

WIND FACILITY SITING IN NORTH DAKOTA

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ABSTRACT

North Dakota ranks fifth in the nation in the share of electricity generation that is produced by wind energy, and it has seen a rapid growth in wind-powered electricity generation over the past year.¹ While development continues at record rates, North Dakota still has substantial undeveloped wind energy potential.² With increased wind development comes increased focus on regulation and the resulting complexities. This Article provides an overview of North Dakota's regulatory siting process for wind energy conversion facilities.

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1. *North Dakota State Profile Analysis*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/state/analysis.php?sid=ND#77> (last updated Mar. 16, 2017).

2. *Id.*

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I. INTRODUCTION

The North Dakota Public Service Commission (“NDPSC”) is the primary authority regulating the permitting of wind facilities’ location, construction, and operation within the state.³ North Dakota statute requires that an electric energy conversion facility, comprised of “any plant, addition, or combination of plant and addition, designed for or capable of generation of wind energy exceeding one-half megawatt of electricity”⁴ obtain a certificate of site compatibility from the NDPSC before it is located, constructed, or operated within the state.⁵ It is North Dakota’s siting policy to ensure that

3. *See generally*, N.D. CENT. CODE ch. 49-22.

4. N.D. CENT. CODE § 49-22-03(5)(a) (2017) (as amended by S.B. 2286, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

5. N.D. CENT. CODE § 49-22-02 (2016).

energy conversion facilities produce minimal adverse impacts on the environment and on the welfare of North Dakota citizens.⁶

“North Dakota has abundant wind resources and ranked 9th in the nation in wind energy potential, 10th in utility-scale generation, and 11th in installed capacity in 2016.”⁷ Since 2008, North Dakota has seen the addition of over 2100 megawatts of installed wind power capacity within the state.⁸ In 2013, the state had 1681 megawatts of installed wind power capacity, and by the first quarter of 2017, that number rose to 2846 megawatts, an increase of fifty-nine percent.⁹ The growth of wind facility development has accelerated. As of February 2017, of the roughly 3000 megawatts of wind generation that went online over the past decade, 1000 megawatts were completed in a ten-month span.¹⁰ North Dakota has already surpassed the United States Department of Energy’s predictions for installed wind power capacity for 2020, and it is estimated installed wind power capacity could reach 4710 megawatts in 2030, and upwards of 5910 megawatts in 2050.¹¹ As development continues, so does increased regulatory oversight.

II. SITING AUTHORITY

In 1975, the 44th North Dakota Legislative Assembly adopted Senate Bill 2050, which created and enacted N.D.C.C. ch. 49-22, the “Siting Act,”¹² and granted the NDPSC siting authority over electric, gas, and liquid energy conversion and transmission facilities.¹³ In 2017, the 65th Legislative Assembly split the Siting Act.¹⁴ A separate statutory chapter was created and enacted governing regulations specific to the siting of gas and liquid energy conversion and transmission facilities.¹⁵

6. *Id.*

7. *North Dakota State Profile Overview*, U.S. ENERGY INFO. ADMIN., <https://www.eia.gov/state/?sid=ND> (last updated Mar. 16, 2017).

8. *Installed Wind Capacity*, WINDEXCHANGE, U.S. DEPT. OF ENERGY, ENERGY EFFICIENCY & RENEWABLE ENERGY, https://apps2.eere.energy.gov/wind/windexchange/wind_installed_capacity.asp (last updated Sept. 29, 2016) (installed wind capacity refers to the maximum potential output from wind power given the number of installations).

9. *Id.* (from 2013 to 2016, the nation’s total installed capacity rose from 61,108 megawatts to 82,171 megawatts).

10. April Baumgarten, *Wind Energy Sector Sees Massive Expansion in North Dakota*, THE BISMARCK TRIBUNE (Feb. 12, 2017), http://bismarcktribune.com/news/state-and-regional/wind-energy-sector-sees-massive-expansion-in-north-dakota/article_b29c4e50-f8be-5399-ad46-5ee3811c8965.html.

11. *Map: Projected Growth of the Wind Industry From Now Until 2015*, DEPT. OF ENERGY, <https://energy.gov/maps/map-projected-growth-wind-industry-now-until-2050> (last accessed July 1, 2017).

12. Energy Conversion and Transmission Facility Siting Act, N.D. CENT. CODE ch. 49-22.

13. 1975 N.D. Sess. Laws 1199, 1200-1201.

14. *See* N.D. CENT. CODE ch. 49-22.1; H.R. 1144, 65th Gen. Assemb., Reg. Sess. (N.D. 2017).

