Ohio Administrative Code

Rule 4906-4-08 Health and safety, land use and ecological information.

Effective: April 26, 2018

(A) The applicant shall provide information on health and safety.

(1) Equipment safety. The applicant shall provide information on the safety and reliability of all equipment.

(a) Describe all proposed major public safety equipment.

(b) Describe the reliability of the equipment.

(c) Provide the generation equipment manufacturer's safety standards. Include a complete copy of the manufacturer's safety manual or similar document and any recommended setbacks from the manufacturer.

(d) Describe the measures that will be taken to restrict public access to the facility.

(e) Describe the fire protection, safety, and medical emergency plan(s) to be used during construction and operation of the facility, and how such plan(s) will be developed in consultation with local emergency responders.

(2) Air pollution control. Except for wind farms, the applicant shall describe in conceptual terms the probable impact to the population due to failures of air pollution control equipment.

(3) Noise. The applicant shall provide information on noise from the construction and operation of the facility.

(a) Describe the construction noise levels expected at the nearest property boundary. The description shall address:

(i) Blasting activities.

(ii) Operation of earth moving equipment.

(iii) Driving of piles, rock breaking or hammering, and horizontal directional drilling.

(iv) Erection of structures.

(v) Truck traffic.

(vi) Installation of equipment.

(b) Describe the operational noise levels expected at the nearest property boundary. The description shall address:

(i) Operational noise from generation equipment. In addition, for a wind farm, cumulative operational noise levels at the property boundary for each property adjacent to or within the project area, under both day and nighttime operations. The applicant shall use generally accepted computer modeling software (developed for wind turbine noise measurement) or similar wind turbine noise methodology, including consideration of broadband, tonal, and low-frequency noise levels.

(ii) Processing equipment.

(iii) Associated road traffic

(c) Indicate the location of any noise-sensitive areas within one mile of the facility, and the operational noise level at each habitable residence, school, church, and other noise-sensitive receptors, under both day and nighttime operations. Sensitive receptor, for the purposes of this rule, refers to any occupied building.

(d) Describe equipment and procedures to mitigate the effects of noise emissions from the proposed facility during construction and operation, including limits on the time of day at which construction activities may occur.

(e) Submit a preconstruction background noise study of the project area that includes measurements taken under both day and nighttime conditions.

(4) Water impacts. The applicant shall provide information regarding water impacts

(a) Provide an evaluation of the impact to public and private water supplies due to construction and operation of the proposed facility.

(b) Provide an evaluation of the impact to public and private water supplies due to pollution control equipment failures.

(c) Provide existing maps of aquifers, water wells, and drinking water source protection areas that may be directly affected by the proposed facility.

(d) Describe how construction and operation of the facility will comply with any drinking water source protection plans near the project area.

(e) Provide an analysis of the prospects of floods for the area, including the probability of occurrences and likely consequences of various flood stages, and describe plans to mitigate any likely adverse consequences.

(5) Geological features. The applicant shall provide a map of suitable scale showing the proposed facility, geological features of the proposed facility site, topographic contours, existing gas and oil wells, and injection wells. The applicant shall also:

(a) Describe the suitability of the site geology and plans to remedy any inadequacies.

(b) Describe the suitability of soil for grading, compaction, and drainage, and describe plans to remedy any inadequacies and restore the soils during post-construction reclamation.

(c) Describe plans for the test borings, including closure plans for such borings. Plans for the test borings shall contain a timeline for providing the test boring logs and the following information to the

board:

(i) Subsurface soil properties.

(ii) Static water level.

(iii) Rock quality description.

(iv) Per cent recovery.

(v) Depth and description of bedrock contact.

(6) Wind velocity. The applicant shall provide an analysis of high wind velocities for the area, including the probability of occurrences and likely consequences of various wind velocities, and describe plans to mitigate any likely adverse consequences.

(7) Blade shear. For a wind farm, the applicant shall evaluate and describe the potential impact from blade shear at the nearest property boundary and public road.

(8) Ice throw. For a wind farm, the applicant shall evaluate and describe, by providing a site-specific ice throw risk analysis and assessment study, the potential impact from ice throw at the nearest property boundary and public road.

(9) Shadow flicker, For a wind farm, the applicant shall evaluate and describe the potential cumulative impact from shadow flicker at the property boundary and sensitive receptors within a distance of ten rotor diameters or at least one-half mile, whichever is greater, of a turbine, including its plans to minimize potential impacts.

