



## **EIGHT POINT WIND ENERGY CENTER**

**Case No. 16-F-0062**

**1001.26 Exhibit 26**

**Effect on Communications**

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## Exhibit 26: Effect on Communications

### 26(a) Existing Broadcast Communication Sources

The Applicant hired Comsearch to conduct review of the Project’s potential impact on multiple forms of communications technology. Comsearch reviewed Federal Communications Commission (FCC) license data and other appropriate databases to review TV, Radio, Cellular, Microwave communications as well as Doppler radar as described below. Additionally, the Applicant is consulting with the Steuben County Office of Emergency Services, the Steuben County Sheriff’s office 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.

#### *(1) Amplitude Modulation (AM) Radio*

Comsearch analyzed AM radio broadcast stations whose service could potentially be affected by the Project in Steuben County (see Appendix 26-1; Comsearch, 2017a). Four records for AM stations were identified within an 18.6-mile (30 kilometer) radius of the proposed Facility. These records consisted of two stations; WLSV, which broadcasts out of Wellsville, New York, to the west of the Project Area, and station WLEA, broadcasting from Hornell, New York, to the north. Both stations are licensed separately for daytime and nighttime operations, with a higher transmit power permitted during daytime hours. Comsearch has indicated that a station may experience interference if a station is within 1.9 miles (3 kilometers) of the wind turbines. The closest station was identified as occurring 10.5 miles (16.9 kilometers) from the proposed Facility, therefore; operation of the wind turbines is not anticipated to interfere with, or cause adverse impacts to, any of the identified stations.

#### *(2) Frequency Modulation (FM) Radio*

Comsearch conducted a search for FM stations within the 18.6-mile (30 kilometer) radius of the proposed Facility (see Appendix 26-1; Comsearch, 2017a). There were eighteen database records identified. All of these stations are currently licensed and operating, seven of which are translator stations that broadcast with limited range. See Table 26-1 below for an itemized list of the database records.

**Table 26-1. FM Stations within X Miles of the Proposed Facility**

| Call Sign | Frequency (MHz) | Nearest Turbine (Kilometers) | Nearest Turbine (Miles) |
|-----------|-----------------|------------------------------|-------------------------|
| WQRW      | 93.5            | 10.1                         | 6.28                    |
| WZKZ      | 101.9           | 10.1                         | 6.28                    |
| WALF      | 89.7            | 14.37                        | 8.93                    |
| WETD      | 90.7            | 15.27                        | 9.49                    |
| WSQA      | 88.7            | 16.09                        | 9.99                    |

| Call Sign | Frequency (MHz) | Nearest Turbine (Kilometers) | Nearest Turbine (Miles) |
|-----------|-----------------|------------------------------|-------------------------|
| W226AP    | 93.1            | 16.09                        | 9.99                    |
| W280EB    | 103.9           | 16.45                        | 10.22                   |
| W284BX    | 104.7           | 16.45                        | 10.22                   |
| W219CK    | 91.7            | 17.64                        | 10.96                   |
| WKPQ      | 105.3           | 17.77                        | 11.04                   |
| W294AV    | 106.7           | 20.68                        | 12.85                   |
| WMTT      | 94.7            | 23.6                         | 14.66                   |
| WMTT      | 94.7            | 23.85                        | 14.82                   |
| WJQZ      | 103.5           | 23.85                        | 14.82                   |
| W257AX    | 99.3            | 24.05                        | 14.94                   |
| WCKR      | 92.1            | 24.25                        | 15.07                   |
| W236CP    | 95.1            | 29.96                        | 18.62                   |
| WZHD      | 97.1            | 29.96                        | 18.62                   |

According to Comsearch the coverage of FM stations is generally not susceptible to interference caused by wind turbines. This is especially true when turbines are sited in the far field region of the radiating FM antenna in order to avoid the risk of distorting the antenna’s radiation pattern. The closest operational FM station to the Eight Point Wind Energy Center wind energy project, WQRW, is approximately 6.28 miles (10.1 kilometers) from the nearest turbine. At this distance, there should be adequate separation to avoid radiation pattern distortion.

