

TRELINA SOLAR ENERGY CENTER

Case No. 19-F-0366

1001.26 Exhibit 26

Effect on Communications

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Exhibit 26: Effect on Communications

This Exhibit will track the requirements of proposed Stipulation 26, dated June 19, 2020, and therefore, the requirements of 16 New York Codes, Rules and Regulations (NYCRR) § 1001.26.

26(a) Existing Broadcast Communications Sources

The Applicant conducted an identification of all existing broadcast communications sources and a review of the Project's potential impact on multiple forms of communications technology within a two-mile radius of all Project Area boundaries, and the electric interconnection between the Project and the Point of Interconnection (POI). The Applicant reviewed Federal Communications Commission (FCC) license data and other appropriate databases to review TV, Radio, Cellular, Microwave radio communications as well as Doppler radar as described below. Additionally, the Applicant has consulted with the Seneca County Emergency Management Office, the Seneca County Sheriff Department, and the New York State Division of Homeland Security & Emergency Services to inform these agencies about the Project and assess effects and concerns regarding potential impacts to emergency services or emergency communications systems including the New York State Early Warning Weather Detection System.

The Project will lack tall structures and exposed moving parts. The photovoltaic arrays involved in this Project emit a weak electric and magnetic field (EMF) in the same low frequency as household electric appliances (MDER, 2015). The Applicant is not aware of any current research documenting any negative effects of solar arrays on communications technology. Based on these statements, the Project is not anticipated to interfere with any existing communications systems.

(1) Amplitude Modulation (AM) Radio

No records of Amplitude Modulation (AM) radio transmitter stations were identified within the two-mile radius of the Project. The closest transmitter station (Antenna Structure Registration 1007041), is located approximately 4.30 miles from the center of the Project. Three AM frequencies are broadcast from this site. The installation and operation of solar facilities is not anticipated to interfere with or cause adverse impacts to AM radio stations and will not be addressed further in this application.

(2) Frequency Modulation (FM) Radio

No records of Frequency Modulation (FM) radio stations were identified within the two-mile radius of the Project. The closest transmitter station (ASR 1007041) is located approximately 4.30

miles from the center of the Project. Six FM frequencies are broadcast from this site. The installation and operation of solar facilities is not anticipated to interfere with or cause adverse impacts to FM radio stations and will not be addressed further in this application.

(3) Television

Off-air television stations, which do not include satellite or cable receptors, broadcast signals from terrestrially based facilities directly to television receivers. Neither satellite TV nor cable TV reception is affected by the presence of solar panels. The Applicant examined coverage of off-air television stations in the area to identify any potentially impacted or degraded reception that would be associated with Project operation. No television transmitter stations were identified within a two-mile radius of the Project.

If residents within the Project Area experience adverse impacts to their television reception and/or service after installation of the proposed solar panels they can issue a formal complaint with the Applicant. The Applicant will consider any complaints received and seek resolution in accordance with the Complaint Resolution Plan (Appendix 12-3).

(4) Telephone

Wireless telephone services use several transmitters with overlapping coverages, so signal blockage as a result of the solar Project operation is not anticipated. Wireless operators are granted area-wide licenses from the FCC to deploy their cellular networks, which often include handsets with E911 capabilities.

The Applicant identified 55 wireless licenses within Seneca County. The provider and types of service (e.g., cellular, advanced wireless service, personal communications service [PCS], and wireless communications service [WCS]) are listed in Table 26-1.

Table 26-1. Wireless Telephone Service Licenses within Seneca County

#	Call Sign	Name	FCC Registration Number (FRN)	Radio Service
1	KNKN827	New Cingular Wireless PCS, LLC	3291192	CL
2	KNKQ423	Bell Atlantic Mobile Systems LLC	7845035	CL
3	KNKV212	Spok, Inc.	15608417	CN
4	KNKV214	Spok, Inc.	15608417	CN

