ARTICLE

WIND ENERGY: SITING CONTROVERSIES
AND RIGHTS IN WIND

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In at least two respects the legal status of the wind-energy industry of the early twenty-first century is analogous to that of the oil industry of one hundred years ago. First, and most obviously, the location of wind farms is largely unregulated. Except in urban areas, where zoning and building regulations may impose restrictions on wind turbines, the siting and location of utility-grade wind plants are left almost entirely to the discretion of wind companies and individual landowners. Like the oil derricks at Spindletop, wind turbines may be erected almost anywhere and in virtually any number.

The second similarity is the pervasive legal uncertainty concerning rights in wind. In 1907, the question was often: can a landowner reserve rights in “fugitive” substances like oil and gas when selling his property? The equivalent question in 2007 is whether a landowner can reserve rights in wind when selling his property. There is an equivalent parallel with leases. Oil leases of the late nineteenth and early twentieth century were notable for their diversity of structure and content and left unanswered some of the most fundamental questions about the nature of the lessee’s interest and other relative rights of the parties. What sort of estate in land is created by an oil and gas lease?1 If the lessor’s or lessee’s legitimate use of the surface conflicts with the other’s use, which prevails?2 Does either party have rights other than those expressly set out in the instrument?3 To a significant extent, the same or similar questions may arise under the wind leases of the late twentieth and early twenty-first centuries.

There is reason to believe that the legal issues currently

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2. For a discussion of lessor and lessee disputes over surface usage, see Ernest E. Smith & Jacqueline L. Weaver, 1 TEXAS LAW OF OIL AND GAS §2.1(B) (2d ed. 1998 & Supp. 2006).

3. For a discussion of implied covenants in oil and gas leases, see Owen L. Anderson et al., HEMINGWAY OIL AND GAS LAW AND TAXATION §§ 8.1–.7 (4th ed. 2004)
raised by wind farms will be resolved in ways somewhat similar to those applied to the early oil industry. Litigation over the location of wind turbines is already in progress, and regulation of the siting of wind farms and possibly of small turbines producing electricity for on-site use seems virtually inevitable. There is increasing concern that the lack of regulation has led, and will continue to lead, to depressed property values; the ruin of scenic vistas; interference with recreational enjoyment of previously pristine, unspoiled areas; degradation of areas of special historic and cultural value; widespread avian and bat mortality; fragmentation of wildlife habitat; soil erosion; water pollution; and other types of environmental injury. Some of these concerns are soundly based; others may be not-in-my-backyard (“NIMBY”) in thin disguise. In either event, however, the increasingly widespread popular and, on occasion, political opposition to wind farms presages regulation of siting as surely as the gushers, Boiler Avenue, polluted water, and the excesses of the East Texas Field gave rise to spacing regulations for oil and gas wells.

A similar conclusion can be reached with respect to “wind law.” The need for certainty in legal transactions and for basic forms from which to structure such transactions will, in all probability, lead to a body of law governing private wind-energy transactions and to some degree of standardization of the basic instruments used in the industry, including wind leases.

It should not be supposed, however, that siting regulations, the emerging body of wind law, or the instruments used in leasing or otherwise transferring rights in wind will track the regulations, statutory provisions, and legal doctrines that now govern oil and gas transactions. This paper explores the current status of these matters and suggests where developments may be headed.

I. Wind Turbine Siting: Litigation and Regulation

The most controversial issue concerning wind turbines is their location. Wind farms in migratory flyways, previously unbroken prairies and unspoiled natural areas, or endangered-

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6. This is the famous street of Spindletop, where the oil wells were drilled so close together that a person could walk for over a mile from derrick floor to derrick floor without ever touching the ground.
species’ habitat are obvious causes for concern. To date, however, litigation has generally not involved the actual or potential environmental impact of wind turbines, but has centered around their claimed impact upon the use, enjoyment, and value of nearby property. Several cases have involved complaints by neighbors that the noise generated by small wind turbines producing electricity for on-site residential use constitutes a nuisance and should be enjoined. The first reported cases dealing with the location of an industrial-grade wind farm are far more complex. In these cases a very well-financed opposition to a proposed wind plant in Nantucket Sound challenged the authority of a federal agency to grant a permit for a wind-monitoring tower that is the first step toward erecting the wind plant. Elsewhere, state governments and municipalities are wrestling with the problem of how to encourage the use of a plentiful and clean renewable energy source while protecting environmental values; residential enjoyment; and historic, agricultural, and other state and local resources.

A. Permitting Authority for Offshore Locations

The litigation over “Cape Wind,” a proposed wind plant in Nantucket Sound, may well be a harbinger of what is in store for companies planning to locate wind farms in or near populated areas or popular tourist destinations. For this reason, and because the various decisions are the first of their kind to be reported, the litigation is worth examining in some detail.

Cape Wind’s project, if completed, will result in 170 industrial-grade wind turbines fitted with rotor blades that will reach a maximum height of 423 feet stretching across approximately twenty-six square miles of Horseshoe Shoals in Nantucket Sound. The turbines will be visible from Nantucket Island, which is a historic site and popular tourist destination. They will be placed in the middle of a popular sailing area that is also used intensively by commercial and sport fishermen. Once announced, the proposal evoked immediate and vigorous
opposition from landowners on Nantucket Island, the governor of Massachusetts, and a wide variety of business, tourist, environmental, sailing, fishing, and citizens’ groups. In the absence of siting guidelines or regulations governing the location of industrial wind farms in offshore waters, the resulting litigation centered primarily on whether the federal government, the Commonwealth of Massachusetts, both, or neither has jurisdiction over Horseshoe Shoals, and which state or federal agency, if any, has licensing and permitting authority.

1. The Jurisdictional Issue

At first blush, determining whether the Commonwealth or the federal government has jurisdiction seems to be easily resolved by looking at the relevant statutes. Under the Submerged Lands Act, a coastal state’s territory, including title to the seabed and underlying minerals, extends three miles seaward. Coastal states routinely grant oil and gas leases within this area and presumably have authority to license and regulate wind farms or to prohibit them altogether. Jurisdiction and the right of development beyond a coastal state’s territory are governed by international law and the Outer Continental Shelf Lands Act, which gives the federal government exclusive jurisdiction over the subsoil, seabed, and structures to the furthest extent permitted by international law.

Horseshoe Shoals in Nantucket Sound, however, presents a situation that is both geographically and legally complex. Because of the curvature of Massachusetts’ coast and the location of Martha’s Vineyard, Nantucket, and several much smaller islands, Nantucket Sound is almost completely enclosed by land of the Commonwealth. But, because of the size of Nantucket Sound and the location of Horseshoe Shoals within the Sound, Cape Wind’s turbines will be more than three miles distant from any Massachusetts coast and thus outside the area granted to Massachusetts by the Submerged Lands Act. Indeed, in order to avoid Massachusetts’ jurisdiction, Cape Wind modified its

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12. See id. at 67 n.2.
13. See id. at 67.
15. States bordering the Gulf of Mexico are entitled to a further extension based upon historic claims. Id. § 1312. Because of prior sovereign claims by the Kingdom of Spain, Florida and Texas have established title seaward within the Gulf to a distance of three marine leagues (approximately twelve miles). United States v. Louisiana, 363 U.S. 121 (1960).
17. Id. §§ 1332(3), 1333(a)(2)(A).
original plan after a federal map revealed the existence of a previously unknown rock island that was deemed to be part of Massachusetts. The sites for ten of the turbines were relocated so that they and all of the other turbines would be at least three miles distant from state territory.\textsuperscript{19}

However, the geographical limitations established by the Submerged Lands Act did not automatically resolve the issue of conflicting or possibly concurrent jurisdiction. Massachusetts, as claimed successor to the British crown, has asserted authority over all of Nantucket Sound. Although the Supreme Court has ruled against Massachusetts on this issue,\textsuperscript{20} the U.S. Congress has been more sympathetic. It amended the Magnuson-Stevens Act,\textsuperscript{21} which provides that the federal government has “exclusive fishery management authority”\textsuperscript{22} over the U.S. exclusive economic zone, and granted Massachusetts “the jurisdiction and authority” over all of Nantucket Sound “[f]or the purposes of [the] Act.”\textsuperscript{23} This rather convoluted statutory scheme was the basis for the contention that the federal government and Massachusetts have concurrent jurisdiction over Horseshoe Shoals and that Cape Wind must obtain the necessary permits and licenses from the appropriate agencies of both the state and the federal government.\textsuperscript{24}

2. Round One: The Ten Taxpayer Citizens Group

The initial round of litigation began when Cape Wind Associates, LLC, sought a permit for a wind monitoring tower. Wind companies like Cape Wind are analogous to oil and gas companies in this respect. Both industries are capital intensive and both seek to obtain as much information as possible about the resource before making the investment. Hence, just as oil and gas companies undertake geophysical or seismic exploration before drilling, wind companies seek to determine if a potential site for a wind farm has sustained winds of the velocity necessary to generate electricity at a more or less constant level.\textsuperscript{25} Cape Wind’s application was to the U.S. Army Corps of Engineers. It


\textsuperscript{20} United States v. Maine, 475 U.S. 89 (1986).


