



EXCELSIOR ENERGY CENTER

Case No. 19-F-0299

1001.26 Exhibit 26

Effect on Communications

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Exhibit 26: Effect on Communications

This Exhibit will track the requirements of Stipulation 26, dated July 6, 2020, and therefore, the requirements of 16 New York Codes, Rules and Regulations (NYCRR) § 1001.26.

26(a) Existing Broadcast Communication Sources

The Applicant conducted a review of the Project's potential impact on multiple forms of communications technology. 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 Byron and South Byron Fire Departments, Genesee County Emergency Management Office, the Genesee County Sheriff's Office, New York State Division of Homeland Security & Emergency Services, and the Genesee County Department of Planning to inform these agencies about the Project and assess effects and concerns regarding potential impacts to emergency services or emergency communications systems.

The Project consists of solar arrays and 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) stations were identified within a two-mile radius of the Project. The closest station, WBTA (1490 AM, operated out of Batavia, New York), is located 9.2 miles from the Town of Byron (Radio Locator, 2020). The 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) stations were identified within the two-mile radius of the Project. The closest station, WGCC (90.7 FM, operated out of Genesee Community College located in Batavia, New York) is located 5.4 miles from the Town of Byron (Radio Locator, 2020). As previously stated, 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 facilities. 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 (FCC(a), 2020). There were no television stations identified within a two-mile radius of the Project Area.

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 register 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 utilize several transmitters, with overlapping coverages, so signal blockage as a result of the 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 22 wireless licenses within Genesee County utilizing the FCC’s Universal Licensing System. The provider and types of service (e.g., cellular (CL), advanced wireless service (AW), personal communication services (CW), wireless communications service (WS)) are listed below in Table 26-1.

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

#	Call Sign	Name	FRN	Radio Service
1	KNKN865	New Cingular Wireless PCS, LLC	3291192	CL
2	KNKQ273	Bell Atlantic Mobile Systems LLC	7845035	CL
3	KNLB204	New Cingular Wireless PCS, LLC	3291192	WS
4	KNLB208	New Cingular Wireless PCS, LLC	3291192	WS
5	KNLB297	New Cingular Wireless PCS, LLC	3291192	WS
6	KNLB312	New Cingular Wireless PCS, LLC	3291192	WS

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

#	Call Sign	Name	FRN	Radio Service
7	KNLB313	New Cingular Wireless PCS, LLC	3291192	WS
8	KNLF270	New Cingular Wireless PCS, LLC	3291192	CW
9	KNLG529	New Cingular Wireless PCS, LLC	3291192	CW
10	KNLH270	Cellco Partnership	3290673	CW
11	L000040174	Bell Atlantic Mobile Systems, LLC	7845035	AW
12	WPOJ798	Sprint Spectrum Realty Company, LLC	8157679	CW
13	WPQL636	New Cingular Wireless PCS, LLC	3291192	WS
14	WQFA874	New Cingular Wireless PCS, LLC	3291192	CW
15	WQGA715	Cellco Partnership	3290673	AW
16	WQGA731	T-Mobile License LLC	1565449	AW
17	WQGA832	New Cingular Wireless PCS, LLC	3291192	AW
18	WQGA904	Cellco Partnership	3290673	AW
19	WQGB373	T-Mobile License LLC	1565449	AW
20	WQGD744	New Cingular Wireless PCS, LLC	3291192	AW
21	WQGD745	New Cingular Wireless PCS, LLC	3291192	AW
22	WQYH929	T-Mobile License LLC	1565449	CW

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

CL – Mobile/Fixed Broadband: Cellular

CW– Mobile/Fixed Broadband: PCS Broadband

WS – Mobile/Fixed Broadband: Wireless Communications Service

The Project will lack tall structures, therefore the frequencies of operation for these wireless services will 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 interconnects 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.