Table 26-1. Wireless Telephone Service Licenses within Seneca County

#	Call Sign	Name	FCC Registration Number (FRN)	Radio Service
5	KNKV215	AMS Spectrum Holdings, LLC	19131390	CN
6	KNKV216	AMS Spectrum Holdings, LLC	19131390	CN
7	KNLB204	New Cingular Wireless PCS, LLC	3291192	ws
8	KNLB297	New Cingular Wireless PCS, LLC	3291192	WS
9	KNLB312	New Cingular Wireless PCS, LLC	3291192	WS
10	KNLF202	T-Mobile License LLC	1565449	CW
11	KNLF204	Sprint Spectrum Realty Company, LLC	8157679	CW
12	KNLG419	T-Mobile License LLC	1565449	CW
13	KNLG420	New Cingular Wireless PCS, LLC	3291192	CW
14	KNLG727	Spotlight Media Corporation	3762119	CW
15	L000010453	AMS Spectrum Holdings, LLC	19131390	CN
16	T060430006	Gamma Acquisition L.L.C	21004817	AD
17	T070272006	DBSD Corporation	26092031	AD
18	WPQL636	New Cingular Wireless PCS, LLC	3291192	WS
19	WPSL626	New Cingular Wireless PCS, LLC	3291192	CW
20	WPTB342	Cellco Partnership	3290673	CW
21	WPUH409	Space Data Spectrum Holdings, LLC	4983664	CN
22	WPUH410	Sensus Spectrum LLC	15015019	CN
23	WPUH510	AMS Spectrum Holdings, LLC	19131390	CN
24	WPXI881	Space Data Spectrum Holdings, LLC	4983664	CN
25	WPXI890	Space Data Spectrum Holdings, LLC	4983664	CN

Table 26-1. Wireless Telephone Service Licenses within Seneca County

#	Call Sign	Name	FCC Registration Number (FRN)	Radio Service
26	WPXI976	Space Data Spectrum Holdings, LLC	4983664	CN
27	WPXI977	Space Data Spectrum Holdings, LLC	4983664	CN
28	WQAF367	Space Data Spectrum Holdings, LLC	4983664	CN
29	WQBZ640	Space Data Spectrum Holdings, LLC	4983664	CN
30	WQEI575	Space Data Radio LLC	14655930	CN
31	WQEM398	Space Data Spectrum Holdings, LLC	4983664	CN
32	WQGA731	T-Mobile License LLC	1565449	AW
33	WQGA833	Cellco Partnership	3290673	AW
34	WQGA864	New Cingular Wireless PCS, LLC	3291192	AW
35	WQGA903	Cellco Partnership	3290673	AW
36	WQGB373	T-Mobile License LLC	1565449	AW
37	WQIQ488	Space Data Radio LLC	14655930	CN
38	WQIZ389	T-Mobile License LLC	1565449	WY
39	WQJU616	New Cingular Wireless PCS, LLC	3291192	WY
40	WQJY948	Manifest Wireless L.L.C.	17173121	WY
41	WQJY949	Manifest Wireless L.L.C.	17173121	WY
42	WQKM411	Sensus Spectrum LLC	15015019	CN
43	WQKS996	Nextel of New York, Inc.	3293537	CY
44	WQPZ969	T-Mobile License LLC	1565449	AW
45	WQRL212	Cellco Partnership	3290673	CW

Table 26-1. Wireless Telephone Service Licenses within Seneca County

#	Call Sign	Name	FCC Registration Number (FRN)	Radio Service
46	WQTX205	American H Block Wireless L.L.C.	23125057	АН
47	WQTX206	American H Block Wireless L.L.C.	23125057	АН
48	WQVN679	Cellco Partnership	3290673	AT
49	WQVN680	AT&T Wireless Services 3 LLC	23910920	AT
50	WQVN681	AT&T Wireless Services 3 LLC	23910920	AT
51	WQVN925	AT&T Wireless Services 3 LLC	23910920	AT
52	WQVN926	AT&T Wireless Services 3 LLC	23910920	AT
53	WQWQ824	SNR Wireless LicenseCo, LLC	23907074	AT
54	WQWQ825	SNR Wireless LicenseCo, LLC	23907074	AT
55	WRAB209	New Cingular Wireless PCS LLC	3291192	CW

AD – Mobile/Fixed Broadband: AWS-4 (2000-2020 MHz and 2180-2200 MHz)

The Project will lack tall structures, therefore the frequencies of operation for these wireless services should not be affected. Therefore, no change in coverage should occur as a result of the Project installation and operation.

