



## Baron Winds Project

Case No. 15-F-0122

1001.18 Exhibit 18

Safety and Security

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## EXHIBIT 18 SAFETY AND SECURITY

Safety and security are critical components of the construction and operation of any major electrical generation facility. However, overall safety and security risks associated with the Facility are anticipated to be minimal. To ensure the safety of construction and operations personnel, as well as the security of the Facility, the Applicant has developed, and will implement plans for site security, worker safety, and emergency action, which are described below and are based on the Applicant's experience in addressing safety and security issues at other wind projects. The Applicant has also coordinated with the County emergency department, local first responders, and the New York State Division of Homeland Security and Emergency Services to ensure appropriate actions are taken in the event of an emergency.

### (a) Preliminary Plans for Site Security During Facility Construction

To reduce safety and security concerns during construction, public access to the Facility will be limited. The contractor will be required to provide a final site security plan for construction, which will be developed by the contractor selected to lead the construction of the Facility (i.e., the Balance of Plant [BOP] contractor) post certification. Preparation of the site security plan will begin immediately following selection of the BOP contractor, and the final plan will be provided to the Siting Board upon completion. However, the Applicant has prepared a Preliminary Health and Safety Plan (Appendix V of this Application), which includes measures to be implemented during Facility construction to ensure security. In addition, the Preliminary Quality Assurance/Quality Control (QA/QC) Plan addresses construction-related site security measures (Appendix S of this Application).

#### (1) Access Controls

Typical safety and security plans call for restricting public access to the site during construction by locked gates and signage. With respect to the Facility, the general public will not be allowed on the site during construction. After hours, vehicular access to such sites will be blocked by parked equipment or temporary fencing. Temporary construction fencing or other visible barriers will be placed around excavations that remain open during off hours.

To prevent members of the public or unauthorized personnel from entering the Facility, each work area will be clearly identified using signs and/or restricted via physical barriers. Additionally, a log of all personnel visiting, entering, or working on the site will be maintained by the Plant Operator (PO). Visitor access will require PO or Site Supervisor (SS) approval. Following approval, visitors will be required to attend site orientation/safety training provided by the PO or SS.

## (2) Electronic Security and Surveillance Facilities

Trespassing is generally not an issue during construction of wind power projects. Therefore, electronic security and surveillance is not currently proposed for the Facility. However, if problems arise, video cameras or other surveillance technology may be set up to monitor activity during construction. In addition, the Applicant has prepared a Preliminary Emergency Action Plan (EAP), which is included as Appendix W to this Application. The Preliminary EAP provides a "Civil Disturbance Response Plan" that can also be applied to trespassing. The following summarizes the steps outlined in this plan:

1. Any site personnel noting a possible civil disturbance, including trespassing, should contact a manager immediately.
2. If necessary, all entrances and exits will be secured.
3. If unauthorized intruders gain access to the Facility Site, employees have been instructed to refrain from any contact with the intruders.
4. All site personnel should remain in the area, stay calm and follow instructions from management.
5. If intruders gain access onto the Facility Site and damage property, site personnel should not interfere. The personal safety of site personnel is more important than the protection of the Applicant's property.

## (3) Security Lighting

Security lighting activities associated with Facility construction will include lighting of the staging areas and areas immediately around the office trailers. Lighting will be directed downward where possible to minimize the effects of light pollution/trespass and will be minimized to the extent practical in order to reduce potential wildlife attraction. In addition, construction that takes place outside of daylight hours will include the lighting necessary to allow for safe construction activities while at the same time minimizing off-site light pollution/trespass to the maximum extent practicable. A detailed Facility Exterior Lighting Plan Compliance Filing will be submitted as a Compliance Filing for review and approval within 30 days of the commencement of construction. The Lighting Plan will address:

- Security lighting needs at wind turbine sites, collection substation and switchyard sites, O&M building site, and any exterior equipment storage yards;
- Plan and profile figures to demonstrate the lighting area needs and proposed lighting arrangement at the collection substation and switchyard sites, the O&M building site, any exterior equipment storage yards, and typical figure(s) for wind turbine sites;
- Lighting design that will provide safe working conditions at appropriate locations;
- Exterior lighting design that will avoid off-site lighting effects by:
  - using task lighting as appropriate to perform specific tasks; task lighting will be designed to be capable of manual or auto-shut off switch activation rather than motion detection;

- requiring permanent exterior lighting, other than turbine door safety lighting, to be full cutoff fixtures, with no drop-down optical elements, which can spread illumination and create glare.