The Applicant identified 25 licensed microwave radio paths, including both microwave industrial/business pool (MG) licenses and microwave public safety pool (MW) licenses, within Genesee County using the FCC’s Universal Licensing System (Table 26-2). Given that microwave

radio equipment utilizes 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 Genesee County

#	Call Sign	Name	FRN	Radio Service
1	WNTJ686	Nioga Library System	5127238	MW
2	WNTL649	National Grid USA Service Company Inc.	5196530	MG
3	WNTP340	Genesee, County of	3397734	MW
4	WPQY932	Genesee, County of	3397734	MW
5	WPQY933	Genesee, County of	3397734	MW
6	WPZP740	New York State Thruway Authority	4129540	MW
7	WPZP741	New York State Thruway Authority	4129540	MW
8	WQID658	Genesee, County of	3397734	MW
9	WQID659	Genesee, County of	3397734	MW
10	WQIN996	Transwave Communication Systems, Inc.	12081873	MG
11	WQTQ439	County of Genesee	3397734	MW
12	WQTQ440	County of Genesee	3397734	MW
13	WQUW491	County of Genesee	3397734	MW
14	WQXM298	Genesee, County of	3397734	MW
15	WQXV405	Genesee, County of	3397734	MW
16	WQXV708	Genesee, County of	3397734	MW
17	WQYR461	County of Genesee	3397734	MW
18	WQYR463	Genesee, County of	3397734	MW
19	WQYR466	County of Genesee	3397734	MW
20	WQZD597	County of Genesee	3397734	MW
21	WQZD598	County of Genesee	3397734	MW
22	WRAK793	Genesee, County of	3397734	MW
23	WRAK796	Genesee, County of	3397734	MW
24	WRCS540	National Grid USA Service Company, Inc	5196530	MG
25	WRCS541	National Grid USA Service Company, Inc	5196530	MG

MG – Fixed Wireless: Microwave Industrial/Business Pool
 MW – Safety of Life: Microwave Public Safety Pool

(6) Emergency Services

Registered frequencies used for public safety were evaluated for Genesee county, including: police, fire, emergency medical services (EMS), emergency management, hospitals, public works, transportation and other state, county, and municipal agencies. The Applicant identified 35 conventional public safety pool (PW) licenses within Genesee County, utilizing the FCC's Universal Licensing System (see Table 26-3).

Table 26-3. Site-based Public Safety Licenses within Genesee County

#	Call Sign	Name	FRN	Radio Service
1	KCP921	Genesee, County of	3397734	PW
2	KEB213	Batavia, City of	3392149	PW
3	KEC962	Genesee, County of	3397734	PW
4	KEJ841	Genesee, County of	3397734	PW
5	KGV823	Fire Coordinator/Niagara County	3397676	PW
6	KLG402	New York, State of DOT	5813506	PW
7	KLP848	New York, State of	3438611	PW
8	KLS632	New York, State of	3438611	PW
9	KNAB446	State of New York Division of State Police	3438595	PW
10	KNAO341	Genesee, County of	3397734	PW
11	KQM643	New York State Office of Parks, Recreation, And Historic Preservation (OPRHP) - Genesee Region	10969756	PW
12	KQM645	New York State Office of Parks, Recreation, And Historic Preservation (OPRHP) - Genesee Region	10969756	PW
13	KTP417	Batavia Bus Service Inc	3752060	PW
14	KTR624	New York, State of	3438595	PW
15	KXB757	New York, State of	3438611	PW
16	KXD247	New York, State of	3438611	PW
17	KYW834	New York, State of	3438611	PW
18	WGM991	New York State Department of Environmental Conservation Office for Public Protection	3438579	PW
19	WNCB584	Village of Le Roy	6941504	PW
20	WNHI814	Le Roy Volunteer Ambulance Service Inc	3405446	PW
21	WNMZ581	Batavia, City of	3392149	PW
22	WPHM629	New York, State of	3438611	PW