(5) Microwave Radio Transmission

Microwave transmissions provide long-distance and local telephone services, backhaul for cellular and personal communications services, and interconnect data for mainframe computers and the internet. These transmissions also provide network controls for utilities and railroads across the county, as well as various video services. There are 23 licensed microwave radio paths

AH – Mobile/Fixed Broadband: AWS-H Block (1915-1920 MHz and 1995-2000 MHz)

AT – Mobile/Fixed Broadband: AWS-3 (1695-1710 MHz, 1755-1780 MHz, and 2155-2180 MHz)

AW – Mobile/Fixed Broadband: AWS (1710-1755 and 2110-2155 MHz)

CL - Mobile/Fixed Broadband: Cellular

CN - Paging and Messaging: PCS Narrowband

CW- Mobile/Fixed Broadband: PCS Broadband

CY- Mobile/Fixed Broadband: 1910-1915/1990-1995 MHz Bands, Market Area

WS – Mobile/Fixed Broadband: Wireless Communications Service WY– Mobile/Fixed Broadband: 700 MHz Lower Band (Blocks A, B, E)

within Seneca County. The provider and types of service are listed in Table 26-2. Two stations (WQMM608 and WQQW419) transmit from a tower 1.6 miles from the Project site. Given that microwave radio equipment uses equipment to filter out-of-band frequencies, no impacts to microwave communications are expected as a result of the Project.

Table 26-2. Microwave Radio Licenses within Seneca County

#	Call Sign	Name	FRN	Radio Service
1	WNTD742	County of Ontario	3397650	MW
2	WNTD743	County of Ontario	3397650	MW
3	WNTD746	County of Ontario	3397650	MW
4	WNTD747	County of Ontario	3397650	MW
5	WNTT712	Pfeiffer, Terry	4895025	MG
6	WPJE290	Auburn Broadcasting, Inc.	6292023	AS
7	WPJE608	New Cingular Wireless PCS, LLC	3291192	CF
8	WPNC551	New Cingular Wireless PCS, LLC	3291192	CF
9	WPNG771	Hobart And William Smith Colleges	3708310	AS
10	WPOV470	Pfeiffer, Terry L	4895025	MG
11	WPOV472	Pfeiffer, Terry L	4895025	MG
12	WPTY907	Seneca County	3419173	MW
13	WPTY909	Seneca County	3419173	MW
14	WQEP913	The Fingerlakes Radio Group, Inc.	10537561	AS
15	WQMM608	Clearwire Spectrum Holdings III LLC	18399998	CF
16	WQMM609	Clearwire Spectrum Holdings III LLC	18399998	CF
17	WQOW473	County of Ontario	3397650	MW
18	WQOW502	County of Ontario	3397650	MW
19	WQQW418	New Cingular Wireless PCS, LLC	3291192	CF

Table 26-2. Microwave Radio Licenses within Seneca County

#	Call Sign	Name	FRN	Radio Service
20	WQQW419	New Cingular Wireless PCS, LLC	3291192	CF
21	WQQW653	New Cingular Wireless PCS, LLC	3291192	CF
22	WQSR754	New Cingular Wireless PCS, LLC	3291192	CF
23	WQSR809	New Cingular Wireless PCS, LLC	3291192	CF
24	WQWF730	Seneca County	3419173	MW
25	WQWF738	Seneca County	3419173	MW
26	WQWF739	Seneca County	3419173	MW
27	WQWF740	Seneca County	3419173	MW
28	WQXD254	T-Mobile License LLC	1565449	CF
29	WQXD257	T-Mobile License LLC	1565449	CF
30	WQXE399	Sprint Spectrum L.P.	5072970	CF
31	WQXE403	Sprint Spectrum L.P.	5072970	CF
32	WQYW245	County of Ontario	3397650	MW
33	WQZW769	The Fingerlakes Radio Group, Inc.	10537561	AS
34	WRBW953	The Fingerlakes Radio Group, Inc.	10537561	AS

AS – Broadcast Support: Aural Studio Transmitter Link (STL)

(6) Emergency Services

Registered frequencies used for public safety that were licensed to operate within two miles of the Project location were identified. These licenses include: emergency medical services (EMS), emergency management, hospitals, public works, transportation, and other state, county, and municipal services. The Applicant identified 128 licenses designated for public safety, using the FCC's Universal Licensing System (Table 26-3).

