

# **Heritage Wind Project**

**Case No. 16-F-0546**

**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. Although 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. These plans are described below and are based on the Applicant's experience in addressing safety and security issues at other energy generating facilities. The Applicant has coordinated with Orleans County Emergency Services, 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

The Applicant has prepared a Preliminary Site Security Plan (Appendix 18-A of this Application) with measures to be implemented during Facility construction to ensure safety and security. Preparation of the Final Site Security Plan will begin immediately following selection of the balance of plant (BOP) contractor, and the final plan will be provided to the Siting Board upon completion as a compliance filing.

#### (1) Access Controls

To reduce safety and security concerns, the general public will not be allowed on the Facility Site during construction. Access will be restricted by using locked gates, other barriers, and/or signage, as appropriate. After hours, vehicular access to active portions of the Facility Site 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. An overnight security patrol may also be present on-site during the construction phase when materials and work in progress may be more accessible and at risk of vandalism or theft. A log of all personnel visiting, entering, or working on the Site will be maintained. Visitors will be required to attend the site orientation/safety training provided.

## (2) Electronic Security and Surveillance Facilities

Trespassing is normally not an issue during construction of wind power projects. Therefore, electronic security and surveillance is not currently proposed. However, if problems arise, and intrusion/vandalism becomes an issue, video cameras or other surveillance technology may be set up to monitor activity during construction.

## (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 and will be reduced to the extent practicable to minimize additional potential environmental impacts. Security lighting that fails will be promptly repaired or replaced. Construction that takes place outside of daylight hours will include the lighting necessary to allow for safe construction activities while at the same time reducing off-site light pollution to the maximum extent practicable.

A detailed construction-related Facility Exterior Lighting Plan ("Lighting Plan") will be submitted as a compliance filing for review and approval prior to the commencement of construction. The elements to be addressed in the Lighting Plan (e.g., the use of task lighting and full cut-off fixtures) are outlined in the Preliminary Site Security Plan (see Appendix 18-A).

## (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 and periodic security measure inspections, 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 new point of interconnection (POI) substation, which will be owned and operated by National Grid. 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, which includes the following measures to be implemented during Facility operation.

## (1) Access Controls

All access roads that are not public will be posted with “No Trespassing” signs to limit and deter public access to the Site and wind turbine locations. Heritage Wind will install gates with locks at the entrances to access roads if requested by the landowner under their Lease Agreement. Access requests should be directed to the Facility Manager, and any questions related to access during an emergency event should refer to the Emergency Action Plan (See Appendix 18-B). All contractors must inform the Facility Manager of the portion of the Site they intend to visit and the approximate date and time.

All wind turbines have access doors at their bases that are closed and locked except when Facility personnel are inside. 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 Site.

The collection substation, which will be owned and maintained by Heritage Wind, will be fenced with an 8-foot perimeter fence with three rows of barbed wire on top. Signs will be posted along the fence stating, “High Voltage Hazard” and “No Trespassing.” The access gate will be locked, and access will be granted only to authorized personnel. The operation and maintenance (O&M) building will be locked when not in use to deter intruders and “No Trespassing” signs will be posted. If unauthorized access and/or vandalism is found to be a problem, additional gates and/or signage will be installed, as necessary.

The point of interconnection (POI) substation, which will be owned and maintained by National Grid, will be constructed with an 8-foot fence with three rows of barbed wire on top. Signs will be installed along the fence stating, “High Voltage Hazard” and “No Trespassing”. Except for installing the above security features at the time of construction, POI substation security will be the sole responsibility of National Grid.

## (2) Electronic Security and Surveillance Facilities

If intrusion/vandalism and damage to the Facility, including access roads, turbines, and substations, becomes an issue. Intrusion detection devices, video cameras, alarm systems or other surveillance technology may be installed as necessary to monitor activities during construction. Emergency responders will be notified in the event of unauthorized access. If unauthorized access and/or vandalism is found to be a problem, additional intrusion detection devices (e.g., security cameras) will be installed, as necessary.

### (3) Security Lighting

Low-intensity security lighting will be installed at all wind turbines, the collection substation, and the O&M building. Security lighting that fails will be promptly repaired or replaced. Maintenance inspections of the collection substation and turbines conducted in accordance with the inspection schedule indicated in the Facility's Preliminary O&M Plan will include checking site security lighting (see Appendix 5-D).

