

Mohawk Solar

Case No. 17-F-0182

1001.15 Exhibit 15

Public Health and Safety

EXHIBIT 15 PUBLIC HEALTH AND SAFETY

The Article 10 regulations require the assessment of potential risks associated with the construction and operation of the Facility. Public health issues associated with the construction of the Facility are limited to typical risks associated with commercial construction projects.

Solar generated power allows for the production of energy without the emission of pollutants, resulting in positive effects on air quality. The development and operation of renewable energy generation projects can serve as a major public health benefit due to their positive impact on air quality and contribution to the fight against climate change.

New York State's 2015 State Energy Plan involves reducing Greenhouse Gas (GHG) emissions from the energy sector, because this is critical to protecting the health and welfare of New Yorkers. Clean air is essential to New Yorkers' health and quality of life. New York's energy system is the source of many benefits for New Yorkers; however, it is also the cause of damaged natural resources, such as clean air and waterways, through the extraction, processing, transportation or burning of fossil fuels (NYSEPB, 2015). The burning of these fossil fuels sends pollutants such as CO₂, NO_x, SO₂, mercury compounds, and lead compounds airborne which have been linked to asthma and other breathing issues (NYSEPB, 2015). The kinds of health risks associated with the combustion of carbon-based fuels are not associated with solar, wind energy or hydroelectric power. While the use of these means of producing electric power is not risk-free, increasing the fraction of New York's electricity needs met by solar, wind, and water will, in general, assist in combatting climate change and have a positive impact on public health and welfare by significantly displacing air pollutants. The recognition of the benefits of renewable energy has significantly contributed to New York's nation-leading commitment to renewable energy development through the Clean Energy Standard and is in part a leading reason for New York establishing the 50% by 2030 goal set forth in the New York State Energy Plan.

(a) Gaseous, Liquid, and Solid Wastes to be Produced During Construction and Operation

One of the advantages of producing electricity from the sun is that it does not produce gaseous wastes during operation, and a minimal amount of liquid and solid wastes during construction. With respect to construction, the generation of liquid and/or solid waste is primarily limited to standard operation of construction equipment and will be handled by the contractor in accordance with all applicable laws and regulations pertaining to such wastes.

During construction, sanitary facilities used by workers will consist of portable toilets, which will be emptied on an as needed basis. During operation of the Facility, if the operation and maintenance (O&M) building is newly constructed at the identified site, it will be served by water carried on site and portable toilets. If an existing building is used as

the O&M facility, the Applicant will have the existing systems inspected and implement any needed upgrades identified.

Facility construction will generate minor amounts of solid waste, primarily, plastic, wood, cardboard and metal packing/packaging materials, construction scrap and general refuse. This construction material will be collected from work areas and disposed of at a licensed solid waste disposal facility. Neither the Towns of Canajoharie and Minden, nor Montgomery County provide a waste collection service for the Facility Site, but residents can hire private waste removal companies. Montgomery County has two transfer stations, one located in the Town of Amsterdam and the other located in the Town of Sprakers. The closest transfer station to the Facility is the Montgomery-Otsego-Schoharie Solid Waste Management Authority (MOSA) Western Transfer Station located in the Town of Sprakers. The MOSA Western Transfer Stations accepts recyclables at no charge and non-hazardous waste for \$73.50 per ton (Montgomery County, 2019).

Facility construction will be initiated by clearing woody vegetation from all designated areas as indicated on the Final Construction Drawings (to be prepared following issuance of the Certificate). Tree clearing is anticipated to be minimal given much of the Facility will be sited in open fields (Preliminary Design Drawings (see Appendix 11-A) and the Solar Panel Array Details (see Appendix 11-B)) however, any trees that require clearing from the Facility Site will be sold to a timber buyer or disposed of at a licensed solid waste disposal facility. Limbs and brush will be chipped and spread in upland areas (safely away from water resources) on-site so as not to interfere with existing land use practices

(b) Anticipated Volumes of Wastes to be Released to the Environment

This is not applicable to the proposed Facility.