### *(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 wind turbines. Comsearch examined coverage of off-air television stations in the area to identify any potentially impacted or degraded reception that would be associated with Facility operation (see Appendix 26-2; Comsearch, 2017b). There were thirty-nine television stations identified within a 62.14-mile (100 km) radius of the proposed Facility location, twenty-three are licensed and operational.

Twelve of the twenty-three television stations identified are Low-Power Television stations (LPTV) or translators which have limited ranges and serve local audiences. No adverse impact to these LPTV stations or translators is anticipated as a result of Facility operation.

Of the Full Power Television (FPTV) stations identified, six of them (WENY-TV, WSKA, WYDC, WETM-TV, WKBW-TV, and WIVB-TV) may experience some reception disruption, though modern digital TV receivers are likely able to mitigate the effects of signal scattering, if it should occur. When used in combination with a directional antenna, it becomes even less likely that signal scattering from wind turbines will cause interference to digital TV reception.

If residents within the Project Area experience adverse impacts to their television reception and/or service after installation of the proposed wind turbines 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 (see Appendix 12-2).

#### *(4) Telephone*

Wireless telephone services utilize several transmitters, with overlapping coverages, so signal blockage as a result of the wind turbine 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. Because mobile phone market boundaries differ between services, Comsearch disaggregated the carriers' licensed areas down to the county level (see Appendix 26-3; Comsearch, 2017c).

Comsearch identified eight wireless service providers within Steuben County. The provider and type of service (e.g., cellular, advanced wireless service [AWS], personal [PCS], wireless communication service [WCS]) are listed below:

- AT&T: AWS, Cellular, PCS, WCS, 700 MHz
- Blue Wireless: PCS
- DISH Network: AWS, 700 MHz
- Northstar Wireless: AWS
- SNR Wireless: AWS
- Sprint: PCS
- T-Mobile: AWS, PCS, 700 MHz
- Verizon: AWS, Cellular, PCS, 700 MHz

Frequencies of operation for these wireless services allow signals to propagate through wind turbines. Therefore, little, if any, change in coverage should occur as a result of the wind turbine installation and operation.

#### *(5) Microwave Transmission*

As described by Comsearch (see Appendix 26-4; Comsearch, 2017d) microwave transmissions provide long-distance and local telephone services, backhaul for cellular and personal communication 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. If improperly sited, these microwave bands could be impacted by the installation and operation of wind

turbine facilities. As such, Comsearch prepared a study evaluating the potential impact of the wind turbine Facility on the local non-federal government microwave systems in the vicinity of the proposed Facility.

Based on the Comsearch microwave study, there were five microwave paths that intersect the Facility (information on each path is provided in Table 26-2 below).

**Table 26-2. Microwave Paths within the Proposed Facility**

| Call Sign 1 | Call Sign 2 | Band (GHz)  | Licensee                     |
|-------------|-------------|-------------|------------------------------|
| KDT80       | WAT700      | Upper 6 GHz | CNG Transmission Corporation |
| KGM77       | KDT80       | Upper 6 GHz | CNG Transmission Corporation |
| KGM77P      | WAT701      | Upper 6 GHz | CNG Transmission Corporation |
| WQJM351     | WNEY546     | 11 GHz      | Potter County of (PA)        |
| WQSX436     | WQSX437     | 11 GHz      | Uniti Fiber PEG, LLC         |

Comsearch evaluated 36 turbines with a 137-meter blade diameter and tower height of 110 meters. As a result, there is no anticipated obstruction of the five microwave paths identified.

*(6) Emergency Services*

Registered frequencies for the following first responder entities were evaluated in the vicinity of the proposed Facility: police, fire, emergency medical services (EMS), emergency management, hospitals, public works, transportation and other state, county, and municipal agencies (see Appendix 26-5; Comsearch, 2017e). The FCC’s Universal Licensing System and the FCC’s Public Safety & Homeland Security Bureau provided the land mobile and emergency service data. Comsearch identified nine site-based licenses and 37 regional area-wide licenses designated for public safety utilization (see Tables 26-3 and 26-4, below).