15. *Id.*

Since its enactment, the Siting Act has been amended numerous times, altering megawatt thresholds that trigger NDPSC siting jurisdiction. As originally enacted, an energy conversion facility designed for or capable of producing fifty megawatts was subject to NDPSC jurisdiction.¹⁶ In 2005, the threshold was amended and increased to include generation of one hundred megawatts or more,¹⁷ and in 2009 it was subsequently lowered to extend jurisdiction over only those generation sources exceeding sixty megawatts.¹⁸ In 2011, concern was expressed that wind energy conversion facilities developed just under the regulatory threshold could bypass the siting process, and legislation was enacted to extend NDPSC jurisdiction over wind generation in excess of one-half megawatt.¹⁹

III. JURISDICTION

Approaches to wind facility siting vary across the nation. In some states, siting authority resides solely in state agencies, such as public utility commissions and siting councils.²⁰ In other states, jurisdiction resides entirely within local governments, or it may be comprised of a variation of the two approaches.²¹ In North Dakota, the sole requirement for wind energy conversion facility development is obtaining a certificate of site compatibility from the NDPSC, however, a utility²² is still required to comply with applicable local zoning and land-use regulations.²³ A utility may not begin construction of an electric energy conversion facility without first having obtained a certificate of site compatibility pursuant to the Siting Act²⁴ and a state-issued certificate of site compatibility cannot “supersede or pre-empt regulation of any local land use, zoning, or building rules, regulations, or ordinances and no site shall be designated which violates local land use, zoning,

16. *Id.* at § 3.

17. 2005 N.D. Laws 1607.

18. 2009 N.D. Laws 8.

19. Senate Bill 2196: Hearing on S.B. 2196 Before the S. Natural Res. Comm., Leg., 62nd Sess. (N.D. 2011) (statement of Sen. Richard Wardner, Member, S. Natural Res. Comm.); S.B. 2196, 62nd Leg. Assemb., Reg. Sess. (N.D. 2011).

20. Jesse Heibel and Jocelyn Durkay, *State Approaches to Wind Energy Facility Siting*, NAT'L CONF. OF STATE LEGIS. (Nov. 1, 2016), <http://www.ncsl.org/research/energy/state-wind-energy-siting.aspx>.

21. *Id.*

22. See N.D. CENT. CODE § 49-22-03(14) (Pursuant to ch. 49-22, a “utility” is defined as “any person engaged in and controlling the electrical generation, the transmission of electric energy, or the transmission of water from or to any electric energy conversion facility.”).

23. See N.D. CENT. CODE §§ 49-22-16(1), 49-22-16(2)(a) (2017) (as amended by S.B. 2286, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

24. N.D. CENT. CODE § 49-22-07(2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

or building rules, regulations, or ordinances.”²⁵ For example, project applicants are required to comply with a political subdivision’s zoning ordinances, conditional use permit requirements, building permit requirements, and road-use agreements.

The NDPSC’s rules and regulations governing siting criteria and regulations set the baseline for restrictions that will be applied to a proposed wind facility. The more restrictive of either the NDPSC or local regulation will apply.²⁶ Utilities subject to the Siting Act must also obtain any state permits required from other agencies, and the NDPSC is not permitted to designate a site in violation of the rules of another state agency.²⁷

Federal regulations are applicable to wind facility siting when a federal nexus exists.²⁸ Facilities located on private or state-owned land may trigger a federal approval process if there is the potential for impacting resources such as wildlife, water, or aviation.²⁹ In instances where a federal nexus is triggered, the NDPSC has required applicants to demonstrate compliance with federal regulations, or has conditioned the issuance of an order on such compliance.³⁰

IV. WIND FACILITY PROJECT OVERVIEW

Wind projects vary in size, but typical modern wind energy facilities consist of individual wind turbines, an electrical collection system, transmission/interconnection facilities, and ancillary components, such as access

25. N.D. CENT. CODE §§ 49-22-16(1) (2017), 49-22-16(2)(a) (2017) (as amended by S.B. 2286, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

26. N.D. CENT. CODE § 49-22-16(2)(a) (2017) (as amended by S.B. 2286, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)) (the statute’s language is somewhat ambiguous and could be interpreted as barring the NDPSC from superseding and imposing regulations more restrictive than local zoning or land-use regulations, however, in practice, the NDPSC’s regulations establish minimum requirements for which projects must meet).

27. N.D. CENT. CODE § 49-22-16(3)-(4) (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

28. A federal nexus may be triggered in instances where a project involves federal funding, use of federal lands, federal permitting, or approvals. For a more detailed explanation on when federal nexus applies, *see* AM. WIND ENERGY ASS’N, SITING HANDBOOK 4-2 (Feb. 2008), [hereinafter AWEA SITING HANDBOOK], http://awea.files.cms-plus.com/AWEA_Siting_Handbook_Feb2008.pdf.

29. *Id.*

30. *See e.g.*, Findings of Fact, Conclusions of Law and Order, Oliver III Wind Energy Center – Oliver & Morton Siting Application (No. PU-16-123), 2016 WL 3476952 (order provision requiring that Determinations of No Hazard issued by the Federal Aviation Administration (notices indicating turbine locations present no hazard to aviation) be filed with the NDPSC prior to commencement of construction).

roads, meteorological towers,³¹ and depending on the projects size, an operation and maintenance facility.³² “Power generated by each wind turbine is transferred to a transformer located within the [tower itself] or adjacent to the base of the turbine to raise the voltage of electricity produced by the turbine generator to the level of the collection system.”³³ The collection system is comprised of underground and overhead cables that transport the electricity to a collection substation and point of interconnection switchyard.³⁴ These facilities then transfer the electricity generated by the wind facility to the regional power grid.³⁵

A wind energy conversion facility and associated electric transmission facility may comprise a single project footprint, however, each facility must file a separate application and obtain individual permits from the NDPSC.³⁶ A wind energy conversion facility is required to obtain a certificate of site compatibility, while an electric transmission facility is required to obtain a certificate of corridor compatibility and route permit.³⁷ The NDPSC will either hold separate hearings for each of the electric generation and transmission components, or the matters will be consolidated for hearing.³⁸ This Article focuses on the siting of wind energy conversion facilities, although, the general siting process and siting criteria for electric transmission facilities are similar.

