

# Solar Power GeoPlanner™

## Communications Tower Study

Mohawk Solar Project



Prepared on Behalf of  
Avangrid Renewables

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**COMSEARCH**  
A CommScope Company

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## 1. Introduction

This Communication Tower Study was performed for the Mohawk Solar Project in Montgomery County, New York to identify the tower structures as well as FCC-licensed communication antennas that exist in and within two miles of the project area. This information is useful in the planning stages of the solar energy facilities to identify setbacks and to prevent disruption to the services provided by the tenants on the towers. This data can be used in support of the solar energy facilities communications needs in addition to avoiding any potential impact to the current communications services provided in the region.

## 2. Summary of Results

The communication towers and antennas in the study area were derived from a variety of sources including the FCC's Antenna Structure Registration (ASR) database, Universal Licensing System (ULS), national and regional tower owner databases, and the local planning and zoning boards. The data<sup>1</sup> was imported into GIS software and the structures mapped in the project area of interest. Each tower location is identified with a unique ID number associated with detailed structure and contact information provided in a spreadsheet attachment.

Two tower structures and eight communication antennas were identified within two miles of the Mohawk Solar Project area using the data sources described in our methodology above. One of the structures found was registered with the FCC, which contains two of the eight communication antennas. The remaining antennas may be located on a variety of structure types such as guyed towers, monopoles, silos, rooftops or portable structures. The specific type of structure would normally need to be determined by an on-site visit.

Detailed information about the tower structures and communication antennas is provided in Table 1 and Table 2 including location coordinates, structure height above ground level, and owner-operator name<sup>2</sup>. Both communication towers were found to have inaccurate coordinates in the FCC license. The coordinates have been corrected using aerial imagery.

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<sup>1</sup> Comsearch makes no warranty as to the accuracy of the data included in this report beyond the date of the report. The data provided in this report is governed by Comsearch's data license notification and agreement located at [http://www.comsearch.com/files/data\\_license.pdf](http://www.comsearch.com/files/data_license.pdf).

<sup>2</sup> Please note that this report analyzes all known operators on the towers from data sources available to Comsearch. Unidentified operators may exist on the towers due to unlicensed or federal government systems, mobile phone operators with proprietary locations, erroneous data on the FCC license, and other factors beyond our control.

Tower ID	ASR Number	Owner	Structure Height AGL (m)	Latitude (NAD83)	Longitude (NAD83)
Tower001	1005659	WAMC	89.6	42.89657900	-74.59577400
Tower002	N/A	KGI	20.1	42.89687000	-74.59631400