#### (4) Setback Considerations

See Exhibit 6(a) for a detailed discussion of Facility setbacks. These setbacks, in association with the access controls discussed in Section (a)(1) above, should ensure adequate safety and security during construction of the Facility.

#### (b) Preliminary Plans for Site Security During Facility Operation

It is anticipated that the Applicant will own and operate the Facility, except for the existing point of interconnection (POI) substation, which will be owned and operated by NYSEG. Therefore, the Applicant will be responsible for site safety and security during operation of the Facility, excluding the POI substation. The Applicant has developed a Preliminary Site Security Plan for Facility Operations (Appendix X), which includes the following measures to be implemented during Facility operation.

##### (1) Access Controls

All access roads will be gated to restrict access to the general public. Gates must be kept locked except during turbine maintenance. Signs will be installed on gates warning the public not to trespass and of possible ice throw hazards. If unauthorized access becomes a reoccurring problem (i.e., multiple incidents a month) or gates are found to be damaged, the Applicant will assess whether to install intrusion detection devices at the entrance of Facility access roads. Subcontractors and visitors who fail to lock the access road gate may be banned from the Facility.

In addition, the collection substation will be fenced. Control buildings within the substation and the fence door will be kept locked unless authorized personnel are inside the substation. The access road entrance to the substation will be gated and kept locked in a similar manner to turbine access roads.

The O&M building will be locked at all times when Facility personnel are not inside. Similarly, wind turbine access doors will be closed and locked except when Facility personnel are inside the turbine. Signs will be posted at every wind turbine stating that it is a federal offense to damage a wind turbine and that no trespassing is allowed on the Facility.

## (2) Electronic Security and Surveillance Facilities

The collection substation and the O&M building will have alarm systems and video recording in place. No other electronic security is currently proposed for the Facility. However, intrusion detection can be added to access road gates and wind turbine towers if such measures are determined to be necessary during Facility operation.

## (3) Security Lighting

Security lighting will be installed at all wind turbines, the collection substation, and the O&M building. Security lighting that fails will be promptly replaced and maintenance inspections of collection substation and turbines conducted in accordance with the inspection schedule indicated in the Facility's Preliminary Operations and Maintenance Plan will include checking site security lighting (see Appendix I). A summary of the security lighting for turbines, the collection substation, and the O&M building is provided below (see Section 6 of the Preliminary Site Security Plan in Appendix X for additional detail about lighting).

- Turbine lighting – Each turbine will have a safety light near the door, which will be set on a motion detector (if feasible) and hooded downward. If motion detection lighting is not feasible, the light will be placed on an auto-off switch so that it automatically shuts off after a specified period of time. (i.e., period of time needed to accomplish any nighttime safety or maintenance work). The light will be the lowest intensity required to accomplish its safety function, and will not be a sodium vapor light.
- Substation lighting – The collection substation will be equipped with low-light video and/or camera surveillance monitoring or other security methods that do not require lighting whenever practicable. Where substation lighting is necessary, it will be set on a motion detector or an auto-off switch, and hooded downward. The light will be the lowest intensity required to accomplish its safety purpose and will not be a sodium vapor light. Following Certification of the Facility, a lighting designer will be employed to design a lighting plan for the substation in order to avoid any redundant and ineffective lighting.
- O&M building lighting – The O&M building lights will be set on a motion detector (if feasible) and hooded downward. If motion detection lighting is not feasible, the light will be placed on an auto-off switch so that it automatically shuts off after a specified period of time. The light will be the lowest intensity required to accomplish its safety function, and will not be a sodium vapor light.