**Table 26-3. Site-Based Licensed Public Safety Communication Sources**

| Licensee                         | Call Sign | Frequency (MHz)  | Antenna Height (meters) | Distance to Nearest Turbine (kilometers) |
|----------------------------------|-----------|------------------|-------------------------|------------------------------------------|
| Harrison Twp. Volunteer Fire Co. | WQIT804   | 150-174          | 30.4                    | 1.95                                     |
| Adams Technical Service          | WQNF701   | 150-174, 450-740 | 55.0                    | 1.97                                     |
| Potter, County of                | WQPP709   | 150-174          | 36.6                    | 1.97                                     |
| Schuylkill Mobile Fone           | WPKH407   | 150-174          | 58.0                    | 1.97                                     |

| Licensee                       | Call Sign | Frequency (MHz) | Antenna Height (meters) | Distance to Nearest Turbine (kilometers) |
|--------------------------------|-----------|-----------------|-------------------------|------------------------------------------|
| Potter, County of              | WPPW383   | 150-174         | 21.0                    | 1.97                                     |
| Adams, Brian K                 | WPRK471   | 150-174         | 46.0                    | 1.97                                     |
| Northern Tioga School District | WPSY605   | 150-174         | 49.0                    | 1.97                                     |
| Greenwood, Town of             | WPRY308   | 150-174         | 2.0                     | 2.43                                     |
| Columbia Gas Transmission      | KEA870    | 25-50           | 45.0                    | 2.94                                     |

**Table 26-4. Area-Wide Licensed Communication Sources**

| Licensee                                                                         | Area of Operation   | Frequency (MHz)                                            |
|----------------------------------------------------------------------------------|---------------------|------------------------------------------------------------|
| Addison, Village of                                                              | Countywide: Steuben | 150-174                                                    |
| American National Red Cross                                                      | Statewide: New York | 25-50, 450-470                                             |
| Bath, Village of                                                                 | Countywide: Steuben | 150-174                                                    |
| Bergen Volunteer Fire Department                                                 | Statewide: New York | 150-174                                                    |
| Canisteo, Village of                                                             | Countywide: Steuben | 25-50, 150-174                                             |
| Central Islip Hauppauge Volunteer Ambulance                                      | Statewide: New York | 150-174                                                    |
| Corning City Police Department                                                   | Countywide: Steuben | 150-174                                                    |
| Erie, County of                                                                  | Statewide: New York | 25-50, 150-174, 421-430, 450-470                           |
| Massasauga Search and Rescue, Inc.                                               | Statewide: New York | 150-174                                                    |
| National Ski Patrol System, Inc.                                                 | Statewide: New York | 150-174                                                    |
| New York, City of                                                                | Statewide: New York | 450-470, 800/900, 4940-4990                                |
| New York, State of                                                               | Statewide: New York | 0-10, 25-50, 150-174, 220-222, 450-470, 800/900, 4940-4990 |
| New York City Police Department                                                  | Statewide: New York | 150-174                                                    |
| New York State Dept. of Corrections and Community Supervision                    | Statewide: New York | 150-174, 450-470, 4940 4990                                |
| New York State Dept. of Environmental Conservation, Office for Public Protection | Statewide: New York | 25-50, 150-174                                             |
| New York State Dept. of Health, Bureau of Emergency Medical                      | Statewide: New York | 25-50, 150-174, 450-470                                    |