(10) Radio and TV reception. The applicant shall evaluate and describe the potential for the facility to interfere with radio and TV reception and describe measures that will be taken to minimize interference.

(11) Radar interference. The applicant shall evaluate and describe the potential for the facility to

interfere with military and civilian radar systems and describe measures that will be taken to minimize interference.

(12) Navigable airspace interference. The applicant shall evaluate and describe the potential for the facility to interfere with navigable airspace and describe measures that will be taken to minimize interference. The applicant shall coordinate such efforts with appropriate state and federal agencies.

(13) Communication interference. The applicant shall evaluate and describe the potential for the facility to interfere with microwave communication paths and systems and describe measures that will be taken to minimize interference. Include all licensed systems and those used by electric service providers and emergency personnel that operate in the project area.

(B) The applicant shall provide information on ecological resources.

(1) Ecological information. The applicant shall provide information regarding ecological resources in the project area.

(a) Provide a map of at least 1:24,000 scale containing a one half-mile radius from the project area, showing the following:

(i) The proposed facility and project area boundary.

(ii) Undeveloped or abandoned land such as wood lots or vacant tracts of land subject to past or present surface mining activities, not used as a registered game preserve or in agricultural production.

(iii) Wildlife areas, nature preserves, and other conservation areas.

(iv) Surface bodies of water, including wetlands, ditches, streams, lakes, reservoirs, and ponds.

(v) Highly-erodible soils and slopes of twelve percent or greater.

(b) Provide the results of a field survey of the vegetation and surface waters within one-hundred feet

of the potential construction impact area of the facility. The survey should include a description of the vegetative communities, and delineations of wetlands and streams. Provide a map of at least 1:12,000 scale showing all delineated resources.

(c) Provide the results of a literature survey of the plant and animal life within at least one-fourth mile of the project area boundary. The literature survey shall include aquatic and terrestrial plant and animal species that are of commercial or recreational value, or species designated as endangered or threatened.

(d) Conduct and provide the results of field surveys of the plant and animal species identified in the literature survey.

(e) Provide a summary of any additional studies which have been made by or for the applicant addressing the ecological impact of the proposed facility

(2) Ecological impacts. The applicant shall provide information regarding potential impacts to ecological resources during construction.

(a) Provide an evaluation of the impact of construction on the resources surveyed in response to paragraph (B)(1) of this rule. Include the linear feet and acreage impacted, and the proposed crossing methodology of each stream and wetland that would be crossed by or within the footprint of any part of the facility or construction equipment. Specify the extent of vegetation clearing, and describe how such clearing work will be done so as to minimize removal of woody vegetation. Describe potential impacts to wildlife and their habitat.

(b) Describe the mitigation procedures to be utilized to minimize both the short-term and long-term impacts due to construction, including the following:

(i) Plans for post-construction site restoration and stabilization of disturbed soils, especially in riparian areas and near wetlands. Restoration plans should include details on the removal and disposal of materials used for temporary access roads and construction staging areas, including gravel.

(ii) A detailed frac out contingency plan for stream and wetland crossings that are expected to be completed via horizontal directional drilling.

(iii) Methods to demarcate surface waters and wetlands and to protect them from entry of construction equipment and material storage or disposal.

(iv) Procedures for inspection and repair of erosion control measures, especially after rainfall events.

(v) Methods to protect vegetation in proximity to any project facilities from damage, particularly mature trees, wetland vegetation, and woody vegetation in riparian areas.

(vi) Options for disposing of downed trees, brush, and other vegetation during initial clearing for the project, and clearing methods that minimize the movement of heavy equipment and other vehicles within the project area that would otherwise be required for removing all trees and other woody debris off site.

(vii) Avoidance measures for state of federally listed and protected species and their habitat, in accordance with paragraph (D) of rule 4906-4-09 of the Administrative Code.

(3) Operational ecological impacts. The applicant shall provide information regarding potential impacts to ecological resources during operation and maintenance of the facility.

(a) Provide an evaluation of the impact of operation and maintenance on the undeveloped areas shown in response to paragraph (B)(1) of this rule.

(b) Describe the procedures to be utilized to avoid, minimize, and mitigate both the short- and long-term impacts of operation and maintenance. Describe methods for protecting streams, wetlands, and vegetation, particularly mature trees, wetland vegetation, and woody vegetation in riparian areas. Include a description of any expected use of herbicides for maintenance.

(c) Describe any plans for post-construction monitoring of wildlife impacts.

(C) The applicant shall provide information on land use and community development.

