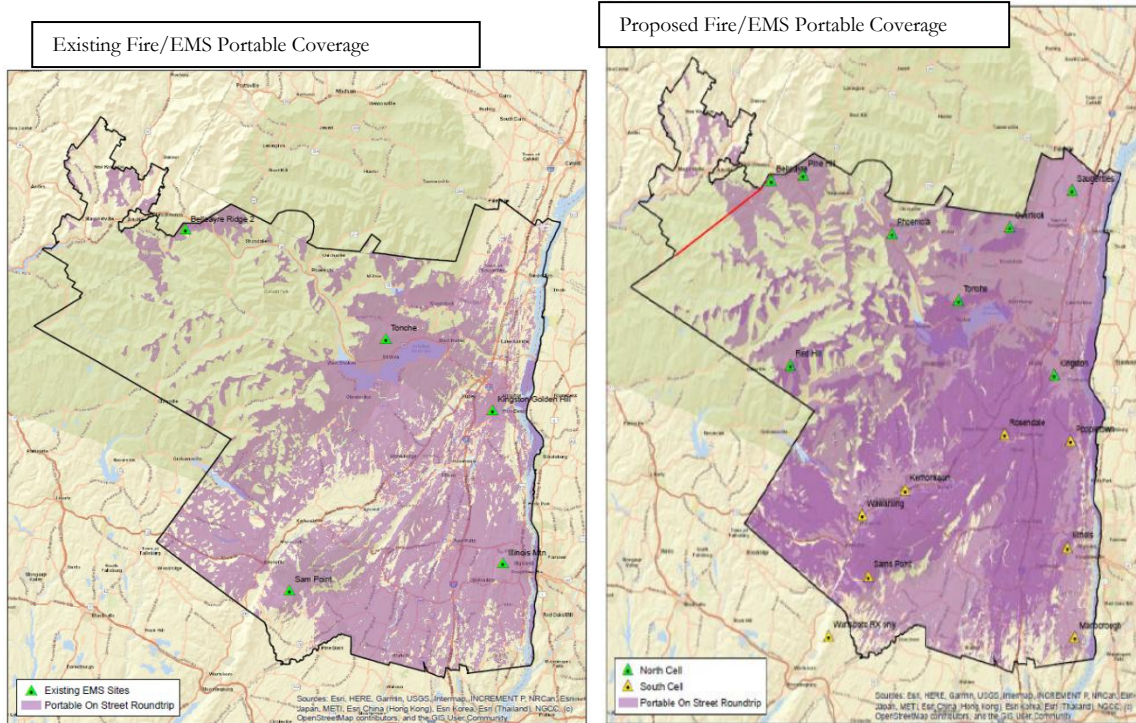
Another important factor in siting towers and determining the height needed is the ability to communicate between towers via microwave links. Ulster County's proposed radio towers, with few exceptions, are designed to be interconnected by microwave links. These links provide high-capacity, cost-effective backhaul capabilities with over 99.9 percent reliability. Microwave communications are expected to remain on-line long after fiber interconnections go down during many of the types of natural disaster that occur in the County. Fiber is also provided to each tower site as a backup.



Coverage Mapping

For Public Safety Communication, the industry standard for coverage design is to provide 95% reliability with a Delivered Audio Quality of 3.0 and this is the standard used in the Ulster County system. As noted above, portable radio coverage is a critical coverage component.

The figures below show the significant gaps for existing portable coverage for Fire/EMS in areas with high population densities south of Kingston and along the Hudson River and the anticipated coverage when system components are implemented.



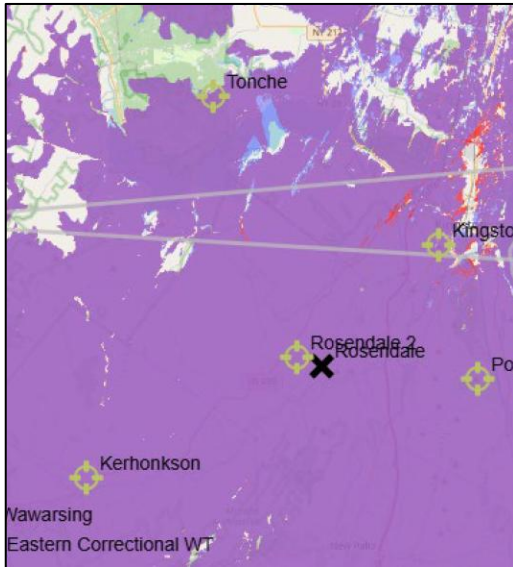
Coverage Rosendale Municipal Center vs. SUNY Ulster