A detailed Facility Exterior Lighting Plan ("Lighting Plan") will be submitted as a compliance filing for review and approval prior to the commencement of construction. The elements to be addressed in the Lighting Plan (e.g., the use of task lighting and full cut-off fixtures) are outlined in the Preliminary Site Security Plan (Appendix 18-A).

### (4) Aircraft Safety Lighting

The Applicant initiated Department of Defense (DoD) coordination for early version of the proposed facility turbine array. The formal DoD review of the previous array was concluded on December 1, 2017 with the issuance of FAA Determinations of No Hazard (DNHs). Because these DNHs were associated with an older version of the turbine layout, the Applicant has re-filed a Notice of Proposed Construction with the DoD/FAA on for the current 33 turbine array presented in this Article 10 Application. As of the filing of this Application, the Applicant has not received a hazard determination from the FAA. Regardless, lighting on turbines and meteorological towers will comply with FAA regulations and will follow specific design guidelines to reduce collision risk.<sup>1</sup> The final lighting plan will ultimately be approved by the FAA and will ensure aircraft safety.

It is the standard procedure of the FAA to stipulate that warning lights must be installed on all turbines pending establishment of the final Facility layout. Once the final layout has been set, the number of turbines required to be lighted may be reduced. Based on past experience, the Applicant anticipates 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.

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<sup>1</sup> For example, wind turbine lights must conform to the 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 25-C). The Facility will comply with these and all other requirements imposed by the FAA. The Site Security Plan and this Exhibit will be revised, as necessary, to conform to any terms and conditions imposed by the FAA.

#### (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 will comply with all North American Electric Reliability Corporation (NERC) Critical Infrastructure Protection (CIP) standards. These mandatory Reliability Standards include CIP Standards 002 through 011, which address the security of cyber assets essential to the reliable operation of the electric grid. Physical access to critical cyber infrastructure areas will be restricted to those individuals who must have access. Where feasible, access into cyber secured restricted areas will be monitored by personnel or video surveillance. Periodic validation of compliance with the applicable standards by an independent auditor will be carried out as required by 16 NYCRR § 1001.18(b)(6).

In addition, the Applicant has implemented several 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.

#### (c) Preliminary Safety Response Plan

The regulations require the Applicant to prepare a preliminary safety response plan to ensure the safety and security of the local community. In fulfillment of that requirement, a Preliminary Emergency Action Plan (EAP) governing operation of the Facility has been developed by the Applicant and is included as Appendix 18-B to this Application. The EAP specifies the procedures to follow in the event of an emergency as well as the contingencies related to Facility operation that would constitute a safety or security emergency. The plan includes the following basic components:

- Emergency contact list.
- Plan overview.
- Emergency notification procedures (communication equipment; emergency notification procedures, including calling 911; and other immediate notification requirements).
- Alarm and emergency evacuation procedures (including general evacuation procedures and special requirements for turbine evacuations).

- Rescue and medical procedures (immediate response to injury/illness generally and special requirements for injuries/illnesses at turbine heights).
- Procedures for specific contingencies (see Section (c)(1) below)
- Overview of responsibilities of various personnel for emergency response.
- Procedures for rescue from turbine heights.
- Emergency equipment and locations.
- Training guidelines for site personnel.

An EAP addressing emergency response during construction will be developed by the BOP contractor, in consultation with Heritage Wind and local emergency responders. The construction-related plan will cover the same basic subjects as Appendix 18-B with a focus on construction-related concerns. Local emergency responders will be expected to assist only with emergencies for which they are trained and equipped. Specialized emergency response services/equipment will be provided by the Applicant/BOP contractor.

(1) Identification of Contingencies that Would Constitute an Emergency

The Heritage Wind Facility poses little risk to the community given the setback requirements governing the location of the turbines and ancillary equipment, which protect people and structures near the Facility from harm in the event of an emergency. Accordingly, the EAP focuses primarily on supporting the safety of persons at the Facility in the event of a major emergency; potential community concerns are addressed in the EAP as appropriate. The EAP contains information regarding the following emergency situations:

1. Medical emergency
2. Building utility failure
3. Fire
4. Hazardous material spills or releases
5. Earthquakes
6. Severe weather conditions (electrical storms, tornadoes, hurricanes, flooding and snow storms)
7. Physical security threats or criminal activity
8. Catastrophic turbine failure

For each emergency category, the EAP contains procedures/guidelines to be followed in the event an emergency arises, together with a checklist that identifies key tasks and specifies who is required to complete the task.