(1) Existing land use. The applicant shall provide information regarding land use in the region and potential impacts of the facility through the following maps and related information.

(a) Provide a map of at least 1:24,000 scale showing the following within one-mile of the project area boundary:

(i) The proposed facility.

(ii) Land use, depicted as areas on the map. Land use, for the purposes of paragraph (C) of this rule, refers to the current economic use of each parcel. Categories should include residential, commercial, industrial, institutional, recreational, agricultural, and vacant, or as classified by the local land use authority.

(iii) Structures, depicted as points on the map. Identified structures should include residences, commercial centers or buildings, industrial buildings and installations, schools, hospitals, churches, civic buildings, and other occupied places.

(iv) Incorporated areas and population centers.

(b) Provide, for the types of structures identified on the map in paragraph (C)(1)(a) of this rule, a table showing the following:

(i) For all structures and property lines within one thousand five hundred feet of the generation equipment or wind turbine, the distance between both the structure or property line and the equipment or nearest wind turbine.

(ii) For all structures and property lines within two hundred fifty feet of a collection line, access road, or other associated facility, the distance between both the structure or property line and the associated facility.

(iii) For each structure and property in the table, whether the property is being leased by the

applicant for the proposed facility.

(c) Provide an evaluation of the impact of the proposed facility on the above land uses identified on the map in paragraph (C)(1)(a) of this rule. Include, for each land use type, the construction impact area and the permanent impact area in acres, in total and for each project component (e.g., turbines, collection lines, access roads), and the explanation of how such estimate was calculated.

(d) Identify structures that will be removed or relocated.

(2) Wind farm maps. For wind farms only, the applicant shall provide a map(s) of at least 1:24,000 scale showing the proposed facility, habitable residences, and parcel boundaries of all parcels within a half-mile of the project area. Indicate on the map, for each parcel, the parcel number and whether the parcel is being leased by the applicant for the proposed facility, as of no more than thirty days prior to the submission of the application. Include on the map the setbacks for wind turbine structures in relation to property lines, habitable residential structures, electric transmission lines, gas pipelines, gas distribution lines, hazardous liquid(s) pipelines, and state and federal highways, consistent with no less than the following minimum requirements:

(a) The distance from a wind turbine base to the property line of the wind farm property shall be at least one and one-tenth times the total height of the turbine structure as measured from its tower's base (excluding the subsurface foundation) to the tip of a blade at its highest point.

(b) The wind turbine shall be at least one thousand, one hundred, twenty-five feet in horizontal distance from the tip of the turbine's nearest blade at ninety degrees to the property line of the nearest adjacent property, including a state or federal highway, at the time of the certification application.

(c) The distance from a wind turbine base to any electric transmission line, gas pipeline, gas distribution line, hazardous liquid(s) pipeline, or public road shall be at least one and one-tenth times the total height of the turbine structure as measured from its tower's base (excluding the subsurface foundation) to the tip of a blade at its highest point.

(d) Minimum setbacks from property lines and residences may be waived pursuant to the procedures set forth in paragraph (C)(3) of this rule.

(3) Setback waivers. The setback shall apply in all cases except those in which all owner(s) of property adjacent to the wind farm property waive application of the setback to that property. The waiver(s) must meet the following requirements:

(a) Content of waiver. The waiver shall:

(i) Be in writing;

(ii) Provide a brief description of the facility;

(iii) Notify the applicable property owner(s) of the statutory minimum setback requirements;

(iv) Describe the adjacent property subject to the waiver through a-legal description;

(v) Describe how the adjacent property is subject to the statutory minimum setback requirements; and

(vi) Advise all subsequent purchasers of the adjacent property subject to the waiver that the waiver of the minimum setback requirements shall run with the land.

(b) Required signature. The waiver shall be signed by the applicant and the applicable property owner(s), indicating consent to construction activities without compliance with the minimum setback requirements.

(c) Recordation of waiver. The waiver shall be recorded in the county recorder's office where the property that is the subject of the waiver is located.

(4) Land use plans. The applicant shall provide information regarding land use plans.

(a) Describe formally adopted plans for future use of the project area and surrounding lands for anything other than the proposed facility.

(b) Describe the applicant's plans for concurrent or secondary uses of the site.

(c) Describe the impact of the proposed facility on regional development, including housing, commercial and industrial development, schools, transportation system development, and other public services and facilities.

(d) Assess the compatibility of the proposed facility and the anticipated resultant regional development with current regional plans.

(e) Provide current population counts or estimates, current population density, and ten-year population projections for counties and populated places within five miles of the project area.