CF - Fixed Wireless: Common Carrier Fixed Point to Point Microwave

MG – Fixed Wireless: Microwave Industrial/Business Pool

MW – Safety of Life: Microwave Public Safety Pool

First responder, industrial/business land mobile sites, area-wide public safety, and E911 communications equipment use filters to block out of band frequencies. Therefore, no significant adverse impacts are anticipated as a result of Project operation.

Table 26-3. Public Safety Licenses within 2 Miles of the Project Site

#	Call Sign	Name	FRN	Radio Service
1	KAY997	Wayne, County of	3419116	PW
2	KBF820	Hall Fire District	6189112	PW
3	KCI972	County of Ontario	3397650	PW
4	KDN428	Newark, Village of	3416302	PW
5	KEA510	Village of Newark Police Department	10195717	PW
6	KEB322	Wyoming, County of	3397593	PW
7	KED234	County of Ontario	3397650	PW
8	KEE250	Geneva, City of	3398013	PW
9	KEH862	East Bloomfield Holcomb Fire District	5125653	PW
10	KEJ210	Yates, County of	3397577	PW
11	KLG395	New York State Department of Transportation	5813506	PW
12	KLG399	New York State Department of Transportation	5813506	PW
13	KLG401	New York State Department of Transportation	5813506	PW
14	KLG404	New York State Department of Transportation	5813506	PW
15	KLK732	New York, State of	5813506	PW
16	KLK733	New York State Department of Transportation	5813506	PW
17	KLK734	New York State Department of Transportation	5813506	PW

Table 26-3. Public Safety Licenses within 2 Miles of the Project Site

#	Call Sign	Name	FRN	Radio Service
18	KNBU291	Seneca County	3419173	PW
19	KNCE438	Onondaga, County of	4009734	PW
20	KNCJ436	Geneva, Town of	8303257	PW
21	KNDD836	F.F. Thompson Memorial Hospital	3295813	PW
22	KNEP998	New York, State of	5813506	PW
23	KNET265	First Student Inc.	1738046	PW
24	KNFF495	National Ski Patrol System Inc.	4254397	PW
25	KNFP342	Cayuga County 911 Communications	3419504	PW
26	KNGL594	New York State Office of Parks, Recreation	10969756	PW
27	KNID319	RadioMax Communications, Inc.	26986232	YG
28	KNIS940	Seneca County	3419173	PW
29	KNJM272	Hector, Town of	3418233	PW
30	KNNI701	Yates, County of	3397577	PW
31	KQM645	New York State Office of Parks, Recreation	10969756	PW
32	KRX386	New York State Thruway Authority	4129540	PW
33	KTK528	State Of New York Division Of State Police	3438595	PW
34	KTZ226	Robert Packer Hospital	3220803	PW
35	KUZ700	New York State Office of Parks, Recreation	10969756	PW
36	KYW987	Ontario, County Of	5084603	PW
37	KZJ937	Clifton Springs Hospital & Clinic	3412038	PW
38	WNDD440	Yates, County Of	3397577	PW