| Licensee                                                                   | Area of Operation   | Frequency (MHz)                                                 |
|----------------------------------------------------------------------------|---------------------|-----------------------------------------------------------------|
| Services                                                                   |                     |                                                                 |
| New York State Dept. of Transportation                                     | Statewide: New York | 0-10, 4940-4990                                                 |
| New York State Division of State Police                                    | Statewide: New York | 25-50, 150-174, 220-222, 450-470, 800/900, 2450-2500, 4940-4990 |
| New York State Office of Emergency Management                              | Statewide: New York | 25-50, 150-174                                                  |
| New York State Office of Parks, Recreation & Historic Preservation (OPRHP) | Statewide: New York | 450-470                                                         |
| New York State OPRHP - Albany Region                                       | Statewide: New York | 150-174                                                         |
| New York State OPRHP - Long Island Region                                  | Statewide: New York | 150-174                                                         |
| New York State OPRHP - Niagara Region                                      | Statewide: New York | 150-174                                                         |
| Niagara Frontier Search and Rescue                                         | Statewide: New York | 150-174                                                         |
| Northeast Mobile Search and Rescue, Inc.                                   | Statewide: New York | 150-174                                                         |
| Northeastern Forest Fire Protection Compact                                | Statewide: New York | 25-50, 150-174                                                  |
| Ossining, Village of                                                       | Statewide: New York | 25-50, 450-470                                                  |
| Painted Post, Village of                                                   | Countywide: Steuben | 150-174                                                         |
| Savona, Village of                                                         | Countywide: Steuben | 25-50                                                           |
| Steuben, County of                                                         | Countywide: Steuben | 25-50, 150-174, 450-470, 4940-4990                              |
| Steuben County Emergency Services                                          | Countywide: Steuben | 25-50                                                           |
| Triborough Bridge and Tunnel Authority                                     | Statewide: New York | 4940-4990                                                       |
| Urbana, Town of                                                            | Countywide: Steuben | 450-470                                                         |
| Wayland, Village of                                                        | Countywide: Steuben | 150-174                                                         |
| Wayne Fire District                                                        | Countywide: Steuben | 25-50                                                           |
| Western New York Search Dogs, Inc.                                         | Statewide: New York | 150-174                                                         |
| Woodbury, Town of                                                          | Statewide: New York | 4940-4990                                                       |

Comsearch has indicated that the first responder, industrial/business land mobile sites, area-wide public safety, and E-911 communications are typically unaffected by the presence of wind turbines. Therefore,

no significant adverse impacts are anticipated as a result of Facility operation. This is due to the multiple transmitter locations utilized, similar to cellular services, and the ability for these signals to propagate through wind turbines.

Wind turbines 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 1.21 miles (1.95 km) from the nearest proposed turbine location.

There will be no significant impact to emergency services communications coverage upon installation of the Project. In the event that a public safety entity believes its coverage has been compromised by the presence of the wind energy facility, there are many options to improve signal coverage to the area through optimization of a nearby base station or even adding a repeater site. Utility towers, meteorological towers or even the turbine towers within the wind project area can serve as the platform for a base station or repeater site. However, it is not anticipated that any emergency service communications will have compromised coverage. Project representatives have consulted with Steuben County Emergency Services to address any concerns related to communications. This consultation is constructive and collaborative to address any questions that may arise.

#### *(7) Municipal / School District Services*

Comsearch identified all municipal and school district communication sources within the vicinity of the Facility (see Appendix 26-5; Comsearch, 2017e). There was one site-based license issued to the Northern Tioga School District. There were numerous communication sources licensed to municipalities, including local Towns and Villages. A full listing of sources is identified in Tables 26-3 and 26-4, above.

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

#### *(8) Public Utility Services*

The Applicant has identified the following public utilities with a 2-mile radius of the Project Area:

- Frontier Communications
- Steuben Rural Electric Cooperative
- New York State Electric and Gas (NYSEG)
- National Fuel
- Verizon
- TransCanada (Columbia Gas)

In addition to identifying the local utilities, the Applicant has contracted with a local survey company to complete a boundary survey for the Project. As part of that survey, which is ongoing, the actual location of all utilities' facilities adjacent to the Project Facilities are being documented and the utility owners are being identified, including both underground and overhead utilities. Prior to construction, the Applicant

will contact any utility in the Project Area that may be impacted by the Project and work with those utilities to eliminate or limit any disruption to service.

### *(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. In certain infrequent circumstances, Doppler can span the same frequencies as wind turbines and operational wind turbines can adversely affect radar data quality when located in a NEXRAD line of sight (LOS).

Comsearch identified seven Doppler Weather Radar systems that are owned and operated by television stations and commercial interests in the vicinity of the Facility (see Appendix 26-6; Comsearch, 2017f). The closest site is located approximately 94 km (59.03 miles) from the proposed Facility and the effective terrain elevations would block LOS between the antennas of all seven radars and the Facility Site. Therefore, no impacts are anticipated.