(c) Treatment Processes to Minimize Wastes Released to the Environment

This is not applicable to the proposed Facility.

(d) Procedures for Collection, Handling, Storage, Transport, and Disposal of Wastes

See Section (a) above for a discussion of waste disposal practices.

(e) Wind Power Facility Impacts

This is not applicable to the proposed Facility.

(f) Public Health and Safety Maps

See Figure 15-1 for Public Health and Safety maps, which depict various facilities based on publicly available data within a 5-mile radius of the Facility, including:

- Known public water supplies
- Fire stations/EMS stations
- Emergency services mobile land sites
- U.S. Environmental Protection Agency-regulated facilities
- Bridges
- Regulated dams
- Flood hazard areas

Data sources for Figure 15-1 include FEMA Flood Zone mapping, NYSDEC Department of Water Resources, NYSDEC Division of Environmental Remediation, EPA Geodata database, Google Map (used to digitize emergency service stations), NYSDOT Bridge Data Information System, and the USGS's Geographic Names Information Systems.

(g) Significant Impacts on the Environment, Public Health, and Safety

As indicated above in subsections (a) through (d), the Facility is not expected to result in any public health or safety concerns associated with gaseous, liquid, or solid wastes. Solar energy facilities do not require significant use or storage of combustible fuels, thereby avoiding the emission of pollutants which can cause public and environmental health issues.

(h) Unavoidable Adverse Impacts and Appropriate Mitigation/Monitoring Measures

Despite the positive effects anticipated as a result of the Facility, its construction and operation will necessarily result in certain unavoidable impacts to the environment, although impacts are not anticipated to be adverse. The majority of these impacts will be temporary and will result from construction activities.

Minor unavoidable impacts to air quality are anticipated during the construction phase of the facility. Such impacts could include emissions from engine exhaust and the generation of fugitive dust. These impacts are anticipated to be short-term and will not be of a magnitude or duration that will significantly impact local air quality. Dust control measures will be utilized and consistent with Standards and Specifications for Dust Control, as outlined in the New York State Standards and Specifications for Erosion and Sediment Controls (NYSDEC, 2016). Fossil fuel-fired generators may cause additional temporary adverse impacts if used by the contractor. The use of the generator may

temporarily release emissions when providing electrical service to construction trailers located at the staging/laydown yard. To minimize the impact of the generator on air quality, the generator will not be left idling when it is not actively providing power to a source. In addition, the Applicant will instruct the contractor to maintain the generators in accordance with manufacturer instructions and/or best management practices. See Exhibit 12 for additional information on potential dust-related impacts and control measures during construction, and Exhibit 17 for additional information on construction-related impacts to air quality.

(i) Irreversible and Irretrievable Commitment of Resources

The proposed Facility will require the irreversible and irretrievable commitment of certain human, material, environmental and financial resources. Human and financial resources will be expended by numerous entities including the Applicant, the State of New York (i.e., various state agencies), Montgomery County, and the Towns of Canajoharie, and Minden for the planning and review of the Facility. The expenditure of funds and human resources will continue throughout the permitting and construction phases of the Facility and are viewed as having a positive economic impact on the surrounding communities.

Various types of manufacturing and construction materials and building supplies will be committed to the Facility. The use of these materials, such as gravel, concrete, reinforcement steel, cables etc., will represent a long-term commitment of these resources, which will not be available for other projects. However, some of these materials (e.g., steel, gravel) may be retrievable following the operational life of the Facility as part of the decommissioning process (see Exhibit 29).

Energy resources will be irretrievably committed to the Facility during both construction and operation of the Facility. Fuel, lubricants and electricity will be required during PV module fabrication and activities associated with the manufacture of PV modules and components of the electric collection/interconnect system, as well as operation of various types of construction equipment and vehicles on-site, and for the transportation of workers and materials to the Facility area. However, such resource use is necessary for the construction and operation of all forms of energy generation, and the commitment of energy resources to construct and operate the Facility will be minor compared to the energy generated annually by the Facility (90.5 MW) and made available to the state power grid.

