

ENERGY PROJECT SITING CRITERIA – WIND APPLICATION REQUIREMENTS

Straw Proposal for Discussion Purposes

The following are draft proposed criteria for energy project applications, presented solely as a straw proposal for discussion:

I. Application Submittal Requirements

- (1) Visual Impacts. All applicants for a certificate shall submit a visual impact analysis (VIA) report for the proposed wind energy system that includes the following elements:
 - (a) the VIA shall identify all parts of the landscape within at least 10 miles of the facility that would be potentially visible, based on both bare ground conditions, with topographic screening only, and with consideration of screening by vegetation or other factors;
 - (b) the VIA shall identify all specific areas, sites or features of human use within at least a 10 mile radius from which the facility would be potentially visible, including any scenic viewpoints, town or village centers, residential areas, public roads and recreational areas;
 - (a) with respect to any scenic view point from which the facility would be potentially visible, the VIA shall categorize the individual and cumulative visual impacts as high, medium or low based on the following criteria: [CRITERIA TO BE SPECIFIED];
 - (b) the VIA shall include visual simulations of the facility from all scenic viewpoints identified in the VIA from which any part of the facility would be potentially visible;
 - (c) visual simulations shall represent conditions of maximum visibility on a clear day with a sun angle providing maximum illumination of the facility as seen from the specific viewpoint.
- (2) Noise Evaluation. All applicants for a certificate shall submit a noise evaluation report for the proposed wind energy system that includes the following elements:
 - (a) a detailed description of the potential noise levels that would be generated by the proposed wind turbines at the proposed facility site, including existing sound levels at the proposed site, projected sound levels to be generated by the operation of the proposed wind turbines, the methodology used to monitor and evaluate sound levels, and the wind turbine manufacturer's technical documentation of the noise emission characteristics of the proposed wind turbines;

- (b) calculations of projected maximum cumulative sound levels generated when the proposed wind turbines are in operation at the proposed facility site measured at the property lines, projected maximum day-time and night-time sound levels generated when the proposed wind turbines are in operation measured at the nearest receptors, and projected maximum levels of infrasonic sound, ultrasonic sound, impulsive noise and prominent discrete tones generated when the proposed wind turbines and any alternative wind turbines are in operation at the proposed facility site measured at the nearest receptors;
 - (c) a study area map for the proposed facility site depicting the noise analysis study area radius, site boundaries, sound level monitoring locations and nearest receptor locations; and
 - (d) identification of any potential mitigation measures to minimize sound levels at the nearest receptor locations, including utilization of best practical noise control measures.
- (3) Shadow Flicker Evaluation. All applicants for a certificate shall submit a shadow flicker evaluation report for the proposed wind energy system that includes the following elements:
- (a) A detailed description of the potential shadow flicker-producing features of each of the proposed wind turbines at the proposed facility site, including an analysis of conditions that may cause shadow flicker, the methodology used to evaluate shadow flicker and the manufacturer's technical documentation relating to shadow flicker;
 - (b) calculations from each proposed wind turbine at the proposed facility site to each off-site occupied structure location within a [] mile radius, including the following:
 - (i) distance in feet;
 - (ii) shadow length and intensity;
 - (iii) shadow flicker frequency;
 - (iv) specific times shadow flicker is predicted to occur; and
 - (v) duration of shadow flicker measured in total annual and daily hours;
 - (c) a study area map of the proposed facility site depicting the shadow flicker analysis study area radius, site boundaries, locations of the proposed wind turbines, locations of off-site occupied structures, and areas of shadow flicker occurrence identified according to total annual and daily hours; and
 - (d) identification of potential mitigation measures to minimize the impacts of shadow flicker, including vegetation, screening and fence construction.
- (4) Natural Resource Impacts. All applicants for a certificate shall submit a natural resource impact evaluation report for the proposed facility site that includes bird studies, bat studies, wetland studies, and terrestrial and marine wildlife habitat studies, and shall also include the following elements:
- (a) a detailed description of the potential natural resource impacts as a result of the construction, operation and maintenance of the proposed wind turbines at the proposed facility site, including analysis of:

- (i) the topography, geology, vegetation, soil types, water resources, and avian, terrestrial and marine wildlife habitat areas;
 - (ii) compliance with air and water quality standards of the Department of Environmental Services;
 - (iii) compliance with the United States Fish and Wildlife Service Land-Based Wind Energy Guidelines, as applicable; and
 - (iv) compliance with any site-specific recommendations by the Department of Environmental Services;
- (b) calculations based on the studies submitted in accordance with this subsection for the proposed facility site, including the following:
- (i) estimated number of bird fatalities;
 - (ii) estimated number of bat fatalities;
 - (iii) total square feet of temporary and permanent wetland impacts;
 - (iv) total square feet of temporary and permanent terrestrial and marine wildlife habitat impacts;
 - (v) total acreage of site disturbance;
 - (vi) total acreage of site restoration;
 - (vii) total volume in cubic yards of cut required; and
 - (viii) total volume in cubic yards of fill required;
- (c) a study area map for the proposed facility site depicting the natural resource impact analysis study area radius, site boundaries and locations of any important bird areas, bat hibernacula, terrestrial and marine wildlife habitat, flood zones, wetlands and watercourses, forests, recreational areas, open space and conservation areas; and
- (d) identification of potential mitigation measures to minimize natural resource impacts, including recommended protocols for protection of wetlands and wildlife, proposed open space or conservation areas, minimization of tree-clearing, erosion and sedimentation controls, soil stabilization, re-vegetation and post-construction monitoring plans for avian, terrestrial and marine wildlife populations and habitat.
- (5) Additional Studies and Reports. All applicants for a certificate shall submit [ADDITIONAL STUDIES AND REPORTS TO BE SPECIFIED].