

NOTE & COMMENT

ENERGY FROM ABOVE AND BELOW WHO WINS WHEN A WIND FARM AND OIL & GAS OPERATIONS CONFLICT?

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I. INTRODUCTION

The wind industry, although still young, is growing rapidly throughout the United States and the world. In no place is this growth more visible than in Texas, which recently surpassed California as the state with the most electricity generated from wind power.² Texas has long been known as an oil and gas state, but now that this new energy industry has arrived, conflicts between wind and oil and gas operations are likely to occur. This note asks the question: what risks to the developer, financing parties, power purchasing utility, and the ultimate owner of the wind project exist as a result of existing or potential oil and gas activities located on the same land as the wind farm? Although written from the perspective of

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2. The Wind Coalition, Texas Overtakes California as U.S. Leader in Wind Power Installations (July 25, 2006), http://www.windcoalition.org/news_page.php?tableName=News&id=36.

those with interests in the wind farm, it is also applicable to those who have an interest in oil and gas operations and want to know what risks those operations might encounter by operating near a wind farm.

II. WIND FARM OVERVIEW

Building a wind farm is an incredibly capital-intensive undertaking. The turbines alone cost around \$1 million per megawatt of installed generating capacity.³ Other major civil infrastructure costs include the foundations for the turbines, the roads, the meteorological towers, and an operations and maintenance building often located on site. In addition, there are large electrical infrastructure costs including the project substation(s), overhead transmission line, underground electrical collection system, and a padmount transformer for each turbine.⁴ Including development and financing costs, a utility-scale wind development typically costs in the range of \$1.5 - \$2 million per megawatt of capacity installed,⁵ and new wind farms in Texas tend to range from about 100 to 300 megawatts.⁶

Many parties have reason to worry about the potential risk of oil and gas operations to the wind project. Typically, a developer owns the project while it is being planned and will worry about the leases they have obtained losing value if the potential project could likely be interfered with. Investors in the project, particularly those unfamiliar with wind or oil and gas operations in Texas, tend to be most concerned about possible outside interference from operations such as those conducted by oil and gas companies. If a potential investor finds it likely that an oil and gas project could interfere with the leased land, those leases become much less valuable. Depending on the perceived risk, the investors might demand a risk premium of some sort to offset the potential issues. The

3. Am. Wind Energy Ass'n, Wind Energy Fact Sheet: 10 Tips on Building a Wind Farm, http://www.awea.org/pubs/factsheets/10stwf_fs.pdf (last visited June 1, 2008); UNIV. OF N.D. ENERGY & ENVTL. RES. CTR., HARVESTING THE WIND: A LANDOWNER'S GUIDE TO WIND ENERGY DEV. IN THE GREAT PLAINS 3, http://www.undeerc.org/wind/literature/wind_brochure.pdf (last visited June 1, 2008); Windustry, How Much Do Wind Turbines Cost?, <http://www.windustry.org/how-much-do-wind-turbines-cost> (last visited June 1, 2008).

4. Padmount transformers are required for most, but not all, brands of wind turbines.

5. Greg Chang, *Edison International to Triple Wind Power by 2009*, BLOOMBERG, May 9, 2007, <http://bloomberg.com/apps/news?pid=20601072&refer=energy&sid=aAlulrCdRXf0>. Edison said it typically spends \$1.6 million to \$1.8 million for each new megawatt of wind power capacity.

6. Am. Wind Energy Ass'n, U.S. Wind Energy Projects: Texas, <http://www.awea.org/projects/projects.aspx?s=Texas> (last visited June 1, 2008). However, there are several much larger existing projects, such as the biggest Texas wind farm, the 735 MW Horse Hollow Wind Energy Center. *See id.* Wind farms will likely continue to grow in size in the future as demonstrated by the 4,000 MW wind project T. Boone Pickens is developing in the Texas Panhandle which will be the world's largest wind farm once completed. Renewable Energy World, Mesa Power Places 1,000-MW Wind Turbine Order with GE, May 16, 2008, <http://www.renewableenergyworld.com/rea/news/story?id=52500>.

utility that purchases power from the wind farm also has an interest in ensuring reliable electrical output from the project onto its grid.