\textsuperscript{22} Id. § 1801(b)(1)(B).

\textsuperscript{23} Id. § 1856.

\textsuperscript{24} Ten Taxpayer Citizens Group v. Cape Wind Assocs., LLC, 373 F.3d 183 (1st Cir. 2004), aff’g 278 F. Supp. 2d 98 (D. Mass. 2003).

\textsuperscript{25} See Ten Taxpayer Citizens Group, 278 F. Supp. 2d at 99.
sought a section 10 permit under the Rivers and Harbors Act to erect a 197-foot tower on Horseshoe Shoals to monitor wind speed and constancy for five years.

A newly-formed organization, the Ten Taxpayer Citizens Group, immediately obtained a temporary restraining order in state court. When the order expired, the group filed a second action in state court for a permanent injunction. Cape Wind removed the case to federal court, where the jurisdictional issue was first fully aired. Arguing that the amendment to the Magnuson-Stevens Act gave Massachusetts regulatory authority over all activities in Nantucket Sound that might affect fishing, the opponents of the project contended that Cape Wind must seek permits for the tower from both the Massachusetts Department of Environmental Protection (“MDEP”) and the Massachusetts Department of Environmental Management (“MDEM”).

The first was necessary because the structure would be erected in the state’s “waterways” and “filled tidelands.” The second was required because the tower would be on the seabed of an area subject to the state’s Ocean Sanctuaries Act.

The plaintiffs lost on these arguments at trial and on appeal to the First Circuit. The courts disagreed with the plaintiff’s interpretation of Massachusetts’ statutes and regulations dealing with “waterways” and “filled tidelands” that would give MDEP jurisdiction over Horseshoe Shoals. The argument concerning MDEM was even more problematic, for that agency had earlier expressly disclaimed any authority over the area. Moreover, the court concluded that any claim by the Massachusetts agencies to licensing authority in Horseshoe Shoals was barred by the Outer Continental Shelf Lands Act, which gives the federal government exclusive authority over the subsoil, seabed, and structures beyond the coastal states’ “submerged lands” territory. The court rejected the contention that the amendment to the Magnuson-Stevens Act, which authorized Massachusetts to regulate “fishing-related conduct” within Nantucket Sound, gave the state the right to regulate the placement of the wind-monitoring tower.

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28. *Id.*
34. *Ten Taxpayer Citizens Group*, 373 F.3d at 194.
3. Round Two: The Alliance to Protect Nantucket Sound

The controversy over the wind-monitoring tower was only “an early round in the legal battle over whether a commercial wind-energy farm may be built in Nantucket Sound.” While the Ten Taxpayer Citizens Group’s case was moving through the federal courts, a second federal case was already in progress. Another newly-formed organization, the Alliance to Protect Nantucket Sound, advanced a three-pronged challenge to the validity of the Corps of Engineers’ permit for the monitoring tower. Relying on the language of the Outer Continental Shelf Lands Act, and the geographical location of Horseshoe Shoals, the Alliance argued that the Corps’s permitting jurisdiction was restricted to structures used for, or in connection with, the extraction of natural resources. Moreover, the Corps’s own regulations required an applicant to have “the requisite property interest to undertake the activity proposed in the application,” and Cape Wind neither owned nor leased the location for the tower. Indeed, there was no federal statute or regulation under which Cape Wind could acquire such a right in the seabed of the outer-continental shelf. The final argument was based upon the Corps’s alleged violation of the regulations governing actions subject to the National Environmental Policy Act (“NEPA”). The Corps had made a finding that the monitoring tower would have no significant impact upon the environment and then had issued the permit without first circulating for public comment either the draft Environmental Assessment that had been the basis for the no-significant-impact finding or the finding itself. The plaintiff pointed out that the regulations required draft findings of no-significant-impact to be made available for public comment when “[t]he nature of the proposed action is one without precedent.” Granting a permit to a private entity for a wind tower on federal offshore land was unprecedented.

The Alliance had no more success in federal court than Ten Taxpayers Citizens Group. The First Circuit Court of Appeals affirmed the Corps’s authority to grant the section 10 permit.

35. See id. at 185.
37. Id. at 108.
39. See Nantucket Sound 2, 398 F.3d at 108.
40. Id. at 111.
42. Nantucket Sound 2, 398 F.3d at 115 (citing 40 C.F.R. § 1501.4(e)(2)(ii) (2005)).
ruling that Congress had not intended to restrict the Corps’s section 10 permitting authority in the outer continental shelf to structures relating to mineral extraction and pointing out that the Corps’s regulations merely required an applicant to “affirm” that it had a property interest. The Corps, like other administrative agencies, has no power to determine property rights. Moreover, the wind monitoring tower, which was a single temporary structure that would produce data for the government as well as Cape Wind, would have a negligible impact on the federal land on which it was constructed. The court also ruled that the Corps did not violate the NEPA requirement by failing to circulate a draft environmental assessment and finding of no significant impact for public comment. The data tower was not “without precedent” because a somewhat similar structure already existed on Martha’s Vineyard and there were other “pile supported structures” within Nantucket Sound.

4. Rounds Yet to Come

Cape Wind’s right to erect and maintain the wind monitoring tower was upheld after a multitude of administrative proceedings, public hearings before the Army Corps of Engineers, several reports, as required under NEPA, two proceedings in state courts and hearings and decisions in both the federal district court and in the First Circuit. The ultimate result was merely a determination that the Corps had authority to issue a permit for the monitoring tower. As the First Circuit pointedly stated: “[w]e do not here evaluate whether congressional authorization is necessary for construction of Cape Wind’s proposed wind-energy plant, a structure vastly larger in scale, complexity, and duration [than the data tower].”

What is noteworthy about these cases is not that Cape Wind has, to date, prevailed in every hearing before a federal agency and won every case in the federal courts, but that its opponents have been willing and financially able to pursue such

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43. See id. at 112–13.
44. For example, the Texas Railroad Commission cannot determine property rights. See ERNEST E. SMITH & JACQUELINE L. WEAVER, 2 TEXAS LAW OF OIL AND GAS § 8.3(F) (2d ed. 1998 & Supp. 2006).
45. See Nantucket Sound 2, 398 F.3d at 111.
46. Id. at 113.
47. Id. at 115.
48. Id.
50. Nantucket Sound 2, 398 F.3d at 105.
expensive and legally complex litigation involving only the first tentative step toward the wind farm, i.e., erecting the monitoring tower. They have continued to take advantage of every administrative opportunity to delay or defeat the project, and there is every reason to assume that further litigation will ensue if Cape Wind begins actual construction on the wind farm itself.

B. Location and Nuisance

It is unlikely that other proposed wind-farm sites will present the unique and highly litigable jurisdictional issues raised by Cape Wind. On-shore sites are likely to be on private land, and in the absence of state or local ordinances governing location, the most probable argument advanced by the opponents of a wind farm will be nuisance. A generally accepted definition of a nuisance is “a condition which substantially interferes with the use and enjoyment of land by causing unreasonable discomfort or annoyance to persons of ordinary sensibilities attempting to use and enjoy it.”

1. Applicability of Nuisance Criteria to Wind Turbines

An initial question raised by this definition is whether the nature of wind turbines' interference with the enjoyment of neighboring property could ever be actionable. Aesthetic objections, such as those that drive much of the opposition to Cape Wind, are often rejected as grounds for nuisance. Similarly, unfounded fears of safety hazards, such as turbine blades coming loose or flinging ice after becoming covered with sleet, snow, or freezing rain, cannot be the basis for an action. Texas cases are especially instructive on this point. Almost a century and a half ago, the Texas Supreme Court stated that “a well-founded apprehension of danger may be a nuisance,” but it is abundantly clear that a groundless fear that something might go wrong in the operation of a lawful and properly conducted business cannot be the basis of a claim. For example, the court in Maranatha Temple, Inc. v. Enterprise Products Co. rejected a

51. See, e.g., Scott Allen, supra note 19 (describing the opponents' request for a new state environmental study of the impact of Cape Wind's modified plans on the fishing grounds in Nantucket Sound).
52. Bible Baptist Church v. City of Cleburne, 848 S.W.2d 826, 829 (Tex. App.—Waco 1993, writ denied).
53. See, e.g., Wernke v. Halas, 600 N.E.2d 117, 122 (Ind. Ct. App. 1992) (“It may be the ugliest bird house in Indiana, or it may merely be a toilet seat on a post. The distinction is irrelevant, however; [defendant’s] tasteless decoration is merely an aesthetic annoyance . . . .”).
nuisance claim based on concerns that an industrial accident might occur at nearby petrochemical facilities with no apparent history of mismanagement or accidents.\textsuperscript{55} The same result was obtained in \textit{Union Pacific Resources Co. v. Cooper}, where the plaintiffs left their house because they feared that gas from a nearby well might escape and poison them.\textsuperscript{56} Nuisance claims based on the presence of nearby business facilities, such as pipelines,\textsuperscript{57} oil refineries,\textsuperscript{58} and butane storage tanks,\textsuperscript{59} usually considered far more hazardous than wind turbines, have met similar fates.