The proposed public safety radio coverage comparison analysis of the Rosendale and SUNY Ulster sites for portable radio is attached as Exhibit 2. The analysis clearly shows that the Rosendale Municipal Center (Rosendale Site) meets the County needs. It also illustrates as seen in the figures below that the Rosendale overall coverage in areas of system gaps is better than the SUNY Ulster site for portable radio coverage. As seen above, the EMS/Fire portable radio coverage gaps exist in the higher density areas south of Kingston and along the Hudson River. The coverage obtained by the SUNY Ulster site is more extensive to the north and west of that site when compared to the Rosendale site. However, these areas of the County are adequately covered by existing tower locations at Golden Hill and Tonche Mountain. The Rosendale site location provides better critical infill coverage in the areas south of Kingston, and the Rosendale hamlet as shown in the comparison below. It also provides better overlapping coverage in the areas north along Hudson River Although these areas are adequately covered by other towers, the overlapping

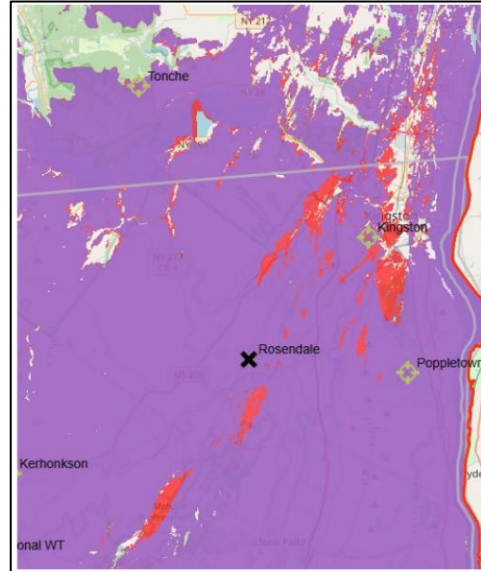
coverage in these more densely populated areas can provide important redundancy in communications should a tower go offline.

Portable Coverage Fire/EMS South Cell

SUNY Ulster (red)



Rosendale (red)



Tower Height

Tower height at both Rosendale and SUNY Ulster is driven by the number of antennas needed by the County, the height required for critical microwave links, overall coverage objectives and the space needed to accommodate cellular carriers. The tower loading chart (see Exhibit 3) clearly illustrates the needed tower height. The Exhibit shows public safety antennas on the tower beginning at 65 ft. – just above tree height and extending 170ft. Gaps in the antennal placement occurs at 90 ft. and 110 ft. to allow for the location of cellular carriers at these locations. The County’s microwave path study for the Rosendale site includes sending and receiving microwaves that will connect to Sams Point and/or Tonche Mountain. Minimum mounting height for the Sam’s Point connection is 110ft (see Exhibit 4).

Cellular Coverage Rosendale Municipal Center

As noted above, over 95% of calls to the 911 Center are now made from cell phones. The County preference is to include space for cellular carriers in the design of its radio towers where needed. Accordingly, the Rosendale site provides significant cellular coverage benefit as there is a lack of cell coverage in the general area of the site. Furthermore, both the County and the town were approached by a cell carrier (Verizon) with an interest in co-locating at the site (Exhibit 5). In addition, Verizon provided engineering necessity analysis that shows the gaps and service that will be closed by co-locating on the proposed tower (Exhibit 5).

Electromagnetic Field Study (EMF)

In response to public concerns about the EMF emitted by the proposed project the County engaged VComm Telecommunication Engineer to conduct a radio frequency (RF) study of the proposed project to ensure that the facility would meet the Federal Communication Commission’s (FCC) most current regulations. It should be recognized that the EMF is a general term for electromagnetic fields which include both high and low frequencies and can be caused by power lines and other wiring, whereas RF is made up of higher frequencies caused by wireless devices that use these frequencies transmit data and voice as is the case for the Rosendale facility. The FCC, in response to concerns about the environmental effects of RF emissions promulgated standards for exposure to RF emissions. The standards are divided into two main categories (i) those that apply for those working in and around areas where individuals can be exposed (controlled environment), and (ii) standards that apply for exposure due to proximity that is not work related (uncontrolled environment), the latter being much stricter. In addition, for common carriers the 1996 Telecommunication Act includes the following language regarding common carrier radio service.

“No state or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission’s regulations concerning such emissions.”

The Report attached as Exhibit 7, uses the FCC prediction methods and shows that the Rosendale Tower will be in compliance with all appropriate Federal regulations for RF emissions. Table A below shows the RF exposure as a percentage of the federal standards. The County also notes that the methodology used in the Report represents a worst-case scenario that assumes all transmitters are operating at the same time and at maximum power.

Table A

FCC OET-65 STANDARD	Controlled Environment	Uncontrolled Environment
Calculated Percentage of Maximum Emissions	1.809 %	9.047 %

List of Exhibits

Exhibit 1. NYSTEC Presentation to the Ulster County Legislature (Dec. 2024)

Exhibit 2: Public Safety Radio Coverage Analysis Rosendale vs. SUNY Ulster

Exhibit 3: Tower Loading Chart

Exhibit 4: Microwave Path Study Rosendale to Sams Point and Tonche

Exhibit 5: Verizon Letter of February 2025 Confirming Verizon's Interest in Collocating on the proposed tower

Exhibit 6: Verizon Engineering Necessity Case (Lucas Turnpike)

Exhibit 7: Ulster County's Radio Frequency Emission Study (the "RF Study") conducted by VComm