III. WIND LEASES AND THE MINERAL ESTATE

One of the unique aspects of wind farms is the large amount of land required for a project. Although the actual infrastructure has a small footprint,⁷ the turbines must be adequately spaced out to reduce turbulence and maximize electricity generated from the wind.⁸ A wind project could easily lease land from 20 to 40 landowners, and possibly more.⁹ One 160 megawatt wind project, for example, leased approximately 16,000 acres of land.¹⁰ Furthermore, a wind project generally requires wind non-obstruction easements for at least one mile upwind of all turbines. These easements prevent tall objects that would affect wind flow from being placed or built upwind of the turbines. Wind farms may also require transmission and road access easements. The expansive land requirements of a wind farm and the large number of leases and easements mean that a wind project deals with a volume of real estate instruments and survey and title work that is much larger than a typical real estate deal.¹¹

The title work necessary for a wind farm is extensive due to the large amount of land involved, but it can become even more cumbersome when the land is not owned by one party. In Texas, land may be divided into a surface and mineral estate.¹² The mineral estate can be severed by a grant of the minerals in a deed or lease, or by reservation in a conveyance.¹³ Wind rights are part of the surface estate.¹⁴ While one party may own both the mineral and surface estates, oftentimes, particularly in Texas, the mineral rights will have been severed long before the wind developer ever arrives on the scene. The challenge is that, in Texas, the mineral estate is the dominant estate¹⁵ because the

7. AM. WIND ENERGY ASS'N, WIND ENERGY FACT SHEET: WIND ENERGY – HOW DOES IT WORK? 2, http://www.awea.org/pubs/factsheets/Wind_Energy_How_Does_It_Work.pdf (last visited June 1, 2008).

8. John Dunlop, *Keeping the Electrons Flowing*, WINDLETTER (Am. Wind Energy Ass'n, Washington D.C.), Dec. 2007, at 3, http://www.awea.org/windletter/122307_AWEA_WL.pdf.

9. See Brent G. Stahl, *Wind Development: Key Survey and Title Issues*, 2007 WIND ENERGY INST. 1.

10. EMG Completes 161 MW Wind Project in Texas, RenewableEnergyAccess.com, May 15, 2007, <http://www.renewableenergyaccess.com/rea/news/story?id=48512>. The Wildorado Wind Ranch™ is located west of Amarillo in the Texas Panhandle.

11. Stahl, *supra* note 9, at 1.

12. Moser v. U.S. Steel Corp., 676 S.W.2d 99, 101 (Tex. 1984); see Humphreys-Mexia Corp. v. Gammon, 113 Tex. 247, 255, 254 S.W. 296, 299 (1923).

13. Moser, 676 S.W.2d at 101.

14. Ernest E. Smith, *Wind Energy: Siting Controversies and Rights in Wind*, 1 ENVTL & ENERGY LAW & POL'Y J. 281, 303, 306 (2007).

15. Getty Oil Co. v. Jones, 470 S.W.2d 618, 621 (Tex. 1971); Humble Oil & Refining Co. v. Williams, 420 S.W.2d 133, 134 (Tex. 1967).

mineral rights would be useless without the right to use the surface to access the minerals.¹⁶ The policy justification for this broad grant of rights to the mineral owner is that the public has a common interest in protecting and fostering the development of energy sources which benefit everyone.¹⁷ Thus, the mineral estate has a right to reasonable use of the surface to remove the minerals,¹⁸ and the mineral owner is only held liable to the surface owner for negligent infliction of damage to the surface estate.¹⁹ The definition of minerals is expansive and well-litigated in Texas, but without a doubt the most prominent mineral interests in the state are oil and gas.²⁰ They are also the minerals most likely to interfere with a Texas wind project, and thus are the focus of this paper.²¹ It is clear that a potential investor in a wind project may be very worried about how a mineral estate, and specifically an oil and gas lessee, could interfere with a wind project, thus lowering the value of their potential collateral.

IV. RISKS TO THE WIND FARM FROM OIL & GAS OPERATIONS

Some of the risks oil and gas operations pose to the wind farm are obvious, but there are also risks that may not be readily apparent to someone unfamiliar with Texas law or the wind industry. The most obvious risk to the wind farm is that an oil and gas lessee would want to drill or place pumping equipment at a location where the wind farm has located infrastructure such as a turbine or substation site. However, the footprint of this wind equipment is very small, and it is quite likely that the oil and gas lessee could move their location a few hundred feet and avoid the wind infrastructure without impacting the oil and gas production output. Likewise, if the wind project is not yet built, the wind

16. *Ball v. Dillard*, 602 S.W.2d 521, 523 (Tex. 1980); *Harris v. Currie*, 142 Tex. 93, 99, 176 S.W.2d 302, 305 (1943).

17. Lisa Chavarria, *Wind Power: Prospective Issues*, 22ND ANNUAL ADVANCED OIL, GAS & ENERGY RESOURCES LAW COURSE (State Bar of Tex. 2004) at 6. Of course, protecting and fostering wind development will also lead to the development of energy sources which benefit everyone, so this policy justification for granting oil and gas superior rights is rather weak when those rights are used against another energy source.