#### (4) Aircraft Safety Lighting

Lighting of the turbines (and other infrastructure as needed) will comply with Federal Aviation Administration (FAA) regulations, and will follow specific FAA lighting design guidelines to reduce collision risk. On November 3, 2016, the FAA issued Determinations of No Hazard to Air Navigation (DNH) for all 76 turbine locations included in this Application. The DNH is found in Appendix Y. It is the standard procedure of the FAA to stipulate that warning lights be installed on all turbines until the final Facility layout has been established. It is anticipated that the final lighting plan will reduce the number of turbines requiring lighting to approximately one-third of the total number of Facility turbines, which is typical for a wind energy project. The final lighting plan will ultimately be approved by the FAA, and therefore will ensure aircraft safety. The turbine lights must conform to FAA's December 4, 2015 Advisory Circular 70/7460-1L or as updated, specifically Chapter 13 (Marking and Lighting Wind Turbines), which requires the use of FAA L-864 aviation lights (Chapter 13 of the FAA Circular is included in Appendix P). Because the DNHs received contemplate the use of white paint/synchronized red lights, radar-activated FAA marking lights will not be considered for the Facility. Radar-activated FAA marking light systems are considerably more expensive than the traditional white paint/synchronized red light marking system. Furthermore, radar-activated lighting is less practical at wind farms such as the Facility which cover a comparatively large area and so require a large number of radar locations to provide the necessary coverage.

#### (5) Setback Considerations

See Exhibit 6(a) for a detailed discussion of Facility setbacks. These setbacks, in association with the access controls discussed in (b)(1) and security lighting discussed in (b)(3) of this Exhibit, should ensure adequate safety and security during operation of the Facility.

#### (6) Cyber Security Program

The Applicant has partnered with an industry leading Managed Services Security Provider that is compliant with the North American Electric Reliability Council's (NERC) Critical Infrastructure Protection (CIP) standards and provides continuous (24 hours/day, 7 days/week, 365 days/year) monitoring and alerting on all servers, workstations, and firewalls by a Security Operations Center. This coverage includes the O&M building as well as the collection substation communication lines and end points. The mandatory NERC Reliability Standards include CIP Standards 001 through 009, which address the security of cyber assets essential to the reliable operation of the electric grid. To date, these standards (and those promulgated by the Nuclear Regulatory Commission) are the only mandatory cybersecurity standards in place across the critical infrastructures of the United States. Subject to Federal Energy Regulatory Commission (FERC) oversight, the NERC and its Regional Entity partners enforce

these standards, which are developed with substantial input from industry and approved by FERC, to accomplish NERC's mission of ensuring the security and reliability of the electric grid (NERC, 2013). On other projects, the Applicant has implemented a multi-tier advanced endpoint approach to threat detection and mitigation.

Furthermore, EverPower provides all site and corporate employees with ongoing cybersecurity awareness training on an annual basis, which will be the standard for the Baron Winds Project as well. Additionally, EverPower has implemented a number of corporate policies that address strong password encryption, two factor authentication, an incident response plan and playbook, as well as off-site storage of log files and backup of critical assets that will apply to the Baron Winds Project. The Applicant anticipates incorporating these measures at the Facility.

(c) Preliminary Safety Response Plan

Risks to the community posed by wind projects such as the Facility are minimal because the turbines themselves are safe and because they are located in rural locations, away populated areas. Moreover, those risks theoretically posed by wind power—ice shedding, tower collapse, blade failure, and fire in the turbines—are readily addressed through the setback requirements (see Exhibit 15 for details).

A Preliminary Emergency Action Plan (EAP) has been developed by the Applicant and is included as Appendix W to this Application. The information contained in the EAP, which was developed in conjunction with local emergency service providers, will be made available to the employees of the Applicant and to any visitors at the Facility, including workers. The EAP outlines the procedures to follow in the event of an emergency. In addition to identifying specific emergencies that could arise at the Facility, the EAP also provides awareness of the following:

- Alarm and emergency evacuation procedures.
- Procedures to be followed by site personnel who remain to operate critical operations before they evacuate.
- Rescue and medical duties for all site personnel following emergency evacuation.
- Persons who can be contacted for further information or explanation of duties under this plan.
- Training guidelines for site personnel regarding this plan to support safe practices in the event of an emergency.

Overall safety and security risks associated with the Facility are anticipated to be minimal. A discussion of the EAP elements is provided below.