V. SITING CRITERIA

Wind facility siting is primarily regulated by statute in the Energy Conversion and Transmission Facility Siting Act, N.D.C.C. ch. 49-22, and through administrative rules, N.D. Admin. Code art. 69-06. The NDPSC’s regulations and rules contain criteria that govern wind facility exclusion and

31. Wind measurement systems equipped with sensors to measure wind speed and direction, temperature and pressure. AWEA SITING HANDBOOK, *supra* note 28, at 8-3.

32. *Id.* at 2-5.

33. *Id.*

34. *Id.*

35. *Id.* at 2-6 - 2-7.

36. N.D. CENT. CODE §§ 49-22-08 (2017), 49-22.1-06, 07 (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

37. *Id.*

38. *Compare* Notice of Filing and Public Hearing, Brady Wind, LLC Brady Wind Energy Center (No. PU-15-690), 2016 WL 816440, *and* Notice of Filing and Public Hearing, Brady Wind, LLC 230 kV Transmission Line (No. PU-15-797), 2016 WL 816440 (notice indicating separate hearings for the wind energy conversion facility and electrical transmission permit applications), *with* Notice of Filings and Consolidated Hearing, Oliver Wind III, LLC 230 kV Transmission Line (Nos. PU-16-122, PU-16-123), 2016 WL 3476952 (consolidating wind energy conversion facility and electric transmission permit applications for hearing).

avoidance areas, as well as policies and practices that may be considered in the evaluation and designation process of a proposed wind facility.³⁹

A. EXCLUSION AND AVOIDANCE AREAS

Exclusion areas are geographical areas that must be excluded from the consideration of a site for an energy conversion facility.⁴⁰ Examples of exclusion areas include designated or registered national and/or state natural resource, cultural and historic areas, prime and unique farmland, areas critical to endangered species, and various setback requirements.⁴¹ It is no surprise that regulators and the public are concerned with impacts siting will have on natural resources and wildlife, however, setback requirements that establish the basis for some exclusion areas have caused increased conflict between local governing bodies and the public in recent years. The NDPSC has established setbacks through administrative rule that are specific to wind energy conversion facilities, and include the following:

one and one-tenth times the height of a turbine from an interstate or state roadway right-of-way; one and one-tenth times the height of the turbine plus seventy-five feet from the centerline of any county or maintained township roadway; one and one-tenth times the height of the turbine from any railroad right-of-way; one and one-tenth times the height of the turbine from a one hundred fifteen kilovolt or higher transmission line; and one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner,⁴² unless a variance is granted.⁴³

The NDPSC has adopted a general standard of requiring all wind turbines to be located at least fourteen hundred feet from an occupied residence, although, this standard is not codified in statute or administrative rule.⁴⁴

39. N.D. CENT. CODE § 49-22-05.1 (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)); N.D. ADMIN. CODE ch. 69-06-08.

40. N.D. ADMIN. CODE § 69-06-08-01(1),(2).

41. *See id.*

42. N.D. ADMIN. CODE § 69-06-08-01(5) (“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 N.D. CENT. CODE ch. 17-04.”).

43. N.D. ADMIN. CODE § 69-06-08-01(2).

44. *See e.g.*, Tony Clark, Opinion, *North Dakota leads in careful development of wind*, FARGO FORUM (Aug. 12, 2009), <http://www.inforum.com/letters/2900857-north-dakota-leads-careful-development-wind-energy> (Former NDPSC Commissioner Clark stating, “[i]n North Dakota, the PSC has typically ordered that wind turbines be set back close to three times [the requirement other state’s setback requirements of 500 feet from a residence]. A minimum of 1,400 feet has become a rule of thumb in our state.”).

North Dakota statute designates areas within five hundred feet of an inhabited residence as an avoidance area,⁴⁵ however, prior to the 65th North Dakota Legislative Assembly, an exclusion area designating a setback from an occupied residence did not exist.

The 65th North Dakota Legislative Assembly enacted Senate Bill 2313, which created additional exclusion areas for wind facilities that receive a certificate of site compatibility after August 1, 2017.⁴⁶ Senate Bill 2313 incorporated the existing exclusion area setback located in the administrative rules of one and one-tenth times the height of the turbine from the property line of a nonparticipating landowner into statute, and also expanded setback requirements to include areas less than three times or more the height of the turbine from an inhabited rural residence of a nonparticipating landowner.⁴⁷ Senate Bill 2313 expressly states that a “local zoning authority may require setback distances greater than those required [by statute].”⁴⁸ The height of a wind turbine is commonly used as a basis for measuring setback requirements. In addition to creating new setback requirements, the bill also codified the generally accepted definition of “height of a turbine” to mean “the distance from the base of the wind turbine to the turbine blade tip when it is in its highest position.”⁴⁹

B. AVOIDANCE AREAS

The proposed site for a wind facility will also be evaluated for avoidance areas. Avoidance areas are geographical areas that may not be approved as a site for an energy conversion facility unless the applicant shows that under the circumstances, there are no reasonable alternatives.⁵⁰ Avoidance areas include historical resources and areas of recreational significance that are not designated as exclusion areas, areas within city limits or boundaries of a military installation, floodplains, geologically unstable areas, woodlands, and wetlands.⁵¹ An additional avoidance area applies to wind facilities, and a proposed site must not include geographic areas where, due to the operation

45. N.D. CENT. CODE § 49-22-05.1(2) (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)); see *infra* Section V(B) for discussion on avoidance areas.