18. *Moser*, 676 S.W.2d at 103; *Sun Oil Co. v. Whitaker*, 483 S.W.2d 808, 810 (Tex. 1972); *Humble Oil*, 420 S.W.2d at 134.

19. *Moser*, 676 S.W.2d at 103; *General Crude Oil Co. v. Aiken*, 162 Tex. 104, 106, 344 S.W.2d 668, 669 (1961).

20. A detailed description of the definition and extent of mineral rights is beyond the scope of this note. See *Moser*, 676 S.W.2d at 99; M.C. Cottingham Miles & Ryan M. Sweeney, *So Your Client Thinks He Wants to Buy Only the Surface...*, 31 STATE BAR OF TEX. OIL, GAS, & ENERGY RESOURCES SEC. REP. 2 (2006); DAVID PATTON, SURFACE OWNERS AND THE JETT RINK PROBLEM (2003); and Judon Fambrough, *Minerals, Surface Rights, and Royalty Payments*, TEX. A&M UNIV.: REAL ESTATE CENTER (2007) for more information.

21. For simplicity, oil and gas rights are described in this note as they are the most likely to conflict with a wind farm in Texas due to the magnitude of operations in the state, but similar issues can arise with all minerals that are a part of the mineral estate, and the same laws will apply.

infrastructure could likely be moved slightly to avoid the oil and gas location. However, other oil and gas infrastructure may be harder to move. For example, oil and gas lessees have the power to build pipelines as part of their rights in the mineral estate,²² and pipelines may be harder to route to avoid the wind project.

While the turbines and substation may be fairly easy to avoid, other wind infrastructure may be more difficult to work around once built. Wind turbines are connected to each other and the project substation via a grid of underground electrical collection circuits. These lines generally follow the same layout as the road system, although some circuits may also cut across land in a more direct route to save money and minimize electrical losses by having shorter lines. Because these lines (and many roads) run across the entire project connecting each of the turbines, they may be harder for the oil and gas lessee to avoid.

Another risk wind projects face is whether the oil and gas lessee can easily avoid the overhead transmission line that will be built to connect the project substation with the utility company who will be receiving the power. These lines usually run through very narrow transmission easements that are only wide enough to accommodate the line. Although an oil and gas lessee should be able to avoid a transmission line just as easily as it could avoid a collection line, if there is a problem and avoidance is not possible, the consequences of having to move the transmission line could be very costly. Transmission easements are often more difficult to obtain than wind leases because the wind lessor will receive large royalty payments for having turbines (and the associated collection lines and other infrastructure) on their land, while transmission easements are much less lucrative. Further, many landowners foster concerns about the possible health risks of transmission lines running near their houses and the aesthetic impact of the lines. Some landowners will refuse to grant a transmission easement, even at very high prices. Thus, if an oil and gas project was to require a wind project to reroute the transmission line, the costs of rerouting the line could be very steep indeed.

The most likely element of a wind farm for an oil and gas operator to interfere with is the wind flow of the project. Wind developers use very complex computer models to calculate the amount of energy a wind turbine will likely generate. These models take into account the terrain, including trees, hills, and canyons, as well as all infrastructure on the ground which affects the terrain and, therefore, the wind flow. The wind models are then used to precisely locate each wind turbine for optimal

22. *Delhi Gas Pipeline Corp. v. Dixon*, 737 S.W.2d 96, 98 (Tex. Civ. App.—Eastland 1987, writ denied).

output, and the project is financed based on the model's projected amount of electricity that will be generated. If an oil and gas operator was to place equipment upwind of the turbines, especially tall equipment, the structure could have a significant impact on the wind flow by changing the direction of the wind and creating turbulence. While one piece of oil and gas equipment upwind may not seem like it would make a huge difference, one must remember that many projects are built based on fifteen to twenty year power purchase agreements between the utility and the wind farm.²³ Thus, the electrical output is projected over twenty years, and even a small change in the wind flow that lowers production will create an exponentially larger reduction in production over this twenty-year period. The wind project receives income from the utility for all of the electricity generated, as well as federal production tax credits and state renewable energy credits that bring in income for all electricity generated. It is easy to see how the wind project could suffer a significant loss of income from each of these sources if the electricity generated is reduced. Thus, a change in wind flow that reduces electrical output can lead to a substantial financial impact on the project. In addition, the utility buying the generated electricity expects to receive a certain amount of electricity from the wind farm each year, and a decrease in the wind flow will negatively affect them as well. The wind farm could also end up owing penalty fees if the reduction in electrical production keeps it from delivering the guaranteed minimum output to the utility.

