

STATE OF NORTH DAKOTA
PUBLIC SERVICE COMMISSION

Public Service Commission
Siting
Rulemaking

Case No. PU-17-339

ARTICLE 69-06
ENERGY CONVERSION AND TRANSMISSION FACILITY SITING

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69-06-08-01. Energy conversion facility siting criteria.

The following criteria must guide and govern the preparation of the inventory of exclusion and avoidance areas, and the site suitability evaluation process.

1. **Exclusion areas.** The following geographical areas must be excluded in the consideration of a site for an energy conversion facility.
 - a. Designated or registered national: parks; memorial parks; historic sites and landmarks; natural landmarks; historic districts; monuments; wilderness areas; wildlife areas; wild, scenic, or recreational rivers; wildlife refuges; and grasslands.
 - b. Designated or registered state: parks; forests; forest management lands; historic sites; monuments; historical markers; archaeological sites; grasslands; wild, scenic, or recreational rivers; game refuges; game management areas; management areas; and nature preserves.
 - c. County parks and recreational areas; municipal parks; parks owned or administered by other governmental subdivisions; hardwood draws; and enrolled woodlands.

- d. Prime farmland and unique farmland, as defined by the land inventory and monitoring division of the soil conservation service, United States department of agriculture, in 7 C.F.R. part 657; provided, however, that if the commission finds that the prime farmland and unique farmland that will be removed from use for the life of the facility is of such small acreage as to be of negligible impact on agricultural productions, this exclusion does not apply.
- e. Irrigated land.
- f. Areas critical to the life stages of threatened or endangered animal or plant species.
- g. Areas where animal or plant species that are unique or rare to this state would be irreversibly damaged.
- h. Areas within one thousand two hundred feet of the geographic center of an intercontinental ballistic missile (ICBM) launch or launch control facility.

2. **Additional exclusion areas for wind energy conversion facilities.** The following geographical areas must be excluded in the consideration of a site for a wind energy conversion facility:

- a. Areas ~~less than~~ within:
 - (1) One and one-tenth times the height of the turbine from interstate or state roadway right of way;
 - (2) One and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway;
 - (3) One and one-tenth times the height of the turbine from any railroad right of way;
 - (4) One and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and
 - (5) One and one-tenth times the height of the turbine from the property line of a nonparticipating landowner and three times the height of the turbine from an inhabited rural residence of a nonparticipating landowner, unless a variance is granted. A variance may be granted if an authorized representative or agent of the permittee, the nonparticipating landowner, and affected parties with associated wind rights file a written agreement

expressing all parties' support for a variance to reduce the setback requirement in this subsection. A nonparticipating landowner is a landowner that has not signed a wind option or an easement agreement with the permittee of the wind energy conversion facility as defined in North Dakota Century Code chapter 17-04.

3. **Avoidance areas.** The following geographical areas may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances there is no reasonable alternative. In determining whether an avoidance area should be designated for a facility the commission may consider, among other things, the proposed management of adverse impacts; the orderly siting of facilities; system reliability and integrity; the efficient use of resources; and alternative sites. Economic considerations alone will not justify approval of these areas. A buffer zone of a reasonable width to protect the integrity of the area must be included. Natural screening may be considered in determining the width of the buffer zone.
 - a. Historical resources which are not designated as exclusion areas.
 - b. Areas within the city limits of a city or the boundaries of a military installation.
 - c. Areas within known floodplains as defined by the geographical boundaries of the hundred-year flood.
 - d. Areas that are geologically unstable.
 - e. Woodlands and wetlands.
 - f. Areas of recreational significance which are not designated as exclusion areas.
4. **Additional avoidance areas for wind energy conversion facilities.** A wind energy conversion facility site must not include a geographic area where, due to operation of the facility, the sound levels within one hundred feet of an inhabited residence or a community building will exceed fifty dBA. The sound level avoidance area criteria may be waived in writing by the owner of the occupied residence or the community building.
5. **Selection criteria.** A site may be approved in an area only when it is demonstrated to the commission by the applicant that any significant adverse effects resulting from the location, construction, and operation of the facility in that area as they relate to the following, will be at an acceptable minimum, or that those effects will be managed and maintained at an acceptable minimum. The effects to be considered include:
 - a. The impact upon agriculture:

- (1) Agricultural production.
 - (2) Family farms and ranches.
 - (3) Land which the owner demonstrates has soil, topography, drainage, and an available water supply that cause the land to be economically suitable for irrigation.
 - (4) Surface drainage patterns and ground water flow patterns.
 - (5) The agricultural quality of the cropland.
- b. The impact upon the availability and adequacy of:
- (1) Law enforcement.
 - (2) School systems and education programs.
 - (3) Governmental services and facilities.
 - (4) General and mental health care facilities.
 - (5) Recreational programs and facilities.
 - (6) Transportation facilities and networks.
 - (7) Retail service facilities.
 - (8) Utility services.
- c. The impact upon:
- (1) Local institutions.
 - (2) Noise-sensitive land uses.
 - (3) Light-sensitive land uses.
 - (4) Rural residences and businesses.
 - (5) Aquifers.
 - (6) Human health and safety.
 - (7) Animal health and safety.
 - (8) Plant life.