Table 26-3. Site-based Public Safety Licenses within Genesee County

#	Call Sign	Name	FRN	Radio Service
23	WPVU905	State Of New York, Division of State Police	3438595	PW
24	WPZN807	New York State Thruway Authority	4129540	PW
25	WQDI233	Leroy, Village of	13356084	PW
26	WQDS441	New York, State of	3438611	PW
27	WQHG703	New York State Thruway Authority	4129540	PW
28	WQJ894	New York, State of	5133236	PW
29	WQOF800	Genesee, County of	3397734	PW
30	WQPJ640	Batavia, City of	3392149	PW
31	WQTH583	Genesee, County of	3397734	PW
32	WQYN840	Genesee, County of	3397734	PW
33	WRL629	NYS School for The Blind	12173563	PW
34	WRU916	New York, State of	5133236	PW
35	WXP485	New York, State of	5813506	PW

PW – Safety of Life: Public Safety Pool, Conventional

First responder, industrial/business land mobile sites, area-wide public safety, and E911 communications are typically unaffected by the presence of solar panels. Therefore, no adverse impacts are anticipated as a result of Project operation. This is due to the multiple transmitter locations utilized, similar to cellular services, and the ability for these signals to propagate through solar arrays.

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 interference emissions from electrical devices in the land mobile frequency bands. A search of the FCC Universal Licensing System did not show any licensed Call Signs in the Town of Byron, New York. It was therefore concluded there are no land mobile base stations within 254 feet of the Project.

There will be no adverse impact to emergency services communications coverage upon installation of the Project. The Applicant consulted with the Genesee County Emergency Management Office to address any concerns related to communications. No concerns have been expressed to date.

(7) Municipal/School District Services

The Applicant identified all municipal and school district communications sources within the vicinity of the Facility. There were numerous communications sources licensed to municipalities, including local towns, as indicated in Table 26-2 and Table 26-3, above. In addition to the municipal communication services listed above, the Applicant has identified 5 conventional industrial/business pool (IG) licenses for school district communications within the 2-mile Study Area, using the FCC's Universal Licensing System (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. School District Services Licenses within the 2-mile Study Area

#	Call Sign	Name	FRN	Radio Service
1	KAV426	Leroy Central School District	5119128	IG
2	KNEQ344	Byron Bergen Central School	7936594	IG
3	WQDV421	Byron-Bergen Central School District	7936594	IG
4	WQGP812	Elba Central School	9155896	IG
5	WQYP974	Elba Central School	9155896	IG

IG – Land Mobile Radio: Industrial/Business Pool, Conventional

(8) Public Utility Services

The Applicant has identified that the following public utilities/companies provide communication service within a 2-mile radius of the Project Area (In My Area, 2020):

- Spectrum
- Viasat
- HughesNet
- Verizon
- AT&T
- DIRECTV

In addition to the utilities/companies identified above, the Project Area has been identified as being located within the National Grid territory and Rochester Gas and Electric territory within New York State (New York State Office of Information Technology Services (NYS ITS), 2020).

Impacts to any of the above listed public utilities/companies are not anticipated as a result of the Project. Prior to the commencement 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 facilitates the coordination of construction contractors and underground utility operators. Their goal is to prevent damages to underground facilities and protect the public through education and quality communication with excavators, underground facility operators, and designers in an efficient, courteous, and cost-effective manner, while complying with governing regulations. The National Fuel Empire Pipeline has also been identified within the Project Area. Additional information regarding this public utility can be found in Exhibit 12 and Exhibit 18.

(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 Applicant identified one NEXRAD within the vicinity of the Project, KBUF, located at the National Weather Service (NWS) Forecast Office in Buffalo, New York (NOAA NWS, 2020). This NEXRAD is located approximately 40 miles west of the Project Area. The installation of the photovoltaic (PV) panels is not anticipated to negatively affect the radiation pattern or block RF signals due to the low profile of the panels.