Table 1: Summary of Tower Structures

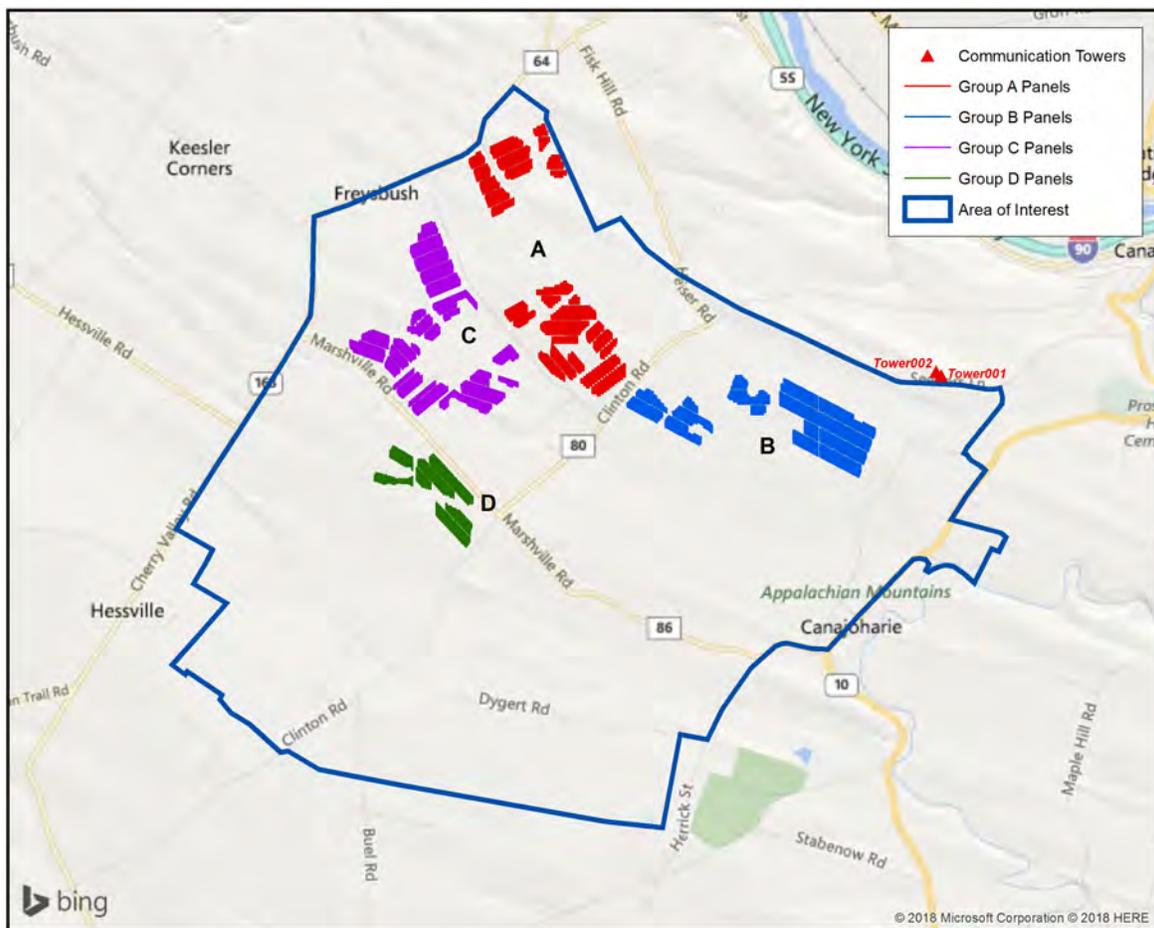


Figure 1: Towers within two miles of the Area of Interest

ID	Tower ID	Callsign	Service Type	Licensee	Antenna Height AGL (m)	Latitude (NAD83)	Longitude (NAD83)
1		WPPX317	Land Mobile	CANAJOHARIE, VILLAGE OF	15.0	42.89619444	-74.56736111
2	Tower001	WQNJ708	Microwave	Montgomery, County of	22.86/ 28.96	42.89657900	-74.59577400
3	Tower001	WCAN	FM	WAMC	88.0	42.89657900	-74.59577400
4		WPPX317	Land Mobile	CANAJOHARIE, VILLAGE OF	9.0	42.89925000	-74.57875000
5		WHV323	Land Mobile	New York State Canal Corporation	5.0	42.90786111	-74.57819444
6		WQWG497	Land Mobile	CSX TRANSPORTATION INC	4.3	42.90969444	-74.57944444
7		KTO69	Land Mobile	MONTGOMERY, COUNTY OF	12.0	42.91147222	-74.58208333
8		KUI750	Land Mobile	TOWN OF MINDEN	18.0	42.92813889	-74.64152778