Even when a business activity results in clearly disruptive impacts upon a nearby landowner, such as the dust and noise from the excavation and construction associated with installing wind turbines, such effects are temporary, differ little from the disturbances inevitably resulting from building roads or other structures, and are unlikely to give rise to a successful claim in nuisance. An early case dealing with a complaint about oil drilling is instructive on this point. The plaintiffs in \textit{Domengeaux v. Kirkwood \& Co.} brought suit in nuisance, alleging that the noise, fumes, lights, and vibrations from a rig located about sixty feet from their tourist court and operating twenty-four hours a day for twenty days had not only interfered with their own enjoyment of their property, but had caused their tenants to leave.\textsuperscript{60} The drilling rig’s impact upon the plaintiffs’ business and their own use of their property was apparently undisputed, but in upholding the trial judge’s conclusion that no nuisance existed, the court pointed out that the rig had been operated “as carefully and quietly as possible.”\textsuperscript{61} Indeed, in a state such as Texas, which had traditionally encouraged all aspects of the energy industry, one might question whether interference with the enjoyment of neighboring property by a properly operated energy-related business would ever give rise to a successful nuisance claim, regardless of the severity and duration of the disruptions caused

\textsuperscript{57} Warren v. Premier Oil Refining Co., 173 S.W.2d 287 (Tex. Civ. App.—Eastland 1943, writ ref’d w.o.m.); Humble Pipeline Co. v. Anderson, 339 S.W.2d 259 (Tex. Civ. App.—Waco 1960, writ ref’d n.r.e.).
\textsuperscript{59} Automatic Gas Co. v. Dudding, 189 S.W.2d 780 (Tex. Civ. App.—Texarkana 1945).
\textsuperscript{60} Domengeaux v. Kirkwood \& Co., 297 S.W.2d 748 (Tex. Civ. App.—San Antonio 1956).
\textsuperscript{61} \textit{Id.} at 750.
to neighboring landowners. In this regard, the comment of the Maranatha court is noteworthy. It expressed concern that Texas courts would be opened “to a potential torrent of litigation” if suits such as the plaintiffs' were allowed against energy-related industries.62

On the other hand, constant noise has long been considered an acceptable basis for a nuisance complaint and was the basis for a finding of nuisance in one of the few cases involving a wind turbine.64 The noise does not, of course, have to come from the turbines themselves, but might result from other facilities or activities connected with an industrial-grade wind plant. The occasional strobe-light effect from sunlight reflecting on revolving turbine blades might also qualify as an unacceptable intrusion in a suburban neighborhood.

A second set of issues revolves around the elements of the tort of nuisance. As law students know only too well, this tort is notorious for its imprecision. Moreover, the requisite elements not only vary from state to state, but are often difficult to articulate even with respect to a single jurisdiction.65 Successful claims may be made against activities that are entirely proper, lawful and even laudable; operations conducted negligently, and intentional, wrongful acts.67 As a general rule, however, modern nuisance analysis considers whether the defendant's activity is appropriate for the location; the degree of harm to the plaintiff; the benefit to the defendant of the complained-of activities; the alternatives available to the defendant; the plaintiff's ability to avoid the harm; and the social utility of the defendant's conduct.68

In determining if wind turbines may constitute a nuisance

62. Maranatha, 893 S.W.2d at 100.
66. E.g., Rose v. Chaikin, 453 A.2d at 1378.
67. Texas courts have stated that an actionable nuisance must fall within one of three categories: an intentional invasion of another's property interests, negligent invasion of such interests, or other conduct that is culpable because it is out of place in its specific location. See, e.g., City of Texarkana v. Taylor, 490 S.W.2d 191, 194 (Tex. Civ. App.—Texarkana 1972, writ ref'd n.r.e.); City of Cleburne, 848 S.W.2d at 829.
through the application of these factors, it is necessary to distinguish between complaints based on single wind turbines generating electricity for on-site use and complaints aimed at utility-grade wind farms.

2. Single Wind Turbines

To this point in time, reported nuisance litigation over wind turbines has involved only single turbines generating electricity for an on-site use.\(^{69}\) In dealing with these complaints, courts have relied on the factors listed above.\(^{70}\) Thus the plaintiff’s ability to avoid the harm, i.e., the “coming to the nuisance” doctrine, was decisive to the North Dakota Supreme Court’s ruling in *Rassier v. Houim*, where the plaintiff unsuccessfully claimed that noise from a wind turbine producing electricity for a neighboring landowner constituted an actionable nuisance.\(^{71}\) The opposite result was reached in *Rose v. Chaikin*, where a New Jersey court enjoined operation of a residential wind turbine on the basis of findings that the noise it produced exceeded the decibel levels allowed by the city ordinance and was “offensive to persons of ordinary sensibilities.”\(^{72}\) Of special importance was the generator’s location, which was a quiet beach-side subdivision far away from commercial and traffic noises and previously characterized by “soothing and welcome [natural] sounds” such as “the sea, the shore birds, [and] the ocean breeze.”\(^{73}\) The defendant’s argument that the turbine had special social utility because it furthered energy conservation through the use of renewable power did not sway the court.\(^{74}\) It stated that societal benefits from a single wind turbine were more than outweighed by the harm done to plaintiffs.\(^{75}\)

*Rose* was decided over twenty years ago. Would the result be the same today? If the issue arose in the identical context, the answer is almost certainly “Yes.” The construction or operation of a wind turbine that violates a municipal ordinance because of its height, location or noise might very well be enjoined as a nuisance. Indeed, in some jurisdictions such a wind turbine might be considered a nuisance per se.

In the absence of a controlling ordinance barring the type

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70. See supra notes 53–68 and accompanying text.
73. Id.
74. Id.
75. Id. at 1383.
of structure in question, the result seems somewhat less likely. Not only are newer turbines quieter than the one at issue in *Rose*, but in many states the significance of the social utility factor is much greater. The New Jersey court found it relatively easy to dismiss the argument that defendant’s single wind turbine furthered a national policy of energy conservation and use of alternative energy sources.\textsuperscript{76} Today, however, such policies exist at both the national level and the state level. The Energy Policy Act of 2005 provides financial assistance of up to approximately $3,000 for the installation of a “renewable energy system” used in connection with a dwelling.\textsuperscript{77} Such systems include solar, biomass, geothermal, and “wind energy for nonbusiness residential purposes.”\textsuperscript{78} There is even more extensive state legislation that is specifically aimed at encouraging homeowners and owners of small businesses to install the type of system used by the *Rose* defendant: a wind turbine or other renewable-resource system producing electricity for on-site use.\textsuperscript{79}

One of the most common state incentives is in the form of favorable tax treatment. These tax incentives include credits against the state’s income tax for a portion of the cost of installing a renewable energy system, deduction of all or part of the installation cost from gross income, sales tax exemptions for the cost of the various components of the system; and favorable property tax treatment.\textsuperscript{80} For example, Texas exempts from property tax valuation the increase in value that results from installing a wind-powered energy device.\textsuperscript{81} This exemption is restricted to wind-powered facilities that produce electricity for on-site use,\textsuperscript{82} and is not available to a wind company that owns the property where its wind farm is located or a landowner who leases his property to a commercial wind farm.\textsuperscript{83} States with low-

\textsuperscript{76} Id. at 1382.
\textsuperscript{78} Id. § 6865(e)(6).
\textsuperscript{80} Id.
\textsuperscript{82} Id.
interest loan programs for acquiring renewable-resource generating systems, or that offer rebates for the cost of installation, also commonly limit eligibility to farms, small businesses, and homeowners.\textsuperscript{84} “Net metering” is similarly restricted to residences and small businesses. Under this system, which is in place in at least thirty states, utilities are required to allow customers with renewable energy systems to install bi-directional meters.\textsuperscript{85} A homeowner or small business that produces more electricity than it consumes can direct the excess electricity into the utility’s electric grid and receive a credit against future electric bills.\textsuperscript{86}

The “social utility” of a wind turbine such as the one at issue in the \textit{Rose} case could not be easily discounted in a state with tax incentives, net metering requirements, or other programs specifically designed to encourage the installation and use of renewable-energy devices producing electricity for a single home or business. If, however, some other renewable energy system, such as one based on solar energy, would also qualify for the various state incentives and is a viable alternative to a wind turbine, an injunction on nuisance grounds might nonetheless be granted.