## (1) Identification of Contingencies that Would Constitute an Emergency

The EAP has been developed to support the safety of persons at the Facility in the event of a major emergency. The EAP contains information regarding the following emergency situations (and for each, outlines procedures and/or guidelines to be followed in the event an emergency arises):

1. Medical emergency
2. Building evacuation
3. Building utility failure
4. Fire
5. Earthquake
6. Adverse weather
7. Hazardous material spill
8. Crime/violent behavior/civil disturbance
9. Bomb threat

## (2) Emergency Response Measures by Contingency

In the event an emergency response measure is necessary, the EAP provides detailed instructions to (and procedures/guidelines to be followed by) site personnel, the general public, and emergency responders for each of the above listed contingencies. A brief summary of these procedures is provided below (see Appendix W for additional information).

1. Medical emergency
  - a. Do not move victim unless safety dictates.
  - b. If the injury appears to be life threatening, be prepared to give the 911 operator as much information as possible.
  - c. If the injury is not life threatening or likely to result in permanent disability, first aid care may be provided by a trained employee, or the injured person may be transported to the hospital.
2. Building evacuation
  - a. An O&M building evacuation is required in the event of an emergency situation, e.g., fire/chemical spill.
  - b. Be aware of all marked exits from your area and building. Know the routes from your work area. Marked exit signs are installed in all buildings.
  - c. Take note of physically handicapped individuals in your area that may need assistance.

- d. When instructed to evacuate, walk quickly to the nearest marked exit and ask others to do the same.
  - e. Keep fire lanes, hydrants and walkways clear for emergency crews and equipment.
  - f. Do not return to an evacuated building unless directed to do so by the Plant Operator.
3. Building utility failure
- a. Notify the Plant Operator.
  - b. Do not return to an evacuated building unless directed to do so by the Plant Operator.
4. Fire
- a. Call 911 in the event of a fire. After the 911 call, notify the Plant Operator and Turbine Supplier Supervisor.
  - b. Know the location of fire extinguishers, fire exits and alarm systems in your area and know how to use them. Extinguishing a fire should not be done unless it can be done in a safe manner.
  - c. A complete evacuation of the entire building or area will be performed in **any** fire emergency. All site personnel should proceed to the nearest exit or safe location.
  - d. Seek out any handicapped personnel in the area and provide assistance when exiting.
  - e. Managers or site personnel will assist in the evacuation and will meet the Fire Department to direct them to the proper location. Once the Fire Department has arrived, the responding incident commander will take charge of all rescue operation and suppression activities.
  - f. Keep fire lanes, hydrants and walkways clear for emergency crews and vehicles.
  - g. Do not return to an evacuated building unless directed to do so by the Plant Operator.
5. Earthquake
- a. Stay in the building. Many injuries occur while people run through the building to the outside. It is possible to be hit by flying objects, falling plaster or other debris.
  - b. Assist any handicapped persons in the area and find a safe place for them.
  - c. Drop, cover and hold. Try to take cover under a table or other sturdy furniture. Kneel, sit or stay close to the floor. Hold onto furniture legs for balance. Be prepared to move with your cover. Face away from any windows.
  - d. If you are outside, stay outside. Go to a clear area away from buildings, trees and power lines.
6. Adverse weather
- a. Remain indoors.
  - b. Stay away from open doors or windows, metal pipes or electrical appliances.
  - c. Prepare for flash flooding.
  - d. Follow Management instructions.
7. Hazardous material spill

- a. Refer to the Spill Prevention, Control and Countermeasures (SPCC) Plan (see Appendix FFF).
- 8. Crime/violent behavior/civil disturbance (see Section (a)(2) above).
- 9. Bomb threat
  - a. All bomb threats must be treated as a serious matter and must be considered real until proven otherwise.
  - b. If through mail or suspicious packages: do not handle the envelope or package. Clear the area and call 911, then contact the Plant Operator.

### (3) Evacuation Control Measures by Contingency

Unlike a nuclear facility or a natural gas facility, a wind power facility does not create safety concerns of a magnitude that would generally necessitate an evacuation. Therefore, Facility-related operations are not anticipated to require evacuation. Although unlikely, natural disasters (e.g., tornadoes, earthquakes, flooding) and man-made disasters (e.g., fire and bomb threats) represent the only possible circumstances that may require evacuation. However, in the event an evacuation from the Facility is necessary, the EAP provides detailed instructions to site personnel, the general public, and emergency responders (see Section (c)(2) above for more information).