### *(10) Air Traffic Control*

The closest air traffic control tower is located approximately 17 miles north of the proposed Facility at the Hornell Municipal Airport. Three additional airports were identified within proximity to the proposed Facility. These included: Wellsville Municipal Airport at approximately 13 miles to the west; Corning-Painted Post Airport at approximately 27 miles to the east; and Dansville Municipal Airport at approximately 30 miles to the north (AirNav.com, 2017). The FAA is responsible for air traffic control and for determinations on the petitions for objects to penetrate national airspace. Therefore, the Applicant has submitted the proposed Facility layout to the FAA for determination of whether or not this Facility will cause a hazard or will have no impact to the airspace under Title 49 of the United States Code, Section 44718. Based on feedback thus far from the FAA, there are not anticipated to be impacts to air traffic control. The Applicant anticipates receiving Determinations of No Hazard from the FAA in early 2018.

### *(11) Armed Forces*

The Applicant does not anticipate any issues with any armed forces facilities. The nearest armed forces facility is the Niagara Falls Air Reserve Station approximately 90 miles northwest of the proposed wind energy Facility. The Applicant sent written notification of the proposed Facility to the National Telecommunications and Information Administration (NTIA) on February 6, 2017 and to the Federal Aviation Administration (FAA) in March 2017. In response, NTIA provided plans for the proposed Facility to the federal agencies represented in the Interdepartment Radio Advisory Committee (IRAC), which includes the Department of Homeland Security, the United States Air Force, United States Army, United States Navy, United State Coast Guard, and the Department of Veteran Affairs. A response was received on April, 10 2017 indicating none of the agencies had communications-related issues with the turbine placement in this area (see Appendix 26-7).

Additionally, the Department of Defense (DoD) Siting Clearinghouse has a formal review process that applies to any wind project that requests Determinations of No Hazard from the FAA. The DoD

established the DoD Siting Clearinghouse in 2010 to provide a timely, transparent, and repeatable process that can evaluate potential impacts and explore mitigation options, while preserving the DoD mission of reviewing the compatibility of proposed wind, solar, transmission, and other projects with military activities. The formal review process begins with a project application submitted through the FAA's Obstruction Evaluation/Airport Airspace Analysis which is then automatically assigned to the DoD. The DoD then conducts their analysis and submits a single DoD position to the FAA as part of the review process. Based on information received on October 10, 2017, no concerns have been identified with the Project, except for the following request from the Air Force and the DOD Energy Siting Clearinghouse: Please advise proponent the structure will be located within the confines of a military training route and the Air Force requests utilization of Night Vision Goggle compatible lighting. The Applicant will utilize lighting that is compatible with night vision goggles.

### *(12) Global Positioning System*

Comsearch examined GPS antennas registered with the NOAA CORS database to determine if a radio line-of-sight (RLOS) existed with the Project. The closest GPS ground facilities to the proposed wind energy Facility are the Friendship NY., Coopers Plain NY. And Coudersport 2, PA. GPS antennas.

Comsearch conducted a line of sight analysis by creating a cross sectional elevation profile to the nearest turbines (see Appendix 26-8; Comsearch 2017g) and determined that there currently exists terrain blockage and the turbines will be sited outside of the service range of the antennas (approximately 10 miles). Therefore the Project is not expected to cause interference to the operation of the GPS antennae.

The NTIA has reviewed the proposed Facility and on April 10, 2017 expressed there were no concerns associated with the operation of the proposed wind energy Facility. The response letter is included in Appendix 26-7.

### *(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*

Comsearch identified all amateur radio licenses registered to users within a 2-mile radius of the Facility (see Appendix 26-9; Comsearch, 2017h). Information on each of these amateur radio stations is provided in Table 26-5, below.

**Table 26-5. Amateur Radio Licenses within 2-Miles of the Facility**

| Call Sign | Expiration Date | Operator Class |
|-----------|-----------------|----------------|
| KC2MGE    | 12/01/2023      | Technician     |
| N2WDS     | 08/31/2023      | General        |
| N2XPG     | 01/04/2024      | Technician     |
| KD2GJT    | 05/02/2024      | General        |

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

The Applicant has identified that there are existing fiber optic and/or underground cables located within the Project Area. Utility and fiber optic locates are currently being conducted and any underground cables or fiber optic lines found within 2 miles of the Project will be identified. This is being completed through the use of a surveying contractor in collaboration with local utilities, Dig Safely New York, and participating landowners of the Project. The Applicant and/or EPC Contractor will submit 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 collection line to avoid interference), and crossing of existing utilities at 90 degree angles.