(D) The applicant shall provide information on cultural and archaeological resources

(1) Landmark mapping. The applicant shall indicate, on a map of at least 1:24,000 scale, any formally adopted land and water recreation areas, recreational trails, scenic rivers, scenic routes or byways, and registered landmarks of historic, religious, archaeological, scenic, natural, or other cultural significance within ten miles of the project area. Landmarks to be considered for purposes of paragraph (D) of this rule are those districts, sites, buildings, structures, and objects that are recognized by, registered with, or identified as eligible for registration by the national registry of natural landmarks, the state historical preservation office, or the Ohio department of natural resources.

(2) Impacts on landmarks. The applicant shall provide an evaluation of the impact of the proposed facility on the preservation and continued meaningfulness of these landmarks and describe plans to avoid or mitigate any adverse impact.

(3) Recreation and scenic areas. The applicant shall describe the identified recreation and scenic areas within ten miles of the project area in terms of their proximity to population centers, uniqueness, topography, vegetation, hydrology, and wildlife. Provide an evaluation of the impact of the proposed facility on identified recreational and scenic areas within ten miles of the project area and describe plans to mitigate any adverse impact.

(4) Visual impact of facility. The applicant shall evaluate the visual impact of the proposed facility within at least a ten-mile radius from the project area. The evaluation shall be conducted or reviewed by a licensed landscape architect of other professional with experience in developing a visual impact assessment. The applicant shall:

(a) Describe the visibility of the project, including a viewshed analysis and area of visual effect, shown on a corresponding map of the study area. The viewshed analysis shall not incorporate deciduous vegetation, agricultural crops, or other seasonal land cover as viewing obstacles. If the viewshed analysis includes atmospheric conditions, it shall incorporate the atmospheric conditions under which the facility would be most visible.

(b) Describe the existing landscape and evaluate its scenic quality. This description shall include documentation of a review of existing plans, policies, and regulations of the communities within the study area, and list all references to identified visual resources or other indications of the visual preferences of the community.

(c) Describe the alterations to the landscape caused by the facility, including a description and illustration of the scale, form, and materials of all facility structures, and evaluate the impact of those alterations to the scenic quality of the landscape.

(d) Evaluate the visual impacts to the resources identified in paragraph (D) of this rule, and any such resources within ten miles of the project area that are valued specifically for their scenic quality.

(e) Provide photographic simulations or artist's pictorial sketches of the proposed facility from public vantage points that cover the range of landscapes, viewer groups, and types of scenic resources found within the study area. The applicant should explain its selection of vantage points, including any coordination with local residents, public officials, and historic preservation groups in selecting these vantage points.

(f) Describe measures that will be taken to minimize any adverse visual impacts created by the facility, including, but not limited to, project area location, lighting, turbine layout, visual screening, and facility coloration. In no event shall these measures conflict with relevant safety requirements.

(E) The applicant shall provide information regarding agricultural districts and potential impacts to agricultural land.

(1) Mapping of agricultural land. The applicant shall identify on a map of at least 1:24,000 scale the proposed facility, all agricultural land, and separately all agricultural district land existing at least sixty days prior to submission of the application located within the project area boundaries. Where available, distinguish between agricultural uses such as cultivated lands, permanent pasture land, managed woodlots, orchards, nurseries, livestock and poultry confinement areas, and agriculturally related structures.

(2) Agricultural information. The applicant shall provide, for all agricultural land, and separately for agricultural uses and agricultural districts identified under paragraph (E)(1) of this rule, the following:

(a) A quantification of the acreage impacted.

(b) An evaluation of the impact of the construction, operation, and maintenance of the proposed facility on the land and the following agricultural facilities and practices within the project area:

(i) Field operations such as plowing, planting, cultivating, spraying, aerial applications, harvesting.

(ii) Irrigation.

(iii) Field drainage systems.

(iv) Structures used for agricultural operations.

(v) The viability as agricultural district land of any land so identified.

(c) A description of mitigation procedures to be utilized by the applicant during construction, operation, and maintenance to reduce impacts to agricultural land, structures, and practices. The description shall illustrate how avoidance and mitigation procedures will achieve the following:

(i) Avoidance or minimization to the maximum extent practicable of any damage to field tile drainage systems and soils in agricultural areas.

(ii) Timely repair of damaged field tile systems to at least original conditions, at the applicant's expense.

(iii) Segregation of excavated topsoil, and decompaction and restoration of all topsoil to original conditions unless otherwise agreed to by the landowner.