46. S.B. 2313, 65th Gen. Assemb., Reg. Sess. (N.D. 2017) effectively codified setbacks already existing in the NDPSC’s rules (N.D. ADMIN. CODE § 69-06-08-01(2)) or that were generally applied to a project’s design as industry standard.

47. N.D. CENT. CODE § 49-22-05.1(3) (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)). (A landowner may execute a variance from these standards).

48. *Id.*

49. *Id.*

50. N.D. CENT. CODE § 49-22-05.1 (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)); N.D. ADMIN. CODE § 69-06-08-01(3),(4).

51. N.D. ADMIN. CODE § 69-06-08-01.

of a wind facility, noise levels within one hundred feet of an inhabited residence or community building exceed fifty decibels, unless the requirement is waived in writing by the affected landowner.⁵²

C. SELECTION CRITERIA

The NDPSC's selection criteria requires an applicant to demonstrate that certain effects from a proposed facility's location, construction and operation will be kept to an acceptable minimum.⁵³ Examples of selection criteria include an evaluation of anticipated effects on agriculture, availability and adequacy of government institutions and services, human and animal health and safety, aquifers, etc.⁵⁴ In recent rulemaking, the NDPSC proposed and adopted "light-sensitive land uses" as an additional selection criteria.⁵⁵ The addition codified the NDPSC's practice of evaluating impacts on light-sensitive land uses, otherwise known as, shadow flicker.⁵⁶ The NDPSC has informally adopted the wind industry's guideline that shadow flicker be kept to no more than thirty hours per year at an occupied residence.⁵⁷

D. POLICY CRITERIA

A proposed wind facility will also be evaluated under various policy criteria that allow the NDPSC to give preference to an applicant that will maximize benefits resulting from the adoption of certain policies and practices when siting a proposed wind facility.⁵⁸ The NDPSC will consider benefits associated with the recycling byproducts, energy conservation, use of local materials, labor relations, coordination of facilities, dedication of land areas to uses adjacent to the facility, etc.⁵⁹

The NDPSC's recently created and enacted an additional policy criteria to include "[a] commitment to install lighting mitigation technology for wind

52. *Id.* at (4).

53. N.D. ADMIN. CODE § 69-06-08-01(1), (2).

54. N.D. ADMIN. CODE § 69-06-08-01(5).

55. See Order Submitting Rules to Attorney General, Case No. PU-16-775, (N.D. Pub. Ser'v Comm'n. Apr. 21, 2017) [hereinafter PU-16-775 Order], <https://psc.nd.gov/database/documents/16-0775/046-020.pdf>; see also N.D. ADMIN. CODE § 69-06-08-01(5)(c).

56. AWEA Siting Handbook, *supra* note 28 at 5-33 ("Shadow flicker is the term used to describe the effect caused by the shadows cast by moving wind turbine blades when the sun is visible.").

57. Overview of Turbine Siting and Health Dr. Christopher Olson, Case No. PU-16-042, (N.D. Pub. Ser'v Comm'n.), <https://psc.nd.gov/database/documents/16-0042/063-010.pdf> (Dr. Olson's testimony states that "there are no requirements to limit shadow flicker for health concerns" and "the internationally recognized guideline of no more than 30 hours per year appears to be adequate to reduce annoyance levels . . .").

58. N.D. ADMIN. CODE § 69-06-08-01(6).

59. *Id.*

energy conversion facilities subject to commercial availability and federal aviation administration approval.”⁶⁰ This policy criteria allows the NDPSC to give preference to an applicant that commits to installing, subject to the Federal Aviation Administration’s approval, light-mitigating technology systems on a proposed facility, such as aircraft detection lighting systems.⁶¹ Aircraft detection lighting systems are a new technology that allow a turbine’s flashing lights to remain off until a radar system signals that aircraft is detected within the facility’s vicinity.⁶² The rule codified the NDPSC’s recent practice of giving consideration to a project’s use of aircraft detection lighting systems.⁶³ The 65th North Dakota Legislative Assembly also codified the use of light- mitigating technology systems with the enactment of House Bill 1378.⁶⁴ House Bill 1878 expands the NDPSC’s existing authority to give preference to projects that utilize light-mitigating technology systems by mandating its use on all new wind facilities and by retroactively imposing this requirement on previously permitted facilities.⁶⁵