3. Wind Farms

The probable outcome of nuisance litigation is much clearer if a wind farm, rather than a single wind turbine, is the target of the action. Even if plaintiffs in a nearby subdivision establish that the turbines and related activity substantially interfere with their enjoyment of their homes, it is highly improbable that they can obtain an injunction. Courts are generally reluctant to enjoin the operation of legitimate businesses.\textsuperscript{87} As the Texas Supreme Court has stated, “abatement of a lawful place of business is a harsh remedy” and will be granted only if there is no adequate remedy at law.\textsuperscript{88} This result is especially likely if there is a considerable disparity between the economic consequences of a permanent injunction to the defendant and the effect of the nuisance on the plaintiff. If constant humming and related noises from a wind farm are found to constitute a nuisance, the probable

\begin{itemize}
  \item \textsuperscript{84} See Ernest E. Smith, \textit{supra} note 79, at 180–81.
  \item \textsuperscript{85} \textit{Id.}
  \item \textsuperscript{86} \textit{Id.}
  \item \textsuperscript{87} In \textit{Spur Indus., Inc. v. Del E. Webb Dev. Co.}, 494 P.2d 700, 705–08 (Ariz. 1972), the court enjoined defendant from operating a cattle feedlot because of the smells, flies, and other problems afflicting a newly established nearby residential subdivision, but required the subdivider to pay the cost of relocating defendant’s business.
  \item \textsuperscript{88} Storey v. Cent. Hide & Rendering Co., 226 S.W.2d 615, 618 (Tex. 1950).
\end{itemize}
result of the litigation is that of Boomer v. Atlantic Cement Co.\textsuperscript{89} In that case the New York court awarded damages but refused to enjoin a cement plant whose dust, smoke, and vibrations adversely affected nearby landowners.\textsuperscript{90} The court pointed to the relatively small injury to each of the plaintiffs’ properties compared with the value of the defendant’s operations and, in a footnote, made special mention of the economic consequences to the community of closing a multi-million dollar plant employing over 300 people.\textsuperscript{91} Other courts have reached the same conclusion in such situations.\textsuperscript{92}

This conclusion has also frequently been reached where the objectionable activity has special social utility.\textsuperscript{93} This factor will almost certainly have even greater weight in the context of a suit against a large wind farm than against a single wind turbine for there is a clear policy in favor of such facilities on the federal level and in many states. On the federal level, this policy is best exemplified by the federal production tax credit, which originated in the Energy Policy Act of 1992.\textsuperscript{94} This provision grants the owner of a utility-grade wind plant, or other facility that produces electricity for sale from renewable sources, a specified production credit against its corporate income. The economic incentive that the tax credit creates for developing large wind plants cannot be easily overestimated. One commentator has indicated that the tax credit is worth between 1.5¢ and 1.8¢ per kWh to wind companies, which thereby significantly off-sets their grid-delivery costs of approximately 4.5¢ per kWh.\textsuperscript{95} The production tax credit is limited to sales of electricity from projects brought on-line within a specific two-year period.\textsuperscript{96} This period has been successively renewed either shortly before or shortly after it expired. However, each new tax credit has to date been limited to installations brought on-line within the new two-year period. The effect is to spur the development of new facilities on a biennial basis. The structure, availability, and timing of the production tax credit limitation, coupled with successive re-

\textsuperscript{89} Boomer v. Atlantic Cement Co., 257 N.E.2d 870 (N.Y. 1970).
\textsuperscript{90} Id.
\textsuperscript{91} Id. at 873.
\textsuperscript{92} See e.g., Storey, 226 S.W.2d at 618.
\textsuperscript{95} Lisa Chavarria, Where One Size Doesn’t Fit All: Contrasting the Methane Gas Lease, Wind Lease and Oil and Gas Lease, in 31ST ANNUAL ERNEST E. SMITH OIL, GAS & MINERAL LAW INST. (2005).
enactments, evince an unmistakable Congressional intent to encourage the continual installation of new utility-grade wind plants and other facilities using renewables.

On the state level, legislation favoring the development of new wind farms usually is in the form of a statute imposing “renewable portfolio standards” (RPS) upon the state’s electric utility companies. Well over a dozen states have such statutes.\(^{97}\) The typical RPS statute requires that a specified percentage of the electricity sold by a utility be generated by renewable sources.\(^{98}\) Such statutes or regulations promulgated thereunder often have schedules providing for periodic increments in the required percentage.\(^{99}\) Another type of RPS statute applies to generating capacity rather than sales. For example, the Texas statute requires utilities to install or otherwise acquire an additional 2,000 megawatts of generating capacity from “renewable energy technologies” by January 1, 2009.\(^{100}\) Regardless of the type of statute involved, a utility that fails to comply with the RPS requirements may be fined or even have its operating license revoked.\(^{101}\)

RPS statutes are a clear expression of legislative policy promoting and, indeed, requiring the development of utility grade systems based on renewable resources. Such statutes specifically list wind as one of the renewable resources and at least one state, Minnesota, requires that all of the new generating capacity come from wind power.\(^{102}\) It seems highly unlikely that a court would enjoin a utility-grade wind plant in a state with renewable portfolio standards.

\section*{C. Siting Legislation and Guidelines}

Although persons concerned about the potential effect of wind turbines and wind farms upon the enjoyment of their premises may receive little relief under the common law of nuisance, their concerns will almost certainly be addressed in the

\begin{flushleft}
\footnotesize
99. Id.
100. Tex. Util. Code Ann. § 39.904(a) (Vernon 2005). Senate Bill 20, which was passed during the first-called session of the 79th Legislature, provides that the state must obtain 5,880 megawatts of electricity from renewable sources by 2015 and sets a target of 10,000 megawatts by 2025.
\end{flushleft}
near future by ordinances and legislation. As the Cape Wind litigation illustrates, opposition to wind farms tends to develop quickly once such a facility is planned in the vicinity or within the view-shed of residential or tourist areas. The same is true, although on a lesser scale, with respect to individual wind turbines. As a result, many municipalities have enacted ordinances governing the location of small wind turbines producing electricity for on-site use, and several have attempted to ban wind turbines altogether. Overly restrictive ordinances clearly run counter to state net-metering regulations, tax incentives, and loan programs that promote the installation of small renewable energy systems; several states have enacted “wind access” legislation or similar statutes prohibiting municipalities and other governmental units from banning or unduly restricting the installation of such systems.

Increasingly, however, states have gone beyond this approach and have dealt with the issue of siting, usually either through state-sanctioned, albeit non-binding, guidelines, or by specific legislation and regulations. A good example of the first approach is the Model Ordinance for Energy Projects promulgated in 2005 by the Oregon Department of Energy. It exempts “[w]ind turbines intended primarily for residential or agricultural use that have a generating capacity of less than [50] kilowatts and that are less than 200 feet in height.” Wind farms and large single or grouped turbines that are not exempt are subject to the general standards applicable to all energy projects. For example, except in limited situations, they are excluded from “federal and state protected areas” such as parks, wildlife refuges, and scenic areas; they must comply with air safety standards governing the height and lighting of

103. See, e.g., MASON CITY, IOWA, CODE §§ 12-33-1 to 33-8 (2006); SARATOGA, CAL., CODE §§ 15-52.010 to 52.090 (2002).
107. Id. at 6. The accompanying commentary points out that “[fifty] kilowatts” can be replaced with “whatever limit the governing body determines appropriate,” but that in doing so the local government “should consider the generating capacity of commercially-available small-scale wind turbines.”
108. Id. at 13–14.
structures;\textsuperscript{109} and must not interfere with television, radio, or other communication signals.\textsuperscript{110} In addition, the Oregon Model Ordinance contains provisions applicable only to wind turbines.\textsuperscript{111} These include property line setbacks, a requirement that the turbines’ “visual impact” be minimized “to the extent practical,” detailed and highly specific provisions for reducing the impact upon wildlife, and public safety measures, such as ensuring that the sweep of the blades is unobstructed.\textsuperscript{112}

Some states have taken a more stringent approach and have adopted binding siting criteria, either by regulation or statute. North Dakota is a good example of the latter approach. It has enacted legislation setting out criteria applicable to all “energy conversion facilities.”\textsuperscript{113} Restrictions include prohibiting such facilities on parkland, prime farmland, irrigated land, or areas that are critical to the existence of threatened and endangered species or species that are unique or rare to the state. Other sites, such as woods and wetlands, can be built on only if the applicant for a license shows that there is no reasonable alternative. The applicant must also show that the facility’s adverse impact upon agriculture, surface drainage, ground water flows, human and animal health and safety, retail service facilities, and a wide variety of other matters will be at “an acceptable minimum.”\textsuperscript{114}

Although relatively few states have enacted legislation specifically aimed at siting wind facilities, the rate with which wind farms are being constructed and the heightened levels of local opposition to them makes the widespread adoption of such statutes almost inevitable.

II. PROPERTY ISSUES\textsuperscript{115}

Although the location of wind farms has aroused the most public interest and controversy, matters of at least equal legal importance revolve around unresolved questions of property law.

\begin{itemize}
  \item \textsuperscript{109} Id. at 16.
  \item \textsuperscript{110} Id. at 16–17.
  \item \textsuperscript{111} Id. at 25–27.
  \item \textsuperscript{112} See, e.g., id. at 25–26 (noting that Oregon ordinances require wind-energy generators to spread gravel on turbine pad areas to minimize weeds and thus avoid creating habitat for raptor prey, and the use of antiperching devices on transmission line support structures).
  \item \textsuperscript{113} N.D. ADMIN. CODE 69-06-08-01 (2005).
  \item \textsuperscript{114} Id.
  \item \textsuperscript{115} An earlier version of some portions of this section appeared in Ernest E. Smith, \textit{Wind-energy Leases: Prospects and Issues}, in \textit{ADVANCED REAL ESTATE LAW COURSE 19} (State Bar of Texas 2002).
\end{itemize}
Three related issues are likely to arise in the near future, and with one exception, none has yet been litigated. The most important of these is the nature of the landowner’s rights in wind energy. The determination of this issue is relevant to a state’s ability to regulate wind energy, a landowner’s ability to convey, reserve, devise, or otherwise sever wind rights from other incidents of a fee, and the legal nature of the estate created by a wind lease. A second issue revolves around the existence of implied rights in a severed “wind estate” and in a wind lease. Third, at some point courts and possibly legislatures will be asked to resolve controversies between surface uses by wind lessees, including their need for unobstructed wind flow, and conflicting or interfering uses by owners of other interests in the land, including owners of the mineral estate.