(10) Air Traffic Control

One privately owned airstrip, Sackett Farm Airport, has been identified within the Project Area approximately 1-mile southeast of the center of the Town of Byron, however this airstrip will no longer be operational once construction and operation of the Project has begun. An additional four airports and two heliports have been identified within proximity to the Project Area. The identified airports include the Genesee County Airport located in Batavia, NY, approximately 5.5-miles southwest of the Project Area; the Stafford Airport, located in LeRoy, NY, approximately 5.5-miles southeast of the Project Area; the LeRoy Airport located in LeRoy, NY, approximately

9-miles southeast of the Project Area; and the Ely Air Park located in Bergen, NY, approximately 5.5-miles east of the Project Area (AirNav.com, 2020). Additionally, two heliports have been identified including the Gautieri Heliport located in approximately 8-miles southwest of the Project Area; and the NYS Trooper Heliport located in Batavia, NY, approximately 7-miles southwest of the Project Area (AirNav.com, 2020).

The FAA is the organization in the United States government responsible for air traffic control. Air traffic control will not to be affected by the construction and operation of the Project.

(11) *Armed Forces*

The Applicant does not anticipate any issues with any armed forces facilities, as no armed forces facilities have been identified within the Project Area or Study Area for the Project. The closest military base to the Project is the Niagara Falls Air Reserve Station approximately 50 miles west of the Project Area (MilitaryBases.US, 2020). It is not anticipated that the Project will interfere with any armed forces communications due to the low profile of the structures and the distance between the Project and the closest military base.

(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 NOAA CORS database identified one global navigation satellite system (GNSS) ground facility within close proximity to the Project. The GNSS ground facility identified is operated by the New York State Department of Transportation and is located approximately 6 miles southwest of the Project Area (NOAA CORS Map, 2019). Due to the low EMFs emitted by solar facilities and distance between the Project and the closest CORS system, the Project is not expected to cause interference to the operation of an CORS system.

(13) *Long Range Navigation (LORAN)*

Long Range Navigation (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 (FCC(b), 2020) for all active registered HA (Amateur) and HV (Vanity) Radio Licenses within a two-mile radius of the Project. No active licensed Amateur Radio user were identified. 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 Telecommunication Lines

Utility and fiber optic lines have been located and any underground cables or fiber optic lines found within the Project have been identified. Based on publicly available data from the Genesee County Department of Planning's county web mapping application, there is a telephone fiber optic cable which runs south along Byron Holley Road and east along Townline Road at the Townline Road and Bryon Holley Road intersection. This fiber optic cable is owned by the New York Telephone Company, a subsidiary of Verizon Communications. The Applicant and/or EPC Contractor will submit, prior to construction, a request for information with Dig Safely New York to receive all documented buried utilities within the Project Area. Safety of all 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 panels to avoid interference), and crossing of existing utilities at 90-degree angles.

The Project will avoid any impacts to underground cables or fiber optic lines. The Applicant has contacted Genesee County to confirm identification of any fiber potentially connecting radio towers. However, no response has been received as of the filing of this Application.

26(c) Electric Interconnection Effects

The Applicant conducted the review for the Project as well as the tap line and interconnection facilities and has determined that there will be no adverse impacts to communications technologies. The Applicant reviewed FCC license data and other appropriate databases to review all existing broadcast communication sources and existing telecommunications lines as described above.

(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. The Applicant has conducted surveys throughout the Project Area to determine that there is not expected to be any physical disturbance to communications systems infrastructure by construction activities.

(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 Communication 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 postconstruction, 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. If there is a potential for adverse effects based on the communication analyses, the Applicant will follow up with the Byron and South Byron Fire Departments, Genesee County Emergency Management Office, the Genesee County Sheriff's Office, New York State Division of Homeland Security & Emergency Services, and the Genesee County Department of Planning to determine the appropriate level of further study, monitoring, and mitigation, if necessary.

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 of Exhibit 26 is not applicable to this Project.

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