## (2) Emergency Response Measures by Contingency

As previously noted, in the event an emergency response measure is necessary, the EAP provides detailed instructions and procedures/guidelines to be followed by site personnel, the public, and emergency responders for each of the above listed contingencies. See Appendix 18-B for a description of the emergency response measures by contingency.

## (3) Evacuation Control Measures by Contingency

Unlike a nuclear facility or natural gas facility, the Applicant's proposed wind energy facility does not create safety concerns of a magnitude that would generally necessitate a community evacuation. Accordingly, the EAP focuses on evacuation of Facility personnel, including procedures covering evacuation at ground level as well as special procedures applicable to turbine evacuations. In addition, the EAP includes specific instructions relating to evacuations in relation to each of the contingencies identified above (e.g., fire, hazardous materials, earthquake, severe weather, and physical security threats).

## (4) Community Notification Procedures by Contingency

The EAP includes protocols for the notification of local first responders/emergency services, landowners, environmental agencies, and the community in the event of an emergency. Local first responders/emergency services will be notified of all emergencies for which their assistance is or may be required. The criteria for determining whether to contact local emergency responders are spelled out in the EAP for each contingency (e.g., medical assistance, fire, hazardous material spill or release, earthquake, severe weather, physical security threat).

In addition to direct outreach to emergency responders via 911, the Applicant's Control Room Operator (CRO) will assess each emergency to determine whether outreach to the community generally and/or to host and adjacent landowners may potentially be required and contact the Director of Communications as appropriate. The Director of Communications will decide whether reporting is necessary and will notify community officials and/or landowners of the emergency via telephone as appropriate. Reports of spills or releases that require immediate outreach to federal, State and/or local authorities will be made by the Facility Manager.

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

The Preliminary Site Security Plan (Appendix 18-A) and the Preliminary EAP (Appendix 18-B) were provided to the New York State Division of Homeland Security and Emergency Services on November 18, 2019.

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

,The Preliminary Site Security Plan (Appendix 18-A) and Preliminary EAP (Appendix 18-B) were provided to the Orleans County Emergency Management Office on November 18, 2019.

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

The Preliminary EAP, as described above, includes a list of all equipment available for responding to fire emergencies or hazardous substance incidents. In general, onsite equipment to respond to fire emergencies or hazardous substance incidents will be in the O&M building. The type and location of emergency rescue equipment will be determined once the final turbine selection has been made.

First responders (i.e., individuals designated or trained to respond to an emergency) are not expected to fight fires in the turbine nacelle. Current best practice is to let such fires burn out unless they can be immediately extinguished by Facility personnel who are working in the nacelle at the time the fire starts. 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 Facility operators and maintenance personnel are at a turbine site or substation, the access road gates will remain unlocked so medical personnel can access the location should an emergency arise.

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

The Preliminary EAP contains a protocol and guidelines to be followed in the event of a fire emergency. In addition, all Facility personnel will perform an EAP drill at least annually to provide an understanding of employees' duties in assisting in a safe and orderly evacuation, communication requirements, etc. In addition, a Preliminary Spill Prevention, Control and Countermeasures (SPCC) Plan has been prepared and will be implemented for both the construction and operation phases of the Facility (see Appendix 23-B). The Preliminary 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 protocols to be followed in the event of minor and major hazardous substance discharge events and a Facility-wide inventory of spill response equipment. Most potentially hazardous substances onsite consist of petroleum products

such as diesel fuel, 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, an access road around the substation, and an above grade feature or below grade secondary containment system. The gravel pad underlying the substation and the access road, which consists of gravel and compacted stone, provides a fuel break that should be sufficient to contain and prevent the spread of fire. 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 geomembrane liner), either of which will provide further containment in the event of a fire.

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

Copies of the preliminary EAP and Site Security Plan as described above, were provided to the local emergency first responders that serve the Facility Site by letter dated November 18, 2019. The first responders that received copies of the plans are the Barre Fire Company, the Central Orleans Volunteer Ambulance, and the Orleans County Emergency Services and Public Safety.

## REFERENCES

North American Electric Reliability Corporation (NERC). 2016. Critical Infrastructure Protection Compliance. Available at: <http://www.nerc.com/pa/CI/Comp/Pages/default.aspx>.