A. Legal Rights in Wind

Perhaps the most fundamental legal issue in wind law is the nature of a landowner’s rights in the wind that blows across his land. The resolution of this issue determines to a significant extent a matter of great current practical importance: the type of estate that is or can be created by a wind lease.

1. Landowners’ Rights in Wind

The question of what legal rights, if any, a landowner has in wind is likely to arise in any of several different contexts, including, among many others, the right of the state to regulate and even prohibit the use of wind on private land and the validity of wind-energy reservations in deeds. As with oil and gas at the turn of the twentieth century, developing a theory of landowner rights in wind energy necessarily requires a consideration of the nature of the resource and of analogous bodies of law.

Looking specifically to Texas, Terry Hogwood has pointed out that there are two bodies of law that Texas courts might consider in determining rights in wind.117 These are the law of wild animals and the law of percolating water.118 Under the first, ownership resides in the state until a person reduces the animal to possession in compliance with the law.119 Under the second,
percolating water at Texas common law is owned by the landowner, subject to the rule of capture.

Both of the above ownership theories (ferae naturae and percolating water) initially appear to reach the same results. Both conclude that the owner of Blackacre is required to physically reduce wild animals or percolating waters actually located on its lands to actual, physical possession. However, the theories differ in one significant area. The regulation of wild animals is accomplished due to the fact that all wild animals are deemed to be owned by the State until reduced to possession. The regulation of percolating waters by the Texas Legislature took a constitutional amendment/legislative action. The question is whether wind/wind energy is a natural resource of this State as contemplated by Article XVI, Provision 59 of the Texas Constitution.

Other states might well look to oil and gas law for an analogy. Wind does not share the physical characteristics of solid minerals or of water. It can hardly be deemed part of the fee simple or owned “in place” by a landowner. But this is also the conclusion reached with respect to oil and gas in Oklahoma, Louisiana, California, and several other states. Courts in these states have looked at the “fugitive” nature of oil and gas and concluded that they are necessarily unowned until reduced to possession. This conclusion does not negate the existence of a property right in oil and gas. The landowner has the exclusive right to “capture” oil and gas beneath his land and can deal with it in much the same way as with any other ownership interest.

The reasoning of the Oklahoma Supreme Court in the early case of Barker v. Campbell-Ratcliff Co. is illustrative of this approach. The grantor, which had executed a deed conveying the land, but reserving “all mineral rights . . ., and the right to enter thereon, and to use as much of the surface as may be reasonable for the purpose of extracting the mineral thereon at any time,” later executed an oil and gas lease. Among various other contentions, the grantee’s successor argued that oil and gas were not subject to grant or reservation because they were not

120. Pecos County Water Control and Improvement Dist. No. 1 v. Williams, 271 S.W.2d 503, 505 (Tex. Civ. App.—El Paso 1954, writ ref’d n.r.e.).
121. Fain v. Great Springs Waters of Am., Inc., 1 S.W.3d 75, 75 (Tex. 1999).
122. Hogwood, supra note 117.
123. ANDERSON ET AL., supra note 3, § 1.3.
125. Id. at 469.
susceptible to ownership in the ground.\textsuperscript{126} The court agreed that "owing to the nature of oil and gas they are not subjects of sale, while in place under the land."\textsuperscript{127} Nonetheless, the court explained:

the right to go upon the land for the purpose of prospecting and taking therefrom the oil and gas is a proper subject of sale, and may be granted or reserved . . . . The real subject of the exception and reservation in the deed here was the right to enter upon the land for the purpose of taking possession of the oil by mining and boring for the same.\textsuperscript{128}

Subsequent Oklahoma cases and cases in other exclusive-right-to-take (or "non-ownership") jurisdictions have generally assumed without discussion that the right of a landowner to explore and produce oil and gas is like any other property right. It can not only be reserved, but can also be leased, sold, devised, inherited, partitioned, lost by adverse possession, and held in various forms of multiple ownership, including co-tenancy and life estates.\textsuperscript{129}

It does not seem overly fanciful to suggest that a similar theory can be applied to wind in these states and also in Texas. The right to use or benefit from the wind that blows across one’s land might well be considered an incident of land ownership, analogous to the right to extract oil and gas in non-ownership jurisdictions. States with wind easement statutes\textsuperscript{130} have already implicitly taken this position. If this reasoning is accepted, a landowner has the legal ability to sever wind rights from the underlying fee simple.

This issue is of more than merely theoretical importance. With the decline in agriculture, land in many parts of the Southwest and Great Plains has little income-producing potential other than from the sale of wind-generated electricity. In such situations a landowner may wish to reserve wind rights or devise them to his children. Unless there are "rights" in wind, such severances would be legal nullities. This issue was raised in

\begin{itemize}
\item \textsuperscript{126} Id. at 470.
\item \textsuperscript{127} Id.
\item \textsuperscript{128} Id.
\item \textsuperscript{130} See, e.g., MINN. STAT. § 500.30 (2005); see also MONT. CODE ANN. § 70-17-303 (2005).
\end{itemize}
Contra Costa Water District v. Vaquero Farms, Inc.,\(^{131}\) where the California appellate court upheld the validity of a wind-severance provision that reserved:

\[
\ldots \text{all rights for wind-energy power conversion and the transmission of power generated by wind, including (1) the exclusive and perpetual right, \ldots to develop, construct, install, maintain and operate windpower facilities, including but not limited to windmills, transmission lines and other facilities, necessary or advantageous for the purposes of generating or transmitting electric power from wind on the real property \ldots.}^{132}\]

The same result would arguably apply in Texas and other states. Wind rights would almost incontestably be part of the surface estate. In Texas, both the surface and the mineral estates are divisible into their various components.\(^{133}\) Rights in sand and gravel can be severed from the surface,\(^{134}\) and granite can be severed as a separate estate from the minerals.\(^{135}\) The same should hold true of wind.

2. The Type of Estate Created by a Wind Lease

Wind leases have been executed by landowners in all parts of the country. What is the nature of the estate created by such instruments? The habendum clause of an instrument normally determines the type of estate it creates. The issue becomes somewhat complex, however, when the instrument transfers only a portion of the grantor’s rights in the fee simple and the nature of the grantor’s rights in that portion are as yet undetermined.

A brief look at oil and gas leases may be instructive in this regard. There are many different oil and gas leases used throughout the country, but their differences rarely extend to the habendum clause. Almost without exception, oil and gas leases provide for a primary term of a stated period and continue into a secondary term if production is obtained.\(^{136}\) The secondary terms typically last as long as oil and gas or other hydrocarbons are being produced from the land.\(^{137}\) In spite of this uniformity, the

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131. Contra Costa Water Dist., 68 Cal. Rptr. 2d 272.  
132. Id. at 27.  
133. See generally SMITH & WEAVER, supra note 2, § 3.6 (discussing the substances the are part of the mineral estate and those that are part of the surface estate).  
134. See, e.g., Lazy M Ranch, Ltd. v. TXI Operations, LP, 978 S.W.2d 678 (Tex. App.—Austin 1998).  
136. SMITH & WEAVER, supra note 2, §§ 2.2, 4.3 & 4.4.  
137. Id.}\]
nature of the interest created by an oil and gas lease differs significantly from jurisdiction to jurisdiction. As A. W. Walker Jr. pointed out, “[a]lthough [an oil and gas] lease is everywhere regarded as creating an interest in land there is no uniformity as to the exact nature of this interest.”¹³⁸ One principal factor determining the type of interest created by an oil and gas lease is the jurisdiction’s theory with respect to the lessor’s rights in the oil and gas. In Texas, for example, where a landowner is deemed to own the oil and gas in fee simple absolute,¹³⁹ an oil and gas lease is deemed actually to be a deed that conveys a fee simple determinable in the oil and gas to the lessee.¹⁴⁰

Unlike modern oil and gas leases, today’s wind instruments do not follow a uniform pattern. In this respect, they are roughly analogous to oil and gas leases of ninety or one hundred years ago, when an attorney might draft a fifty-year (or longer) fixed-term oil and gas lease,¹⁴¹ or a “no-term” lease, which allowed the lessee to keep the oil and gas lease in effect indefinitely merely by paying a periodic rental,¹⁴² or an instrument closely approximating the modern oil and gas lease.¹⁴³ In the early days of the oil industry, the problem of determining the nature of the interest resulting from the widely different types of oil and gas leases then in use was compounded by uncertainty over the nature of the landowner’s interest in the underlying oil and gas. Today, as discussed in the preceding section, that same uncertainty exists with respect to the nature of the landowner’s interest in wind.