(j) Impact Minimization Measures

General measures to minimize impacts from construction and operation of the Facility include compliance with the conditions of various local, State and/or federal regulations that will ultimately govern Facility development as well as the commitments made by the Applicant throughout this Application. The Facility has been sited to minimize

potential impacts. In addition, since PV panel arrays are located on leased private property, the public's access to the Facility is restricted.

The Article 10 regulations require public input into the environmental review of proposed large-scale energy development projects so that potential adverse impacts can be identified prior to implementation and avoided, minimized or mitigated to the greatest extent practicable. This Application was prepared in accordance with these regulations and provides a primary means by which the potential costs and benefits of the Facility are described and weighed in a public forum. Facility alternatives are evaluated, and potential adverse impacts are identified, avoided, minimized and mitigated to the greatest extent practicable.

Beyond Article 10, compliance with the other regulations governing the development, design, construction and operation of the proposed Facility also will serve to minimize adverse impacts. For instance, during the construction phase, activities will be carried out using best management practices to minimize the impact of fugitive dust on the surrounding air quality. Federal permitting required by the U.S. Army Corps of Engineers will serve to protect water quality and resources, along with implementation of a State-approved stormwater permit. Highway permitting at the local, county, and State level will ensure that congestion and damage to roadways in the area are avoided or minimized to ensure public safety. For a detailed analysis of impact minimization measures for a given resource, see the appropriate exhibit in this Application (e.g., for impact minimization measures associated with cultural resources see Exhibit 20, for impact minimization measures associated with wetlands see Exhibit 22).

(k) Mitigation Measures

In the Applicant's experience, when a project such as the Facility is properly sited and designed, mitigation measures are generally not necessary because significant impacts to public health and safety typically do not occur. However, in the event the Facility impacts public health and safety, the Facility development and operation will include measures to mitigate the impacts, which generally include the following:

- Developing and implementing various plans to minimize adverse impacts to air, soil, and water resources (which can directly impact public health), including a dust control plan, sediment and erosion control plan, and Spill Prevention, Control, and Countermeasures (SPCC) plan.
- Documenting existing road conditions and undertaking public road improvement/repair as required to mitigate impacts to local roadways.
- Developing an Emergency Action Plan with local first responders.
- Developing a Site Security Plan.

- Developing and implementing a complaint resolution plan to address landowner concerns throughout Facility construction and operation.
- Adherence to all relevant conditions included in a Certificate of Environmental Compatibility and Public Need if issued by the Siting Board.

(l) Proposed Monitoring

The Applicant is committed to developing and operating its projects in a safe and environmentally responsible manner. Details regarding the inspection protocol and schedule are provided in the Preliminary O&M Plan attached as Appendix 5-E. The Facility will be constructed in accordance with applicable health and safety standards. Monitoring efforts during operations related to public health and safety include continuous reporting on the Facility's performance to the National Control Center in Portland, Oregon. Continuous monitoring and reporting to the National Control Center will help prevent impacts to the Facility Site or surrounding area in the event of a natural disaster, induced electrical grid event, or additional problems that may arise.

For monitoring associated with a specific resource, see the appropriate exhibit in this Application (e.g., for environmental compliance monitoring during construction see Exhibit 22). In addition, standard inspections will examine PV panels and panel module support structures.

REFERENCES

Montgomery County. 2019. Montgomery County Solid Waste 2019 Rate Schedule. Available at: https://www.co.montgomery.ny.us/sites/public/government/mcsolidwaste/mcsolidwaste_documents/Solid_Waste_fees.pdf.

NYSDEC. 2016. New York State Standards and Specifications for Erosion and Sediment Control (Blue Book). Division of Water. November 2016.

New York State Energy Planning Board (NYSEPB). 2015. 2015 New York State Energy Plan: Vol 2 Impacts and Considerations. Available at: <https://energyplan.ny.gov/Plans/2015>.