Table 2: Summary of Communication Antennas

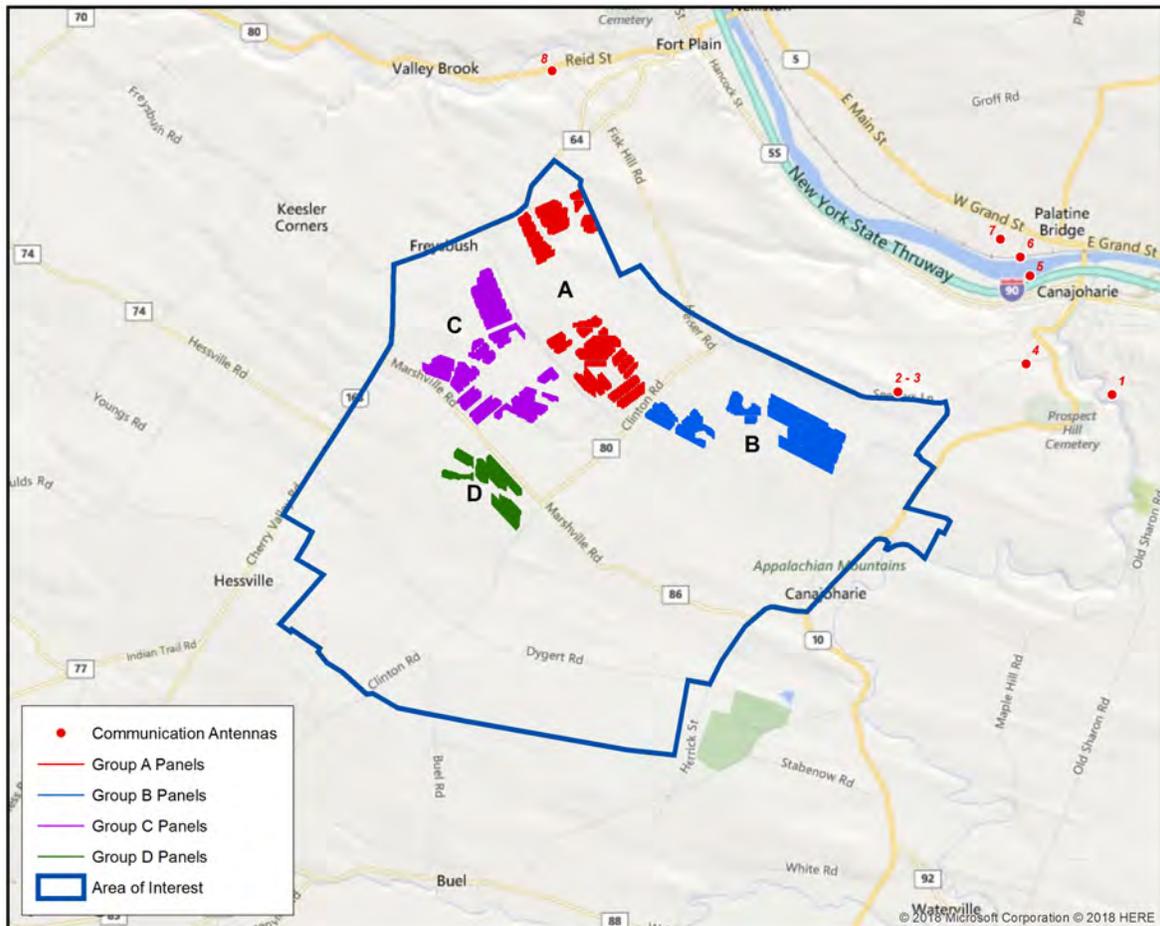


Figure 2: Communication Antennas within two miles of the Area of Interest

### **3. Discussion of Separation Distances**

The required separation distance based on the characteristics of the communication systems will vary depending on the type of communication antennas that are installed on the tower. For example, microwave systems would involve a line-of-sight analysis based on the Fresnel zone of any microwave beam path that intersect the project area. For AM and FM broadcast antennas, the minimum separation distance is based on minimizing any distortion to the existing coverage area which can extend up to 3 kilometers. For land mobile and mobile phone systems, setback distances are based on FCC interference emission limits from electrical or photovoltaic devices in the land mobile and mobile phone frequency bands.

### **4. Recommendation**

Our study identified two structures and eight communication antennas within two miles of the project area. They are used for microwave, FM, and land mobile services in the area. A detailed impact assessment study for each of these systems would determine if the corresponding separation distance is achieved.

### **5. Contact**

For questions or information regarding the Communication Tower Study, please contact:

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