Nonetheless, the bulk of the “nature of estate” issues discussed and resolved in Texas with such success by A. W. Walker, Jr.¹⁴⁴ in the 1920s and 1930s may be somewhat less likely to arise under today’s wind leases. There is little room to doubt the right of a surface owner to grant access to the land for any legitimate use, including generating electricity from the wind flow on his or her property. Even if a court looks primarily to the ferae naturae or wild-animal analogy, under which wind would be

¹³⁸. See A. W. Walker II, supra note 1, at 563.
¹⁴⁰. Cherokee Water Co. v. Forderhause, 641 S.W.2d 522 (Tex. 1982); see SMITH & WEAVER, supra note 2.
¹⁴¹. See the lease in Gulf Oil Corp. v. Southland Royalty Co., 496 S.W.2d 547 (Tex. 1973).
¹⁴². See the leases in Southern Oil Co. v. Colquitt, 69 S.W. 169 (Tex. Civ. App. 1902, writ ref’d); Nat’l Oil & Gas Pipe Line Co. v. Teel, 68 S.W. 979 (Tex. 1902).
¹⁴³. For discussions of early forms of oil and gas leases, see James A. Veasey, The Law of Oil and Gas, 19 MICH. L. REV. 161 (1920); A. W. Walker I, supra note 1, at 8–11.
owned by the State, a landowner can still execute wind leases, just as landowners execute valid hunting leases. If such leases conform to state regulations, there seems little reason to doubt their validity or enforceability. Whether a wind lessee will be willing to make the investment required for a wind plant under such a theory is, however, open to some doubt.

If a court relies on the analogy to rights in water or to the non-ownership theory of oil and gas, there will be an ample body of law to look to in determining the nature of the estate created by a wind lease. Questions over the nature of the lessee’s estate will still arise, however, because of the lack of standardization of wind leases. In some instances the nature of the estate will be obvious. If the instrument has a specified maximum duration, such as twenty years, it is clearly a tenancy for years of the surface, just as a fixed-term agricultural lease is a tenancy for years of the surface and, by way of analogy, just as early oil and gas leases with definite terms were tenancies for years of the mineral estate. The addition of renewal options does not change this classification. The nature of the estate may be further confirmed by the language of the granting clause, which “demises and leases” the premises. Other options are, of course, available, and are occasionally used. These included an outright conveyance of the surface in fee simple absolute.

Alternatively, a wind lease could be modeled on the standard oil and gas lease. Such a lease would have an initial, relatively short “primary” term during which the lessee has the right to erect wind turbines and associated installations, power lines, roads, etc., and a secondary term that lasts “as long thereafter as wind energy is being profitably produced.” The economic considerations that led oil and gas companies to prefer an oil and gas lease with an indefinitely long secondary term are present in the wind-energy industry. Both drilling and wind-turbine installation are up-front capital intensive. Even a rather modest wind farm of two dozen or so wind turbines would require an initial investment of well over twenty million dollars. Like an oil and gas lessee, a wind-energy lessee might want an indefinitely long period in which to recoup its initial capital investment, make a profit, and continue development if new technology and demand for wind-generated electricity supports

145. See, e.g., Bockelmann v. Marynick, 788 S.W.2d 569 (Tex. 1990); Willis v. Thomas, 9 S.W.2d 423 (Tex. Civ. App.—San Antonio 1928, writ dism’d w.o.j.).

146. See, e.g., California Energy Commission, http://www.energy.ca.gov/distgen/equipment/wind/cost.html (“Large scale wind farms can be installed for about $1,000/kWh.”) (last visited Nov. 12, 2006).
such development.

If a wind lease is modeled on the standard oil and gas lease, there will be considerable uncertainty in many jurisdictions over the nature of the estate created. As noted above, in Texas, instruments using similar language for oil and gas create fees simple determinable in the underlying oil and gas estate. This result is premised upon the long-settled doctrine that a Texas landowner owns the oil and gas in fee simple absolute and can sever that interest from the rest of his or her estate. Rights in wind, however, are clearly part of the surface estate. Rights in surface substances, such as limestone, sand, and gravel can be severed and conveyed in fee simple apart from the rest of the surface, but these substances are susceptible of ownership and are, indeed, owned in fee simple along with the rest of the surface prior to severance. Since the landowner does not “own” the wind in fee simple, the estate created by a conveyance or lease intended to last indefinitely cannot be viewed as a fee simple determinable in the wind itself.

One possibility is to view it as a conveyance of an interest in the surface described in the instrument. Under this approach, an “as-long-as” wind-energy lease might be deemed to transfer a theoretically infinite defeasible fee in the surface; a result almost certainly unintended by the lessor. If viewed as simply a form of lease, the lessee may encounter the common law doctrine, still adhered to in some jurisdictions, that such a lease of an indefinite duration creates a tenancy at will, terminable at any time by either party. A more acceptable approach would be to view such an instrument as creating a determinable profit à prendre or easement that gives the grantee the right to “harvest” wind for an indeterminate period.

There are safer and more certain alternatives. One alternative would be for the landowner to take a more direct approach and grant a wind-flow easement over the part of his land that is to remain free of obstructions or topographical changes that could affect wind velocity, direction and constancy.

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147. Stephens County v. Mid-Kansas Oil & Gas Co., 254 S.W. 290 (Tex. 1923); Cherokee Water Co. v. Forderhause, 641 S.W.2d 522 (Tex. 1982); SMITH & WEAVER, supra note 2, § 2.2.


149. See generally 53 A. JUR. 2D Mines § 177 (2006) (“A grantee of the minerals underlying the land becomes the owner of them.”). The mineral owner cannot own the wind because wind is not a mineral underlying the land. See id.

This grant could be coupled with a grant in fee or a long-term lease of the geographic area where the installations would be placed. The same result could probably be reached by a deed in which the landowner conveyed a specified area to be used for wind-energy installations and then covenanted for himself, his heirs, successors, and assigns not to use or alter the tract he retained in any way that would affect wind flow. The easement device is apparently used in some jurisdictions and might also be appropriate where the owner of a wind farm wished to obtain a binding and enforceable commitment from an adjacent landowner not to use or alter his land to the detriment of the wind farm. Indeed, such an arrangement might be part of the lease “packet.” The lease would cover the area to be occupied by the wind turbines and associated installations and the landowner’s agreement not to obstruct the wind flow from adjacent lands would take the form of a negative easement, i.e., a “wind non-obstruction easement.”

**B. Implied Rights**

Does the owner of the wind “estate” or the lessee of rights derived from that estate have any rights of surface use other than those set out in the instrument creating the interest? Conversely, will a court imply covenants for the benefit of a wind lessor, or is he limited to the express terms of the agreement? If traditional bodies of law are applied to wind leases, it seems somewhat more likely that a wind lessor will receive the benefit of implied covenants than that the owner of the wind estate or a wind lessee will receive implied rights of surface use.

1. Implied Rights of Surface Use

Whether rights of surface use will be implied, either in the context of a severed “wind estate” or a wind lease is a question that is certain to arise. As a cursory reading of early mineral deeds and oil and gas leases makes clear, drafters of instruments for an industry that is in its earliest stages are necessarily unable to foresee the full extent of the rights that the grantee or lessee will need in order to fully carry out the purpose of the grant. These omissions in early mineral deeds and oil and gas leases were rectified by implication. Grantees of the mineral estate and lessees of that estate were given extensive implied rights to use the surface and subsurface in all ways that were reasonably necessary for conducting operations contemplated by

the transaction.\textsuperscript{152} Will equivalent rights be implied in favor of grantees and lessees of the wind estate?

Although there is obviously considerable room for disagreement on this issue,\textsuperscript{153} the more probable answer seems to be “no.” The doctrine that instruments should be construed to effectuate their purpose is, of course, universally recognized, but several reasons suggest that the broad array of rights implied in the oil and gas context will not be implied in a wind context.

As an initial matter, it should be noted that the wide range of implied rights of surface use accorded owners of the mineral estate and oil and gas lessees, including the right to conduct geophysical surveys, construct roads, erect storage tanks, and use both surface and subsurface water, is based primarily on the dominant estate theory.\textsuperscript{154} The mineral estate is dominant with respect to the surface estate. The wind estate and the wind lease are unquestionably not carved from the mineral estate, but from the surface estate. There are few situations outside the oil and gas and mineral context in which a grantee or lessee is accorded implied rights to do whatever is consistent with ordinary custom and usage. Indeed, even in the case of oil and gas leases, the Texas Supreme Court has shown increasing reluctance to imply rights and duties in favor of the parties to the transaction. As that court stated in \textit{HECI Exploration Co. v. Neel}, “courts cannot make contracts for [the] parties,” and will imply rights and obligations only if the express terms of the contract make it clear that the parties so obviously contemplated the right or duty “that they deemed it unnecessary to express it,” or if it is essential to imply a right or duty “in order to effectuate the full purpose of the contract as a whole as gathered from the written instrument.”\textsuperscript{155} Although the court was addressing a claim by a lessor, the court’s statement that it would not imply rights and obligations merely to achieve a fair contract, or to remedy an “unwise or improvident contract,” seems equally applicable to both parties.\textsuperscript{156}

In other contexts these same limitations upon implied rights apply. Consider, for example, a grantor or grantee who fails to include express rights of access and use in a deed or lease and whose access to a public road is problematic. There are two bases for implying a right of access, and both are narrowly construed.