Table 26-3. Public Safety Licenses within 2 Miles of the Project Site

#	Call Sign	Name	FRN	Radio Service
39	WNDM932	Union Springs School Dist	1734854	PW
40	WNDS871	T&K Communications Sys Inc.	3408317	YG
41	WNHU597	Lyons, Village Of	5052188	PW
42	WNIF477	Walworth, Town Of	3417235	PW
43	WNIT844	Victor Farmington Volunteer Ambulance Corps	3405511	PW
44	WNIX716	National Ski Patrol System Inc.	4254397	PW
45	WNJE469	South Seneca Central School	3411568	PW
46	WNKK969	Pfeiffer, Terry	3589173	YG
47	WNLQ509	T&K Communications Inc.	3408317	YG
48	WNME920	Steuben County	4474540	PW
49	WNQJ609	Rochester, City of	3397890	PW
50	WNRS378	Auburn Community Hospital	4127692	PW
51	WNVB436	Clyde, Village of	4125894	PW
52	WNVL828	Schroeppel, Town of	4485769	PW
53	WNVM408	Williamson, Town of	3417136	PW
54	WNXI413	Geneva, City of	3398013	PW
55	WNZU342	South Macedon Fire Dept	28354751	PW
56	WPBI241	Town of Aurelius Fire District	21228879	PW
57	WPBR620	Union Springs, Village of	3415932	PW
58	WPBS853	Cayuga, Village of	8546103	PW
59	WPDD891	New York State Department of Environmental	3438579	PW
60	WPDP828	Ovid, Village of	3416229	PW

Table 26-3. Public Safety Licenses within 2 Miles of the Project Site

#	Call Sign	Name	FRN	Radio Service
61	WPLS893	Scipio Venice Ledyard Fire District	7840846	PW
62	WPLX269	County of Ontario	3397650	PW
63	WPMF827	Fleming, Town of	4485793	PW
64	WPMN810	Pfeiffer, Terry L.	3589173	YG
65	WPOY208	Pfeiffer, Terry L.	3589173	YG
66	WPOY517	Pfeiffer, Terry L.	3589173	YG
67	WPPC812	Pfeiffer, Terry L.	5813845	YG
68	WPPD721	Pfeiffer, Terry L.	3589173	YG
69	WPPE748	Pfeiffer, Terry L.	3589173	YG
70	WPPF203	Pfeiffer, Terry L.	3589173	YG
71	WPPF269	Lyons, Village of	11296258	PW
72	WPQA607	Seneca County	3419173	PW
73	WPRG478	Pfeiffer, Terry L.	3589173	YG
74	WPRU503	Saia Communications Inc.	5007141	YG
75	WPSH658	Pfeiffer Group Inc.	4477782	YG
76	WPWB814	Cayuga County 911 Communications	3419504	PW
77	WPYQ625	Shortsville Village of	8904195	PW
78	WPYR333	Canandaigua, City of	3392164	YW
79	WPYT876	New York State Canal Corporation	25826108	PW
80	WPZP819	New York State Department of Corrections	8398745	PW
81	WPZV693	New York State Department of Corrections	8398745	PW
82	WQAC861	Seneca County	3419173	PW

Table 26-3. Public Safety Licenses within 2 Miles of the Project Site

#	Call Sign	Name	FRN	Radio Service
83	WQAT421	Mobiletech Communications Corp.	5123914	YG
84	WQAV343	New York State Thruway Authority	4129540	PW
85	WQBA526	Chemung, County of	22014732	PW
86	WQBN608	Ontario, County of	5084603	PW
87	WQCN681	Clifton Springs, Village of	12805073	PW
88	WQCN889	Ontario, County of	5084603	PW
89	WQEQ291	Ontario, County of	14360895	PW
90	WQER995	New York State Electric & Gas Corporation	4127932	YG
91	WQFG485	New York State Thruway Authority	4129540	PW
92	WQFI345	Ontario, County of	5084603	PW
93	WQGM613	Mobiletech Communications Corp.	5123914	YG
94	WQGN562	Mobiletech Communications Corp.	5123914	YG
95	WQHE663	Owasco Fire Dept	16348807	PW
96	WQJB307	Clifton Springs, Village of	17801309	PW
97	WQJE914	Seneca County	3419173	PW
98	WQJW332	Weedsport Central School District	16826836	PW
99	WQKR230	Saia Communications Inc.	5007141	YG
100	WQKX202	Varick Fire Department	28872760	PW
101	WQLU267	Cayuga County 911 Communications	3419504	YW
102	WQNT442	Mobiletech Communications	5123914	YG
103	WQNT851	Cayuga County 911 Communications	3419504	PW
104	WQOZ650	Waterloo Fire Department	19069046	PW
105	WQPB803	White Springs Fire Association	20870572	PW