### 26(c) Electric Interconnection Effects

Comsearch conducted the review for the transmission and interconnection facilities and has determined that there will be no major impacts to communication technologies. Comsearch reviewed Federal Communications Commission (FCC) license data and other appropriate databases to review TV, Radio, Cellular, Microwave communications as well as Doppler radar as described below.

#### *(1) Structures to Interfere with Broadcast Patterns*

After analyzing broadcast signals within the Project Area, it has been determined that there do not appear to be any structures that will create major interference with Broadcast Patterns.

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

Comsearch generated a model on microwave line-of-sight paths and the potential for signal degradation based on Three-Dimensional Fresnel Zone Analysis. It was determined that there will be no signal attenuation for microwave line-of-sight paths.

### *(3) Physical Disturbance by Construction Activities*

Project surveyors have consulted with local gas and utility companies as well as Dig Safe New York to locate any existing underground infrastructure. The Applicant has conducted surveys throughout the Project Area to determine that there is not expected to be any physical disturbance to communication 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 Comsearch analysis there is not expected to be any significant interference to communication systems as a result of the Project. Figure 26-1 shows communication towers within the Study Area and their associated beam paths in relation to the Project.

## 26(d) Adverse Effects on Communication Systems

As stated above, the Applicant does not expect any significant effect on communication systems due to the Project. Comsearch has conducted many studies to determine the impact, if any, on communication systems due to the Project. This extensive analysis in combination with surveys within the Project Area and the numerous consultations with New York State and Federal Agencies provides the Applicant confidence that no significant impacts will affect communications. The Applicant will continue to consult with the FAA and DoD to that there are no impacts due to the Project.

## 26(e) Plans to Mitigate Impacts on Existing Communication Sources

After consultations with the appropriate agencies and sufficient analyses have been conducted, the Applicant has used best design practices to mitigate potential impact risks prior to finalizing preliminary designs and plans for construction. This guarantees that all modeled impact risks have been mitigated in the engineering phase of the Project. Because these precautions have been taken, it is not expected for there to be significant impacts to communication systems.

After working with the Project engineering team, it was determined that minimal changes to the design of the transmission structures would eliminate the potential for adverse impacts to Communication Systems as a result of the Project.

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 and is located in Appendix 12-2 of this Application. After proper analysis, measures will be taken to resolve the issues presented.

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

Upon consultation with the NTIA and the federal agencies with the IRAC, the Applicant received a response on April 10, 2017 stating that there were no concerns regarding communications or radio frequency blockage. The Applicant is currently consulting with the Federal Aviation Administration (FAA) and the Department of Defense (DoD) to determine if there is an impact on FAA regulations and military operations respectively. The FAA and DoD are currently conducting analyses to determine the level, if any, of impact the Project has. This is a constant collaboration and will be addressed with the appropriate agencies when the analyses have been completed.

As is detailed in Exhibit 25(e) and 25(f), the Applicant is working with the FAA and the DoD in order to avoid or mitigate any interference with radar or instrument systems used for air traffic control, guidance, weather or military operations. Conversations with the FAA indicate that Project will not have any significant impacts and based on comments provided by the DoD, the Project is not expected to have any significant impacts to military operations or instrumentation and the Applicant has agreed to use lighting that is compatible with night vision goggles.

## References

Comsearch (2017a). *AM and FM Radio Report*. April 2017.

Comsearch (2017b). *Off-Air TV Analysis*. April 2017.

Comsearch (2017c). *Mobile Phone Carrier Report*. April 2017.

Comsearch (2017d). *Microwave Study*. April 2017.

Comsearch (2017e). *Land Mobile and Emergency Services Report*. April 2017.

Comsearch (2017f). *Doppler Weather Radar Study*. April 2017.

Comsearch (2017g). *GPS Study*. April 2017.

Comsearch (2017h). *Amateur Radio Report*. April 2017.