\textsuperscript{152} SMITH \& WEAVER, \textit{supra} note 2, §2.1(B)(1).
\textsuperscript{153} See Chavarria, \textit{supra} note 151, at 837–40.
\textsuperscript{154} SMITH \& WEAVER, \textit{supra} note 2, §2.1(B)(1).
\textsuperscript{155} HECI Exploration Co. v. Neel, 982 S.W.2d 881, 888–89 (Tex. 1998).
\textsuperscript{156} \textit{Id.} at 889.
The first basis is an implied right based upon pre-existing use. This argument for an implied easement is typically invoked by a landowner who has some access to a public road but prefers to use a different and more convenient access road or driveway that crosses neighboring land and connects the claimant’s tract to a public road. In the absence of an express grant of a right-of-way over the road, the claimant must show an initial unity of ownership of the two tracts and the existence of a roadway of some degree of permanence and obviousness at the time the tract was divided.\textsuperscript{157} He must also establish that his use of the roadway is “reasonably necessary” for ingress and egress to his land.\textsuperscript{158} Some courts have refused to imply such an easement in favor of the grantor unless the easement is strictly necessary for access to the grantor’s retained land.\textsuperscript{159} Indeed, if there is no pre-existing road, the owner of a tract, whether grantor or grantee, can acquire an easement across adjacent land only by turning to the second basis for an implied easement: strict necessity. His tract must be completely landlocked. Even in that situation, the claimant must show an initial unity of title of his land and the proposed servient tract, and that the division of the originally larger tract resulted in his landlocked position.\textsuperscript{160} The claimant is limited in his use to only so much of the servient estate as is necessary for ingress and egress.\textsuperscript{161}

Of equal significance for the existence or non-existence of implied rights is the doctrine that express language in a deed or lease negates the existence of implied rights dealing with the same subject.\textsuperscript{162} Wind leases often limit the lessee to the uses specifically listed and may, indeed, further limit the lessee’s discretion by describing the types of installations authorized. Such specificity would seem to leave little room for implied rights. Moreover, although a wind lessee, like an oil and gas lessee, would presumably be entitled to place its installations anywhere on the leased premises, a lease designation of the


\textsuperscript{158} See, e.g., Granite Properties Ltd. P’ship v. Manns, 117 Ill. 2d 425, 512 N.E.2d 1230 (1987); Restatement (First) of Property §§ 474–76 (1944); Restatement (Third) of Property: Servitudes § 2.12 (2000).


\textsuperscript{162} See, e.g., Freeport Sulphur Co. v. Am. Sulphur Royalty Co. of Texas, 6 S.W.2d 1039 (Tex. 1928); Gulf Prod. Co. v. Kishi, 103 S.W.2d 965 (Tex. 1937).
specific area where the turbines and other structures can be located may eliminate this option. Even without such a designation in the lease or deed, the lessee’s initial choice of location and erection of structures may preclude any subsequent movement to some other location.

2. Implied Covenants

There seems a somewhat greater likelihood that rights will be implied in favor of wind lessors than in favor of lessees or of owners of a severed wind estate. We might once again look to oil and gas law, where the doctrine of implied covenants in oil and gas leases provides some insight into whether covenants will be implied in wind leases, and, if so, what kind. As with so many other aspects of the oil and gas lease, the underlying rationale for implying covenants was stated most clearly and most succinctly by A. W. Walker, Jr., who argued that because the prospect of royalties was the primary inducement for a landowner entering into an oil and gas lease, certain obligations on the part of the lessee must necessarily be implied in order to effectuate the lease’s basic purpose and the parties’ intent.  

[S]ince the lease makes the payment of this compensation to the lessor dependent upon the diligence and care with which operations are conducted by the lessee, the parties must have intended that these operations would be conducted with a reasonable regard for the interest of the lessor and not solely from the selfish standpoint of the lessee.

The doctrine of implied covenants is not limited to oil and gas leases. Indeed, several of the most influential cases on the subject do not involve oil and gas leases at all. One of the earliest Texas Supreme Court decisions on the subject is *Freeport Sulphur Co. v. American Sulphur Royalty Co. of Texas*, which involved a conveyance of land containing sulfur deposits. The grantors received an initial cash payment and a right to royalties based on a stipulated amount per ton of sulfur mined. The grantee also expressly agreed to build and operate a specific type of plant on the premises within eighteen months of the

164. Id.
165. Freeport Sulphur Co., 6 S.W.2d at 1039.
166. Id. at 1040.
conveyance. After several years of operation the grantee closed the plant and the grantors sued for breach of an implied covenant of reasonable development. Their complaint was directed both at the plant closure and the grantee’s failure to construct additional plants. The court agreed that the doctrine of implied covenants could be applied outside the oil and gas context, “where the terms of the contract of sale make its application necessary to effectuate the purposes fairly evident in the writings.” The court then reasoned that no duty to develop additional sulfur plants could be implied because the deed contained an express requirement that the grantee erect “a complete one-unit plant.” This express language precluded implying any other duties dealing with the same subject. On the other hand, since the grantor was to receive royalties from the operation of the plant expressly required by the deed, it was necessary to imply a duty of continuous operation of the plant so that the grantor could receive his bargained-for royalties.

_Freeport Sulphur_ suggests the possibility of implying two related covenants in a wind lease: a duty to continuously operate the turbines (i.e., to stay in business on the lessor’s premises) and a duty to install as many wind turbines as is reasonable in the context of the topography, wind-speed, and market. To an oil and gas lawyer, the latter implied obligation would be closely analogous to the implied covenant of reasonable development. At least one more covenant might also be suggested: to use new and appropriate technology.

Are courts likely to imply such covenants in wind leases? The duty to continuously operate the wind turbines provides a good illustration of the issues that may arise if wind lessors argue for implied obligations. In the context of oil and gas law, this duty would be analogous to the covenant to operate a well so long as its operation produces sufficient income to pay for operating costs and yield some reasonable amount in excess thereof. The commentators who have discussed this implied covenant view it as a subset of the catch-all covenant to conduct operations with reasonable care and diligence, or, under the classification scheme proposed by Richard W. Hemingway and adopted by the Texas Supreme Court in _Amoco Production Co. v._

167. _Id._
168. _Id._ at 1043.
169. _Id._
The oil and gas case most commonly cited in support of a duty to continue reasonable operations is *Gallaspy v. Warner*. The doctrine is certainly not limited to oil and gas. It is also commonly encountered in the context of agricultural, commercial, and retail leases where rent is set as a portion of the production or of the proceeds from sales. In agricultural leases where the rent is a fraction of the lessee’s crop, the implied obligation to cultivate the premises in a proper and “farmer-like manner” has been recognized for over a century. The leading Texas case dealing with a lease of retail space is *Marvin Drug Co. v. Couch*, which involved a five-year lease of a drug store with the rent set as five percent of gross proceeds during the first year of operation and six percent of gross proceeds during the last four years of the term. The plaintiff successfully argued that the defendant lessee was subject to an implied covenant to “operate the drug store on the premises in the usual and customary manner in which drugs stores in that vicinity were operated” and that defendant had breached that obligation by shortening the hours of operation, abandoning curb service for clients, and failing to maintain an adequate stock of merchandise. The court rejected the defendant’s argument that it was justified in changing its mode of operation in order to minimize the losses from a failing venture that had been unprofitable almost from the beginning. The court stated, “[t]he contract contained no provisions permitting lessee to abridge its operations or its legal duty to lessor in event of losses; and performance cannot be excused by the fact that contract was profitless and expensive.”

Case law in Texas and elsewhere clearly does not limit the implied covenant to operate and remain in operation to product-specific situations. *Freeport Sulphur* is commonly cited in oil and gas cases. *Marvin Drug Co.* relies both on *Freeport Sulphur* and *Brewster v. Lanyon Zinc Co.*, which may reasonably be viewed as the first case clearly articulating the rationale for implying

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174. See, e.g., Cammack v. Rogers, 74 S.W. 945, 948 (Tex. Civ. App.—Austin 1903, writ ref’d).
175. Marvin Drug Co. v. Couch, 134 S.W.2d 356 (Tex. Civ. App.—Dallas 1939, writ dism’d judgm’t cor.).
176. Id. at 358.
177. Id.
178. Id. at 361.
179. Id.
180. Id. (citing Brewster v. Lanyon Zinc Co., 140 F. 801 (8th Cir. 1905)).
covenants in oil and gas leases. Because all of these cases, along with the share-cropping litigation, base the covenant upon the existence of a percentage of profit/product rent, it is reasonable to assume that some equivalent covenant will be implied in wind leases that provide for a royalty set solely as a fraction of proceeds from the sale of electricity.