VI. SITING PROCESS

Applicants traditionally file for local permits either prior to, or simultaneously with the filing of a siting application with the NDPSC. In the event a project is denied local permitting, the project will not advance, unless the project is able to subsequently obtain local approval, which is unlikely to occur once permitting has already been denied.⁶⁶ A degree of risk and uncertainty exists if a proposed project does not obtain its required local permitting prior to its hearing before the NDPSC. In such instances, the NDPSC is likely to postpone a siting hearing, delay issuance of an order, or condition an order on the proposed project obtaining its local permitting. Ultimately, the NDPSC will not issue a siting certificate if a proposed project has been denied its local permitting.⁶⁷

60. PU-16-775 Order; *See id.* at (n).

61. PU-16-775 Order.

62. *Id.*

63. *Id.*

64. N.D. CENT. CODE § 49-22-16.4 (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

65. *Id.*

66. *See* Forum News Service, *Company withdraws application for Dickinson wind farm permit*, THE DICKINSON PRESS, (June 17, 2015), <https://www.thedickinsonpress.com/energy/bakken/3768663-company-withdraws-application-dickinson-wind-farm-permit> (company withdraws siting application from the NDPSC after the project is denied county permitting highlighting the importance of obtaining local permitting).

67. N.D. CENT. CODE § 49-22-16(2)(a) (2017) (as amended by S.B. 2286, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)).

An application for a siting certificate must contain various information regarding the project's design, capacity, project time schedules, studies or assessments regarding environmental impacts, an analysis of the need for the project, map of the proposed location, and an analysis of impacts to areas the NDPSC has designated as avoidance or exclusion areas.⁶⁸

The timeframe in which the NDPSC is required to act in response to an application commences once an application has been deemed complete.⁶⁹ There is no bright-line rule for when an application will be deemed complete, and the Commission retains discretion to determine whether or not it believes the application contains sufficient information and supporting documentation in order to process.⁷⁰ An application will not be set for hearing until it is deemed complete, and timing can become critical for applicants under time constraints. Recently, the Commission has taken two approaches to processing wind facility siting applications. The NDPSC will require that all studies and filings be submitted before it will deem an application complete and set the matter for hearing,⁷¹ or the NDPSC will deem an application complete conditioned on receipt of final turbine locations, cultural and natural resource studies, and other miscellaneous filings at least thirty days prior to hearing.⁷²

68. See N.D. ADMIN. CODE § 69-06-04-01(2) (complete list of required siting application contents).

69. N.D. ADMIN. CODE § 69-06-01-04(1).

70. N.D. ADMIN. CODE § 69-06-01-04(2).

71. See, e.g., Ltr. Re. Filing Time Frame, at 5, Glacier Ridge Wind Farm, L.L.C. Siting Application, Case No. PU-16-539 (N.D. State Pub. Serv. Comm'n July 27, 2016), available at https://www.psc.nd.gov/database/docket_file_list.php?s_dept=PU&s_company_name=Glacier+Ridge+Wind+Farm%2C+LLC&s_year_case=16&s_seq_num=539&s_doc=5 (providing applicant's schedule for submittal of additional information in support of its application in response to a request from NDPSC staff) and NDPSC motion setting application for hearing after receipt of requested supplemental filings); see also *id.*, NDPSC Motion to Deem Application Complete and Issue Notice of Hearing (Aug. 24, 2016) available at <https://psc.nd.gov/database/documents/16-0539/016-020.pdf> (NDPSC motion setting application for hearing after receipt of requested supplemental filings).

72. See, e.g., Motion Consolidating Case for Hearing, Deeming Apps. Complete, and Issuing Notice of Hearing, Siting Application for Oliver Wind III, L.L.C., Case No. PU-16-123 (N.D. State Pub. Serv. Comm'n June 22, 2016), <https://psc.nd.gov/database/documents/16-0123/011-020.pdf> (motion deeming application complete conditioned on receipt of final turbine locations with detail on residence locations and participating and nonparticipating landowners, and cultural and natural resource studies at least 30 days prior to hearing); see also, Brady Wind II, LLC Siting Application, Case No. PU-16-042 (N.D. State Pub. Serv. Comm'n July 6, 2016), <https://psc.nd.gov/database/documents/16-0042/010-020.pdf> (motion deeming application complete conditioned on receipt of final notice and shadow flicker studies and maps and tables showing distances from nearest turbine to each occupied residence in addition to various cultural and natural resource studies at least thirty days prior to hearing).

A. PUBLIC HEARING

A public hearing on an application must be held in each county where a wind facility site is proposed to be located.⁷³ However, the NDPSC retains discretion to consolidate county hearings.⁷⁴ Notice of each hearing must be given at least twenty days prior to the hearing and be published in the official newspaper of each county in which any part of the site is proposed to be located.⁷⁵ Notice is also provided to city and county officers and commissioners where the project is proposed to be located, state political representatives, and twenty-seven various state and federal agencies.⁷⁶

The NDPSC notice of hearing outlines issues the NDPSC will consider in a wind facility siting application for a certificate of site compatibility and include:

- (1) Will the location and operation of the proposed facilities produce minimal adverse effects on the environment and upon the welfare of the citizens of North Dakota;
- (2) Are the proposed facilities compatible with the environmental preservation and the efficient use of resources, and;
- (3) Will the proposed facility locations minimize adverse human and environmental impacts while ensuring continuing system reliability and integrity and ensuring that energy needs are met and fulfilled in an orderly and timely fashion.⁷⁷

In consideration of the aforementioned issues, the NDPSC is required to evaluate the proposed facility in respect to its exclusion, avoidance, selection, and policy criteria,⁷⁸ as well as factors that involve environmental, social, and economic impacts, such as:

1. Available research and investigations relating to the effects of the location, construction, and operation of the proposed facility on public health and welfare, natural resources, and the environment.