### (4) Community Notification Procedures by Contingency

The EAP includes protocols for the notification of local first responders/emergency services, land owners, neighbors of the O&M building, relevant utilities, and environmental agencies in the event of an emergency. The PO will notify Facility component host land owners of incidents occurring on their private property via telephone. This reporting will be at the discretion of the PO. Emergency notification of neighbors of the O&M building will be provided if the PO deems it necessary.

The PO will notify local or regional environmental agencies of incidents which may have resulted in violation of applicable environmental regulations (for example, release of chemicals or lubricants to the environment) or if such notification is otherwise required by the applicable environmental laws/regulations. In addition, as indicated in Section (c)(2), local emergency responders also will be notified in the event of various emergencies.

### (d) Provision of Security and Safety Plans to NYS Division of Homeland Security

The Preliminary Site Security Plan (Appendix X) and Preliminary EAP (Appendix W) were provided to the NYS Division of Homeland Security on September 28, 2017.

(e) Provision of Security and Safety Plans to Local Office of Emergency Management

The Facility site is not located within any part of a city that has a population over one million. As a result, review by the local office of emergency management is not required by the Article 10 regulations. However, the Applicant has coordinated with the Steuben County Emergency Services Department. The EAP, as described above, has been provided to the county emergency services department.

(f) Onsite Equipment to Respond to Fire Emergencies or Hazardous Substance Incidences

The final EAP, as described above, will include a detailed list of all equipment available for responding to fire emergencies or hazardous substance incidences. In general, the Applicant will provide fire extinguishers in all turbines, automated external defibrillators (AEDs) at locations, which will be marked on a map, first aid kits in the collection substation control house, ground floor and nacelle of wind turbines, and O&M building, and spill kits and Spec Pak at the O&M building. There will also be emergency descent rescue devices in the nacelles of every unit to allow personnel to escape from a turbine in the event of a serious injury, fire, etc. Sliders for the fall arrest system will be provided to emergency responders who have been specifically qualified to climb wind turbines.

Fire responders are not expected to access a turbine location to fight a fire since current best practice is to let the fire burn out at a turbine. Emergency responders may not have direct access to turbines or the collection substation through access roads due to security concerns and landowner preferences. However, any time that the facility operators and maintenance personnel are at a turbine site or substation, the access road gates remain unlocked, so medical personnel will be able to access the turbines and collection substation when personnel are at these locations.

(g) Contingency Plans for Fire Emergencies or Hazardous Substance Incidences

The EAP contains a protocol and guidelines to be followed in the event of a fire emergency, as summarized in Section (c)(2) above. In addition, drills with emergency responders will occur at least once a year. Drill activities will be jointly decided between site management and emergency responders and will typically cover a different rescue aspect each time. In addition, a detailed SPCC Plan has been prepared, and will be implemented for both the construction and operation phases of the Facility. The SPCC Plan provides an assessment of potential hazardous substances that could be utilized during the construction and operation/maintenance of the Facility as well as detailed protocols to be followed in the event of minor and major hazardous substance discharge events and a Facility-wide inventory of spill response equipment. The majority of potentially hazardous substances on site consist of various oils such as hydraulic oil, mineral oil, and lubricating oil (see Exhibit 23 for additional information on the Preliminary SPCC Plan).

A fire at the Facility's collection substation will be contained through a combination of a proposed gravel pad and an access road around the substation. As a preliminary matter, the gravel pad underlying the substation will contain fire should it occur. Moreover, the access road, which consists of gravel and compacted stone, provides a buffer between the substation and the surrounding properties to help prevent the spread of fire. Finally, the substation will be constructed with either an above grade feature (earthen berm or concrete pit), or a below grade secondary containment system (loose stone and/or a geomembrane liner), which will provide further containment in the event of a fire. With regard to emergency response, the collection substation is connected to the existing POI substation and thus is a known location for local firefighters and is easily accessed via the access road.

(h) Provision of Security and Safety Plans to Local Emergency First Responders

The EAP, as described above, has been provided to the local emergency first responders that serve the Facility.

## REFERENCES

North American Electric Reliability Council. 2013. *Critical Infrastructure Protection Compliance*. Available at: <http://www.nerc.com/pa/CI/Comp/Pages/default.aspx> (Accessed January 2017).