Table 26-3. Public Safety Licenses within 2 Miles of the Project Site

#	Call Sign	Name	FRN	Radio Service
106	WQPD751	Phelps Fire Department	20848867	PW
107	WQPN316	County of Ontario	3397650	PW
108	WQQC400	Newark Arcadia Volunteer Ambulance Inc.	3406733	PW
109	WQRI922	County of Ontario	3397650	PW
110	WQRR663	Geneva City DPW	22712640	PW
111	WQSC260	Finger Lakes Racing Association	3409901	YG
112	WQSH671	Oaks Corners Volunteer Fire Company Inc.	16696874	PW
113	WQSW248	Mobiletech Communications	5123914	YG
114	WQTV565	Mobiletech Communications	5123914	YG
115	WQTZ671	Butler, Town of NY	23335219	PW
116	WQUI472	Mobiletech Communications	5123914	YG
117	WQVK598	Seneca County	3419173	PW
118	WQVL649	Waterloo, Village of	13583661	PW
119	WQVZ523	Town of Sodus Highway Dept.	7607922	PW
120	WQWE902	Seneca County	3419173	PW
121	WQXG253	Mobiletech Communications	5123914	YG
122	WQYK722	Mobiletech Communications	5123914	YG
123	WQYK725	Mobiletech Communications	5123914	YG
124	WQZB969	Mobiletech Communications	5123914	YG
125	WRDG853	Mobiletech Communications	5123914	YG
126	WZT987	New York State Department of Transportation	5813506	PW

Table 26-3. Public Safety Licenses within 2 Miles of the Project Site

#	Call Sign	Name	FRN	Radio Service
127	WZU299	Canandaigua City School District	5119201	PW
128	WZY288	Owego, Village of	3416203	PW

PW – Safety of Life: Public Safety Pool, Conventional

YG - Land Mobile Radio: Industrial/Business Pool, Trunked

YW - Safety of Life: Public Safety Pool, Trunked

Solar arrays should comply with the recommended conservative setback criteria for the FCC interference emissions in the land mobile bands. This distance, approximately 254 feet, is based on FCC inferences emissions from electrical devices in the land mobile frequency bands. The nearest land mobile-fixed base station is located 3.2 miles from the nearest proposed panel location.

There are no anticipated adverse impacts to emergency services communications as a result of installation of solar equipment. The Applicant consulted with the Seneca County Emergency Management Department to address any concerns related to communications, and none have been identified.

(7) Municipal/School District Services

The Applicant identified all municipal and school district communications sources within the vicinity of the Project. There are 21 site-based educational broadcast licenses issued within Seneca County, however no transmitter stations are located within two miles of the Project area. A full listing of sources is identified in Table 26-4.

Typically, mobile sites, broadcast, and area-wide public safety communications, including both municipal and school communications, are unaffected by the presence of solar arrays. No adverse impacts to these services are anticipated as a result of the Project operation.

Table 26-4. Educational Broadband Service Licenses within Seneca County

#	Call Sign	Name	FRN	Radio Service
1	L000000273	Clearwire Spectrum Holdings LLC	13892427	ED
2	L000008887	Krisar, Inc.	5014410	ED
3	L000008888	Krisar, Inc.	5014410	ED

Table 26-4. Educational Broadband Service Licenses within Seneca County

#	Call Sign	Name	FRN	Radio Service
4	L000008889	Krisar, Inc.	5014410	ED
5	L000015077	Clearwire Spectrum Holdings III, LLC	18399998	ED
6	L000020090	Clearwire Spectrum Holdings III, LLC	18399998	ED
7	L000020092	Clearwire Spectrum Holdings III, LLC	18399998	ED
8	L000039957	TDI Acquisition Sub, LLC	17806084	ED
9	L000040113	TDI Acquisition Sub, LLC	17806084	ED
10	L000041206	TDI Acquisition Sub, LLC	17806084	ED
11	WLX536 Lease	The Learning Paradigm, Inc.	6842280	ED
12	WLX543 Lease	National Conference on Citizenship	6106371	ED
13	WLX613 Lease	Rockne Educational Television, Inc.	6644009	ED
14	WLX682 Lease	Hispanic Information and Telecommunications Network	6620348	ED
15	WLX753 Lease	Hispanic Information and Telecommunications Network	6620348	ED
16	WLX840 Lease	Rockne Educational Television, Inc.	6644009	ED
17	WLX870 Lease	The Northern Arizona University Foundation	5024237	ED
18	WLX929 Lease	The Learning Paradigm, Inc.	6842280	ED
19	WNC472 Lease	Universal Education Foundation, Inc.	6240014	ED
20	WNC919 Lease	The Northern Arizona University Foundation	5024237	ED