73. N.D. ADMIN. CODE § 69-06-01-02(3).

74. *Id.* *see also* N.D. CENT. CODE § 49-22-13(1) (2016).

75. N.D. ADMIN. CODE § 69-06-01-02(3)(a).

76. N.D. ADMIN. CODE § 69-06-01-02(3)(b)-(e); *see also*, N.D. ADMIN. CODE § 69-06-01-05 (designating agencies and officers entitled to notice of hearing).

77. *See, e.g.*, Notice of Filing and Public Hearing, Case No. PU-16-539 (N.D. Pub. Serv. Comm'n. Dec. 7, 2016), https://www.psc.nd.gov/database/docket_file_list.php?s_dept=PU&s_company_name=Glacier+Ridge+Wind+Farm%2C+LLC&s_year_case=16&s_seq_num=539&s_doc=17.

78. N.D. CENT. CODE §§ 49-22-05.1(2016), 49-22-09 (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb., Reg. Sess. (N.D. 2017)); N.D. ADMIN. CODE § 69-06-08-01.

2. The effects of new electric energy conversion and electric transmission technologies and systems designed to minimize adverse environmental effects.
3. The potential for beneficial uses of waste energy from a proposed electric energy conversion facility.
4. Adverse direct and indirect environmental effects that cannot be avoided should the proposed site or route be designated.
5. Alternatives to the proposed site, corridor, or route which are developed during the hearing process and which minimize adverse effects.
6. Irreversible and irretrievable commitments of natural resources should the proposed site, corridor, or route be designated.
7. The direct and indirect economic impacts of the proposed facility.
8. Existing plans of the state, local government, and private entities for other developments at or in the vicinity of the proposed site, corridor, or route.
9. The effect of the proposed site or route on existing scenic areas, historic sites and structures, and paleontological or archaeological sites.
10. The effect of the proposed site or route on areas which are unique because of biological wealth or because they are habitats for rare and endangered species.
11. Problems raised by federal agencies, other state agencies, and local entities.⁷⁹

Public hearings are conducted pursuant to the North Dakota Administrative Practices Act, N.D.C.C. ch. 28-32, and the NDPSC is required to make a formal record of the hearing.⁸⁰ The proceedings are formal administrative proceedings subject to the application of the North Dakota Rules of Evidence,⁸¹ but due to the unique nature of the proceedings, rigid adherence is not common practice.⁸² At the public hearing, any person may present testi-

79. N.D. CENT. CODE § 49-22-09 (2016); Application of Nebraska Pub. Power Dist. for a Certificate of Corridor Compatibility for a 500 KV AC Elec. Transmission Facility Extending from Canadian Border Near Cavalier, N. Dakota to S. Dakota Border near Forman, N.D., 330 N.W.2d 143, 148-149 (N.D. 1983) (holding the NDPSC's authority to regulate is limited to that given by the Legislature and the agency does not have the authority or duty to determine factors not designated in statute).

80. N.D. CENT. CODE § 28-32-26 (2016).

81. N.D. CENT. CODE § 28-32-24(1) (2016).

82. See e.g., N.D. ADMIN. CODE § 69-02-05-01.

mony or evidence relating to information contained in proposed facility's application and the criteria and factors to be considered.⁸³ All testimony presented at a hearing must be made under oath or affirmation.⁸⁴ The applicant will present its case before the NDPSC by offering testimony from company representatives and expert witnesses regarding the proposed facility, including any anticipated impacts to environmental and cultural resources.⁸⁵

If an intervenor has been admitted as a party to a proceeding, it is afforded the opportunity to cross-examine an applicant's witnesses and experts, as well as present its own testimony and evidence.⁸⁶ NDPSC Commissioners, NDPSC staff, and counsel have the opportunity to cross-examine and question all persons testifying at a hearing.⁸⁷ A period is opened for the public to provide sworn comments and testimony to the NDPSC, and this generally occurs after an applicant and other formal parties to the proceeding have presented their case. The public and nonparties to the proceeding are not permitted to cross-examine witnesses⁸⁸ however, it is not uncommon for NDPSC Commissioners or NDPSC counsel to request that a witness follow-up with information or respond to testimony provided by members of the public.

B. POST HEARING

After a hearing has commenced, a party to the proceeding may be authorized to furnish and serve designated late filed exhibits after the close of hearing, and requested to file proposed findings of fact and conclusions of law and order.⁸⁹ The Commission may hold several work sessions to review the record with NDPSC staff and counsel.⁹⁰ The NDPSC may require an applicant to submit additional information if they believe an issue has not been adequately addressed.⁹¹ After the NDPSC has held work sessions on the application, the NDPSC will issue findings of fact, conclusions of law, and an order subject to majority vote⁹² either granting or denying a permit.⁹³

83. N.D. CENT. CODE § 49-22-13(1) (2016).

84. N.D. CENT. CODE § 28-32-24(5) (2016).

85. *See* N.D. CENT. CODE § 28-32-35(2016); *see also* N.D. ADMIN. CODE § 69-02-04-06.