The likelihood of an implied operations covenant is diminished if the wind lease provides for periodic rentals in addition to those based on a fraction of sale proceeds. It will be diminished even further if the wind lessor, like many oil and gas lessors, includes a minimum royalty provision. Such a provision might read somewhat as follows:

c. Minimum Royalty. Within forty-five (45) days after the end of each calendar year in the Lease Term commencing with the calendar year _____, Lessee will pay Owner the positive difference, if any, between (i) $______ for the calendar years ______, $______ for the calendar years ______, and $______ for the remainder of the Lease Term; and (ii) the aggregate of Royalty for such calendar year.

In all probability, such a minimum royalty provision negates the implication of a continuous operations covenant. Indeed, virtually every court that has considered the issue has concluded that a provision for a minimum rent negates any implied covenant of continuous operation that otherwise might arise from the basic percentage-of-proceeds rent.\footnote{E.g., Lippman v. Sears, Roebuck & Co., 280 P.2d 775, 781 (Cal. 1955); Piggly Wiggly S., Inc. v. Heard, 405 S.E.2d 478, 479 (Ga. 1991); Weil v. Ann Lewis Shops, Inc., 281 S.W.2d 651, 654 (Tex. Civ. App.—San Antonio 1955, writ ref’d).}

A somewhat similar analysis might be made of the other two suggested implied covenants. If the parties have expressly dealt with an issue, courts are generally quite reluctant to imply any additional obligations dealing with the same matter. Hence, an implied obligation to reasonably develop by erecting as many wind turbines as reasonably prudent would presumably be negated by an express provision specifying the number of turbines, just as an express provision stipulating the number of wells to be drilled would negate a reasonable development covenant in an oil and gas lease.\footnote{See, e.g., Gulf Prod. Co. v. Kishi, 103 SW.2d 965, 969 (Tex. 1937).}  Similarly, it is at least arguable that an express description of the type of turbines and associated installations required of the lessee would negate any obligation to use or adopt new technology subsequently developed by the industry.
C. Conflicts Over Competing Surface Use

The interest received by a wind lessee or grantee requires not only that the lessee or grantee be able to install wind turbines and other facilities, such as road and transmission lines, but also that a large swath of adjacent space be kept free of structures, excavations and piles of earth or fills that would obstruct or change the flow of wind. If there is a conflict over competing surface use or non-use between the wind lessee or grantee and the owner or lessee of other interests in the surface or mineral estate, who is likely to prevail?

1. Conflicts Between the Wind Lessee and Mineral Estate Owner

The nature of the interest received by a wind lessee, grantee, or devisee precludes reliance on the doctrine commonly invoked by mineral owners and oil and gas lessees in support of their right to use the surface or subsurface even though such use disrupts existing or potential use by the lessor: the dominance of the mineral estate.183 Regardless of the form or contents of a wind lease, deed, or devise, the instrument is incontestably not a transfer of mineral rights. In a controversy between a wind lessee and an oil and gas lessee or other holder of the mineral estate, the wind lessee would be in essentially the same legal position as an agricultural lessee. Because the mineral estate is dominant, an agricultural lessee whose interest was created after the severance of the mineral estate has no right to prevent oil and gas operations that interfere with his ranching or farming operations.184 This result is virtually always reached in situations where the severance of the mineral rights preceded the grant of the surface lease. What if the surface lease were given first?

The rights of an oil and gas lessee to enter over the objection of the surface tenant is less clear where the surface lease was granted before the oil and gas lease or the creation of the mineral estate. The lack of litigation over this issue may be due to the common practice of oil and gas companies of paying the surface lessee for damages to his crops or grasses and for interference with his operations. However, the few cases that exist suggest that a prior surface lessee cannot prevent development under a subsequent mineral or oil and gas lease . . . .

183. See, e.g., Vest v. Exxon Corp., 752 F.2d 959, 961 (5th Cir. 1985); Sun Oil Co. v. Whitaker, 483 S.W.2d 808, 810–11 (Tex. 1972); Stradley v. Magnolia Petroleum Co., 155 S.W.2d 649, 651–52 (Tex. Civ. App.—Amarillo 1941, writ ref’d).

These results may be justified by analogizing the relationship between the surface lessee and his lessor to that which exists between a surface owner and the owner of a severed mineral estate. Just as the surface estate is subject to an implied easement in the mineral estate, so the surface lease may be deemed subject to an implied easement for mineral extraction retained by the lessor. Such reasoning is bolstered if the surface lessee is expressly limited to grazing rights, raising crops, or other agricultural purposes.\textsuperscript{185}

Because the wind lessee is limited to specified uses, it seems likely that a wind lease would be subservient to the surface rights of a mineral owner and his oil and gas lessee, even though the wind lease was prior in time. Hence, a wind lessee may be subject to the risk that drilling activities will, at least temporarily, have some impact on wind conditions, and that placement and even use of roads and electric lines may have to give way to the needs of an oil and gas lessee.

There are at least two ways in which a wind lessee can deal with this potentiality. The safest would be through express language by which the landowner covenants to include provisions in oil and gas leases that protect the location of wind turbines, other installations, roads, etc. from interference by the oil company and its assigns. This alternative is realistic only if there is no outstanding oil and gas lease on the premises and the lessor owns a sufficiently large fraction of the mineral estate that his joinder in a lease is essential to any subsequent oil and gas development. However, many wind lessees may find that the land they wish to lease is already subject to an oil and gas lease or that their lessors own only the surface. In such situations, a wind lessee might at least expect to receive the benefit of the accommodation doctrine. This doctrine requires an oil and gas lessee to accommodate existing surface uses where such accommodation is reasonably possible, consistent with industry practice, and practicable within the confines of the premises.\textsuperscript{186} It has generally been applied in controversies between an oil and gas lessee and the owner of the surface, but there is no apparent doctrinal barrier to applying it in favor of a surface lessee that

\textsuperscript{185} SMITH & WEAVER, supra note 2, § 2.3(B)(2)(a) (citing Ball v. Dillard, 602 S.W.2d 942 (Tex. 1980)). See also Hagar v. Martin, 227 S.W.2d 195 (Tex. Civ. App.—Dallas 1955, writ ref’d n.r.e.); Mobil Pipe Line Co. v. Smith, 860 S.W.2d 157 (Tex. App.—El Paso 1992, writ dism’d w.o.j.).

\textsuperscript{186} Tarrant County Water Control and Improvement Dist. No. 1 v. Haupt, Inc, 854 S.W.2d 909, 912 (Tex. 1993); Whitaker, 483 S.W.2d at 810; Getty Oil Co. v. Jones, 470 S.W.2d 618, 621 (Tex. 1971).
has expended significant funds in erecting and maintaining the expensive installations and associated infrastructure required for wind-generated electricity.

2. Conflicts Between the Wind Lessee and the Lessor

It seems doubtful that the accommodation doctrine would apply to conflicts between the wind lessor and the wind lessee. Under traditional landlord-tenant law, a lessee that is not in default is entitled to the exclusive use and possession of the premises for the duration of the lease term, and the lessor has no right to enter the premises unless there is express authorization in the lease agreement. If courts hold these doctrines applicable to wind leases, the lessor’s right of concurrent use of the space leased, including the large amount of space not actually occupied by the wind lessee’s turbines, roads, and other installations, will be limited to the express contractual conditions that the lessor includes in the lease.

As a practical matter, it seems unlikely that a wind lessee will object to livestock grazing or most forms of farming. In any event, a wind lessor would probably be well advised either to limit the wind lease to the area to be occupied by the turbines, installations, etc. and grant a “non-obstruction” easement, limited in time to the duration of the wind lease, over the remaining land, or if all or a significant portion of his ranch is covered by the wind lease, to include specific rights of entry and agricultural use of the areas not actually occupied by the wind lessee. By the same token, any new agricultural lease or renewal of an existing agricultural lease should exclude the area to be physically occupied by the wind lessee’s installations and be made expressly subject to the wind lessee’s pre-existing and superior rights in unoccupied acreage covered by both leases.

Hunting leases present a potentially more contentious issue. In many portions of Texas, hunting leases are an essential supplement to a landowner’s agricultural income and may be of considerable more value than grazing leases. Unlike oil and gas lessees, which seem long ago to have reached a reasonable accommodation with most traditional uses of rural land, representatives of wind lessees may reflect a more urbanized outlook and have far greater concern about the presence of firearms on leased property. In other words, a wind lessee may want to exclude all hunting in the area covered by its lease and a limitation on hunting within a certain distance of this area. At a

minimum, a wind lessee is likely to insist on some restrictions on hunting within the leased area.

III. CONCLUSION

The rapid growth of the windpower industry in the coming years will present a wide range of legal issues, just as the oil industry has throughout its century-and-a-half existence. However, issues of location and a determination of what property rights are held in wind are among the first issues that courts and legislatures must address. Regulations or guidelines for wind plant siting that provide protection for residential neighborhoods, scenic views, recreational areas, historic sites, wildlife, and environmentally sensitive areas are essential if there is to be an acceptable level of public support for such facilities. A settled body of real-property law is equally essential if companies and individuals are to feel sufficiently secure in and certain of their rights that they are willing to make the investments necessary to gain the benefits of wind energy.