ED - Mobile/Fixed Broadband: Educational Broadband Service

(8) Public Utility Services

The Applicant has identified the following public utilities with facilities located with a two-mile radius of the Project Area:

- Spectrum
- ViaSat, Inc.
- Hughes Network Systems, LLC
- Nysys Wireless LLC
- Verizon Communications Inc.
- VSAT Systems, LLC

Impacts to any of the above listed public utilities are not anticipated as a result of the Project. Prior to the commencement of construction, the Applicant and/or the Engineering, Procurement, and Construction (EPC) contractor will contact Dig Safely New York and request a mark out of all existing utilities. Dig Safely New York is a one-call center that facilities the coordination of construction contractors and underground utility operators.

(9) Doppler/Weather Radar

Doppler weather radar, or next-generation radar (NEXRAD), are operated by the National Weather Service. This radar allows for the generation of meteorological and hydrological short-term forecasts based on algorithms with inputs of detected precipitation, winds, temperature, and humidity.

The closest NEXRAD (KBGM) is located approximately 68 miles from the proposed installation of photovoltaic (PV) panels. The Applicant identified two others, KTYX and KBUF, which are located approximately 86 miles and 90 miles from the nearest PV panel, respectively (Climate Viewer Maps, 2020). Based on the United States Geological Survey (USGS) terrain elevation of the area, the installation of the PV panels will not negatively affect the radiation pattern and/or block the radio frequency (RF) signals of any of these NEXRADs.

(10) Air Traffic Control

The closest air traffic control center is located approximately 39 miles northwest of the Project at the Greater Rochester International Airport. The airport nearest the Project site is the Finger Lakes Regional Airport at approximately 8 miles to the east and does not have air traffic control. The Federal Aviation Administration (FAA) is responsible for air traffic control. Air traffic control is not anticipated to be affected by the construction and operation of the Project.

(11) Armed Forces

The nearest armed forces facilities are a US Air Force Recruiting Office and a NY Army National Guard Military Base, both located in Geneva, NY, approximately 3.3 miles and 1.8 miles from the

Project Site, respectively. The Applicant sent notification of the Project to the National Telecommunications Information Administration on June 10, 2020. No response has yet been received regarding potential impacts the Project may have on federal communications services. No impacts are expected to occur as a result of the Project.

(12) Global Positioning Systems (GPS)

The Applicant examined GPS antennas registered with the National Oceanic and Atmospheric Administration (NOAA) Continuously Operating Reference Station (CORS) database to determine if a radio line-of-sight (RLOS) existed with the Project. The closest GPS ground facilities to the proposed solar energy Project are the Youngstown, NY and Hudson Falls, NY GPS antennas. Both of these locations are more than 100 miles from the Project site.

Due to the low EMFs emitted by solar facilities, and the distance between the Project and the closest antenna, the Project is not expected to cause interference to the operation of GPS antennas.

(13) Long Range Navigation (LORAN)

LORAN is a system developed during World War II. Radio signals were sent across long distances through radio towers to guide ships and aircraft. The United States Coast Guard, in accordance with the 2010 Department of Homeland Security Appropriations Act, terminated the transmission of all United States LORAN signals. Therefore, no further discussion of LORAN is provided in this Application, as there will be no impact.

(14) Amateur Radio Licenses Registered to Users

The Applicant searched the FCC's Universal Licensing System database for all amateur radio licenses (HA & HV service codes) registered to users within a two-mile radius of the Project. No licensed users were identified, and thus there are no anticipated impacts to amateur radio licenses registered users as part of the Project.