86. *See generally* N.D. ADMIN. CODE §§ 69-02-01-07, 69-02-02-05, 69-02-04-06; *see also* N.D. CENT. CODE § 28-32-27(5) (2016).

87. *See generally* N.D. CENT. CODE § 28-32-35 (2016).

88. N.D. CENT. CODE § 28-32-24(5) (2016).

89. N.D. ADMIN. CODE § 69-02-04-07.

90. *See generally* N.D. ADMIN. CODE § 69-02-08-01; N.D. CENT. CODE § 49-01-07(2016).

91. N.D. CENT. CODE § 28-32-25 (2016).

92. N.D. CENT. CODE § 49-01-07 (2016).

93. N.D. CENT. CODE § 28-32-39 (2016).

The NDPSC is required to issue a designation on the application for a certificate of site compatibility no later than six months after a completed application is filed, but this timeframe may be extended for good cause.⁹⁴

The Commission has the authority to issue a certificate of site compatibility “with such terms, conditions, or modifications deemed necessary.”⁹⁵ The NDPSC has broad authority to impose requirements beyond those expressly listed in statute and rule as long as they are within the scope of the NDPSC’s jurisdiction.⁹⁶ The NDPSC will tailor an order based on facts specific to each project which may result in order provisions that vary from project to project.⁹⁷ It is the NDPSC’s practice to incorporate a certification relating to order provisions by which an applicant certifies it will comply with additional requirements governing: compliance with rules and regulations, future project modifications; filing requirements; construction; restoration and maintenance; and, communication with landowners and the NDPSC.⁹⁸ A project order will also incorporate a separate tree and shrub mitigation specifications document that outlines an applicant’s obligations to replace trees and shrubs disturbed during a facility’s construction.⁹⁹

VII. ISSUES, CONTROVERSIES, AND RECENT DEVELOPMENTS CHALLENGE WIND FACILITY SITING

A. LOCAL OPPOSITION

Opponents to wind development have become more vocal expressing displeasure with existing setback requirements, noise and shadow flicker impacts, visual impacts resulting from tower height, flashing lighting systems, competing property rights claims, and concerns surrounding decommissioning at the end of a facility’s useful life.¹⁰⁰ Public comment at hearings can be influential in certain instances and result in impromptu requests from the NDPSC for changes to a project’s design and layout.¹⁰¹ Increased opposition

94. N.D. CENT. CODE § 49-22-08(5) (2017) (as amended by H.B. 1144, 2017 65th Leg. Assemb, Reg. Sess. (N.D. 2017)).

95. *Id.*

96. *See* N.D. CENT. CODE § 49-02-02(2) (2016).

97. *See generally Id.*

98. *See, e.g.,* Findings of Fact, Conclusions of Law and Order, Case No. PU-16-123 (N.D. Pub. Serv. Comm’n June 22, 2016), <https://psc.nd.gov/database/documents/16-0123/087-030.pdf>.

99. *Id.*

100. *See, e.g.,* Allyssa Dickert, *N.D. Public Service Commission Surprised by Wind Farm Opposition*, KFYR, (Mar. 31, 2016), <http://www.kfyrtv.com/home/headlines/Dickinson-Public-Service-Commission-Surprised-by-Wind-Farm-Opposition-374199651.html>.

101. *See, e.g.,* Kalsey Stults, *Hearing for wind farm in western North Dakota longest in state history*, AGWEEK (Apr. 1, 2016, 9:55 AM), <http://www.agweek.com/news/north-dakota/3999837->

has caused NDPSC siting hearings to hit record lengths spanning upwards of fifteen hours.¹⁰²

Local opposition can have detrimental effects on the development of a proposed wind facility if opponents are able to successfully influence decision makers. If a political subdivision denies a proposed wind facility its local permitting, it is unlikely the project will even reach a hearing before the NDPSC.¹⁰³ In May 2015, Dickinson Wind, LLC was denied a conditional use permit for its proposed eighty-seven turbine wind facility in Stark County, North Dakota.¹⁰⁴ The proposed project was initially endorsed by the county's planning and zoning board, but was later denied a conditional use permit after county commissioners received hundreds of phone calls in opposition to the project.¹⁰⁵ Opponents expressed concern over potential visual impacts, while proponents who signed easements for the project asserted their right to develop.¹⁰⁶ Local landowners went so far as to form an opposition group, and hire counsel to intervene in the project's then pending application before the NDPSC.¹⁰⁷

In November 2016, a similar situation occurred and the application to construct the Charlie Creek Wind Farm, a 114-turbine wind project proposed to be located in Billings County, North Dakota, was denied by the county commission.¹⁰⁸ Project opponents expressed concern over potential visual impacts to cultural and natural resources and their potential to impact local tourism, while proponents asserted they should not be denied the ability to develop their property.¹⁰⁹ Ultimately, the local commission believed the potential for the project's visual impacts to deter tourism was too significant, and the project's application was denied.¹¹⁰

hearing-wind-farm-western-north-dakota-longest-state-history (Applicant agrees to relocate turbines after Commissioner gives landowner opportunity to request a change to the proposed project's layout).