- (9) Temporary and permanent housing.
 - (10) Temporary and permanent skilled and unskilled labor.
- d. The cumulative effects of the location of the facility in relation to existing and planned facilities and other industrial development.
6. **Policy criteria.** The commission may give preference to an applicant that will maximize benefits that result from the adoption of the following policies and practices, and in a proper case may require the adoption of such policies and practices. The commission may also give preference to an applicant that will maximize interstate benefits. The benefits to be considered include:
- a. Recycling of the conversion byproducts and effluents.
 - b. Energy conservation through location, process, and design.
 - c. Training and utilization of available labor in this state for the general and specialized skills required.
 - d. Use of a primary energy source or raw material located within the state.
 - e. Not relocating residents.
 - f. The dedication of an area adjacent to the facility to land uses such as recreation, agriculture, or wildlife management.
 - g. Economies of construction and operation.
 - h. Secondary uses of appropriate associated facilities for recreation and the enhancement of wildlife.
 - i. Use of citizen coordinating committees.
 - j. A commitment of a portion of the energy produced for use in this state.
 - k. Labor relations.
 - l. The coordination of facilities.
 - m. Monitoring of impacts.
 - n. A commitment to install lighting mitigation technology for wind energy conversion facilities subject to commercial availability and federal aviation administration approval.

History: Amended effective August 1, 1979; July 1, 2006; April 1, 2013; July 1, 2017; _____.

General Authority: NDCC 49-22-18

Law Implemented: NDCC 49-22-05.1

CHAPTER 69-06-11

Wind Energy Conversion Facility Lighting Systems

Section

69-06-11-01 Definitions

69-06-11-02 Implementation

69-06-11-03 Service, Maintenance, Safety, and Lighting System Standards

69-06-11-01. Definitions.

In this chapter:

- 1. "Aircraft Detection Lighting System" means a sensor-based system designed to detect aircraft as they approach a wind energy conversion facility; this system automatically activates obstruction lights until they are no longer needed.**
- 2. "Commission" means the public service commission.**
- 3. "Light Intensity Dimming Solution Technology" means obstruction lighting that provides a means of tailoring the intensity level of lights according to surrounding visibility.**
- 4. "Light-Mitigating Technology System" means aircraft detection lighting system, lighting intensity dimming solution technology, or a comparable solution capable of reducing the impact of nighttime lighting while maintaining night conspicuity sufficient to assist aircraft in identifying and avoiding collision with the facilities.**
- 5. "Owner" means a person who holds a certificate of site compatibility pursuant to North Dakota Century Code chapter 49-22.**
- 6. "Wind Energy Conversion Facility" means any plant, addition, or combination of plant and addition, designed for or capable of generation by wind energy conversion exceeding one-half megawatt of electricity.**

69-06-11-02. Implementation.

- 1. A wind energy conversion facility for which a certificate of site compatibility was issued after June 5, 2016 must be equipped with a functioning light-mitigating technology in compliance with this chapter by December 31, 2019.**

2. A wind energy conversion facility for which a certificate of site compatibility was issued before June 5, 2016 must be equipped with a functioning light-mitigation technology in compliance with this chapter by December 31, 2021. The Commission may grant an extension of time based on technical or economic feasibility considerations.
3. The commission may grant a waiver of this chapter for a wind energy conversion facility designed for or capable of generating no more than five megawatts of electricity upon a motion demonstrating good cause for the waiver.
4. To allow proper conspicuity of a turbine at night during construction, a turbine may be lighted with temporary lighting until the permanent lighting configuration including the light mitigation technology is implemented.
5. Owner shall provide written notice to the commission upon implementation of light-mitigating technology in compliance with this chapter.
6. Owner is solely responsible for any costs associated with the implementation, operation, and maintenance of each light-mitigating technology system.
7. An extension request must be in writing and contain:
 - a. The purpose of the extension;
 - b. A description of the light-mitigating technologies submitted to the Federal Aviation Administration;
 - c. The technical or economic inability to implement light-mitigation technology systems;
 - d. The length of extension requested; and
 - e. Any other information requested by the commission.

69-06-11-03. Service, Maintenance, Safety, and Lighting System Standards.

Each light-mitigating technology system must be installed, operated, and maintained in accordance with United States Department of Transportation Federal Aviation Administration regulations [14 CFR 1.1. et. Seq] in effect as of [date of publishing rules] and receive Federal Aviation Administration approval prior to implementation.

History: Amended Effective 2017.
General Authority: NDCC 49-22-18
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