26(b) Existing Underground Cable and Fiber Optic Major Transmission Location Telecommunications Lines

The Applicant reviewed publicly available information to determine if major fiber optic lines are located within a two-mile radius of the Project. Based on information obtained from https://www.shovelready.com/maproom.asp, no major fiber optic telecommunications facilities were identified within two miles of the Project or POI. Furthermore, the Applicant and/or EPC

Contractor will submit a request for information to Dig Safely New York prior to the commencement of construction activities to verify the location of all buried utilities within the Project Area. The safety of on-site personnel and the prevention of damages to existing/operating utilities is a top priority of the Applicant. Using the information compiled on current fiber optic and/or underground cables, the Applicant will avoid interference or minimize interference where avoidance is not possible through the use of directional boring instead or trenching, relocation of Project components (i.e. relocating a collection line to avoid interference), and crossing of existing utilities at 90-degree angles, as applicable.

26(c) Electric Interconnection Effects

The Applicant has reviewed the Project and has determined that there will be no adverse impacts to communications systems identified in sections (a) and (b) above. The Applicant reviewed FCC license data and other appropriate databases to review TV, Radio, Cellular, or Microwave communications as well as Doppler radar and NEXRAD.

(1) Structures to Interfere with Broadcast Patterns

Due to the low profile of the Project Components, it has been determined that there are no structures that will create major interference with broadcast patterns.

(2) Structures to Block Necessary Lines-of-Sight

The average height of the solar arrays will not exceed fifteen feet. As a result, it was determined that this Project will not increase signal attenuation for microwave radio signal transmission.

(3) Physical Disturbance by Construction Activities

Prior to construction, the Applicant will submit a "design ticket" to Dig Safely New York, which will initiate a process in which utilities provide relevant mapping to the Applicant. The Project will avoid any impacts to underground cables or fiber optic lines. Using the information compiled on current fiber optic and/or underground cables, the Applicant will avoid interference or minimize interference where avoidance is not possible.

(4) Adverse Impacts to Co-Located Lines due to Unintended Bonding

The Applicant has no intention of co-locating any buried lines related to the Interconnection or Transmission Facilities. This section does not apply.

(5) Other Interference Potential

Based on the Applicant's analysis there is not expected to be any adverse interference to communications systems as a result of the Project.

26(d) Adverse Effects on Communications Systems

Due to the low profile of the Project Components, it has been determined that the design configuration will not adversely affect the communications systems identified by the Applicant in this Exhibit

26(e) Plans to Mitigate Impacts on Existing Communications Sources

The Project is not expected to adversely impact the communications systems identified by the Applicant in this Exhibit. In the event that there is a significant adverse effect to communications systems post-construction, this will be resolved through the complaint resolution process which: can be found in all document repositories; can be provided upon request; will be online; and is located in Appendix 12-3 of this Application. After proper analysis, measures will be taken to resolve the issues presented.

26(f) Wind Power Facilities Interference with Radar or Instrument Systems Used for Air Traffic Control, Guidance, Weather, or Military Operations

There are no wind power facilities proposed as part of the Project, therefore this section is not applicable to this Project.

References

- Climate Viewer Maps. 2019. http://climateviewer.org/history-and-science/atmospheric-sensors-and-emf-sites/maps/nexrad-doppler-radar-stations/. Accessed June 2020.
- Federal Communications Commission (FCC). May 2019. *Broadcast Station Search*. https://www.fcc.gov/media/radio/fm-query. Accessed March 2020.
- FCC. 2019. Fixed Broadband Deployment. https://broadbandmap.fcc.gov/#/. Accessed March 2020.
- FCC. Universal Licensing System. https://wireless2.fcc.gov/UlsApp/UlsSearch/results.jsp. Accessed March 2020.
- Massachusetts Department of Energy Resources, et al. (MDER). 2015. *Clean Energy Results: Questions and Answers, Ground-Mounted Solar Photovoltaic Systems.* June 2015.

 "MDER Q&A," p. 10.
- United States Department of Commerce National Oceanic and Atmospheric Administration (NOAA). August 2019. Continuously Operating Reference Station (CORS) Map. https://www.ngs.noaa.gov/CORS Map/. Accessed March 2020.