102. *Id.*

103. *Company withdraws application for Dickinson wind farm permit*, THE DICKINSON PRESS (June 17, 2015, 6:04 PM), <https://www.thedickinsonpress.com/energy/bakken/3768663-company-withdraws-application-dickinson-wind-farm-permit> (Former NDPSC Commissioner Brian Kalk underscores the importance of local approval for projects after a project applicant is denied local permitting and subsequently withdraws its application with the NDPSC).

104. Mike Nowatzki, *PSC postpones hearing on Dickinson Wind project; property owners petition to intervene*, GRAND FORKS HERALD (May 13, 2015, 9:00 PM), <http://www.grandforksherald.com/news/business/3744390-psc-postpones-hearing-dickinson-wind-project-property-owners-petition>.

105. *Id.*

106. *Id.*

107. *Id.*

108. *Supra* note 100.

109. *Id.*

110. *Id.*

B. LEGISLATION

In addition to local opposition, the potential for legislation to curtail future development was seen through various proposed legislation introduced in the 65th North Dakota Legislative Session. A proposed amendment to Senate Bill 2314, as passed by the Senate Energy and Natural Resource Committee, would have prevented the NDPSC from approving a wind facility siting application for two years after August 1, 2017.¹¹¹ House Bill 1372 was also proposed in the North Dakota 65th Legislative Session, which would have assessed a tax on wind facilities for every megawatt-hour of electricity generated.¹¹² The goal of the proposed tax was to “level the playing field” among generation sources within the state and account for tax incentives that wind generation receives.¹¹³ The proposed wind facility siting moratorium and the wind generation tax were both ultimately rejected,¹¹⁴ but their mere proposal demonstrates that the state’s regulatory climate has the potential to thwart future development.

C. DECOMMISSIONING & BONDING

“As wind generation continues to expand in North Dakota and the projects grow in size and scale, the costs and consequences of failed or improper decommissioning have become a concern for the Commission.”¹¹⁵ The NDPSC commenced a recent rulemaking proceeding that significantly expanded the regulatory framework governing decommissioning of wind facilities.¹¹⁶ To address these concerns, the NDPSC proposed rules to “strengthen the method of ensuring funds for decommissioning and restoration are available throughout the life of the project; heighten decommissioning requirements for future projects; and allow the Commission to effectively monitor the costs for decommissioning and restoration.”¹¹⁷

The new rules require a decommissioning plan containing a certified decommissioning cost estimate to be filed and approved by the NDPSC prior to a facility’s operation, provide a timeframe in which decommissioning must

111. S.B. 2314, 2017 65th Leg. Assemb, Reg. Sess. (N.D. 2017) <http://www.legis.nd.gov/assembly/65-2017/documents/17-0884-03004a.pdf>.

112. H.B. 1372, 2017 65th Leg. Assemb, Reg. Sess. (N.D. 2017) <http://www.legis.nd.gov/assembly/65-2017/documents/17-0291-03000.pdf>.

113. Associated Press, *Tax on wind power proposed in North Dakota*, THE WASH. TIMES (Feb. 1, 2017), <http://www.washingtontimes.com/news/2017/feb/1/tax-on-wind-power-proposed-in-north-dakota/>.

114. Case No. PU-17-023 (N.D. Pub. Serv. Comm’n).

115. Press Release, N.D. Pub. Serv. Comm’n, PSC Approves Rule Changes Related to Wind Projects (May 2, 2017), <https://psc.nd.gov/public/newsroom/2017/5-2-17WindRulesApproved.pdf>.

116. See Case No. PU-17-023 (N.D. Pub. Serv. Comm’n).

117. *Id.*

occur, expand site reclamation requirements, require that financial assurance be placed with the NDPSC prior to facility construction and operation, and govern criteria for the form of financial assurance that the NDPSC may accept.¹¹⁸

VIII. CONCLUSION

North Dakota has experienced rapid growth in the development of wind generation within the state. North Dakota's siting process evaluates and balances potential impacts to the environment, natural resources, cultural resources, economic impacts and the overall welfare of the citizens of North Dakota. The NDPSC holds primary siting authority, but the NDPSC may not preempt local land use, zoning or building rules, regulations, or ordinances when siting a wind facility. The NDPSC's regulations create a regulatory baseline that govern the minimum requirements a wind facility must meet. Political subdivisions retain the authority to require more restrictive standards based on the particular needs or preferences of their local community.

Siting a wind facility is a regulatory process governed by statute and administrative rule. The regulatory process allows for input from various stakeholders, the public, state agencies, and in certain instances, federal agencies. The adoption of new regulations is likely to continue as development expands across the state, and the NDPSC's recent decommissioning rulemaking is one example.

Opportunities for continued development exist within the state, however, vocal opposition among local landowners, and uncertainty surrounding the potential for future legislation and regulation to affect the wind industry, could impact the rate in which wind facilities are developed. From the period of January 1, 2017 through July 1, 2017, no new siting applications for a wind energy conversion facility had been filed with the NDPSC.

118. *See generally* Case No. PU-17-023 (N.D. Pub. Serv. Comm'n); *see also* N.D. ADMIN. CODE 69-09-09.