In addition to the ongoing effects on production, the electrical output of the wind project could also be affected on a temporary basis if any of the infrastructure interference situations contemplated above occur. If, for example, the overhead transmission line or project substation had to be moved, the entire project would be out of commission while those changes were occurring. Likewise, if a turbine or collection line had to be

23. Michael Weizman, *Canada: The Wind Power Purchase Agreement*, INDUSTRIAL WIND ACTION GROUP, May 22, 2007, <http://www.windaction.org/news/9712>; SECTION 10: WIND POWER FOR FARMS, at 11, <http://www.greenenergyohio.org/page.cfm?pageId=540> (last visited June 1, 2008). In recent years, shorter agreements have become more common, and projects are even being built with no power purchase agreement in place. These projects instead utilize a Hedge Agreement to guard against fluctuations in the price of energy. See, e.g., North American Windpower, *Airtricity Signs Hedge Agreement For Champion Wind Farm*, http://www.nawindpower.com/naw/e107_plugins/content/content.php?content.1168 (describing the first non-PPA project employing a hedge agreement) (last visited June 1, 2008). See also THE N.Y. STATE ENERGY RESEARCH AND DEV. AUTHORITY, USING WIND POWER TO HEDGE VOLATILE ELECTRICITY PRICES FOR COMMERCIAL AND INDUSTRIAL CUSTOMERS IN N.Y., <http://www.powernaturally.org/About/documents/WindHedgecomplete.pdf> (last visited June 1, 2008). Even without long term purchase agreements in place, the projects are still designed and planned to operate for a minimum of 20-25 years. See Mustafa P. Ostrander, *Wind Power: A Lawyer's Guide to Representing Landowners*, 16 BUSINESS LAW TODAY 6 (2007), <http://www.abanet.org/buslaw/blt/2007-07-08/ostrander.shtml> (stating that modern wind farms have an operating life of 25-50 years).

moved, electrical output from that part of the project would be lost while the move takes place. Both interference and forced moves by the oil and gas operator could lead to reduced electrical generation by the wind farm, and any change to the electrical output of the wind project will affect both the purchasing utility and the owner of the project.

Other aspects of oil and gas operations also pose threats to a wind farm. Oil and gas lessees have the right to conduct geophysical exploration operations including blasting and other seismic operations.²⁴ Depending on the methods used, geophysical testing could pose quite a risk to the wind farm, particularly when you take into account the large and deep foundations necessary to hold the wind turbines in place.

In addition, not only does the wind farm need to worry about interference to the wind project, but also about ways the wind farm might interfere with the mineral estate's dominant rights. As a surface lessee, the wind farm could be held liable for interfering with the mineral lessee's access to the land for reasonable mineral development purposes.²⁵ Particularly during construction, when the risk is highest due to the large amount of construction equipment on site, the wind farm must be careful not to interfere with any oil and gas operations. The wind farm operations staff should also be sure to monitor the oil and gas operations because, unless the oil and gas lease specifies otherwise, the oil and gas lessee is not required to give notice to the surface estate before conducting its operations.²⁶ Thus, the wind operations staff will need to be sure they keep track of any oil and gas operations that might affect the wind farm, and they should prevent the wind farm from interfering with the oil and gas operations.

Clearly the risks to a wind farm as a lessee of the surface are substantial. Because of all the risks to the surface owner and its lessees, once the infrastructure is in place, the Texas courts have provided surface owners with some protection from interference by the mineral estate and oil and gas lessee: the accommodation doctrine.

V. THE ACCOMMODATION DOCTRINE

The mineral estate has long been the dominant estate in Texas, but in 1971 the Texas Supreme Court granted the surface estate some protection by creating the accommodation doctrine, also known as the

24. See *Ball*, 602 S.W.2d at 523; *Parker v. Tex. Co.*, 326 S.W.2d 579 (Tex. Civ. App.—El Paso 1959, writ denied).

25. See *Ball*, 602 S.W.2d at 523.

26. See *Parker*, 326 S.W.2d at 583; Terry I. Cross, *Purposeful Accommodation— Planning for Co-Existent Surface and Mineral Development*, 20 TEX. OIL & GAS L.J. 61 (2006); CHARLES L. BLACK & DIANN WADDILL, *WIND ENERGY DEVELOPMENT IN TEXAS • FROM WHERE THE WIND BLOWS (A LOCAL PERSPECTIVE)* (2007).

alternative means doctrine.²⁷ This doctrine protects existing uses of the land by the surface owner, provided that the mineral lessee has a reasonable alternative to interference with the surface use. However, as at least one author has written, “[the accommodation doctrine’s] benefit is often exaggerated.”²⁸ One practitioner explained, “The doctrine is a judicial, non-statutory concept that requires the mineral owner to act with prudence and to have due regard for the interest of the surface owner in exercising his right to use the surface to produce the minerals. To date, the accommodation doctrine, which was first established in Texas, has also become law in some form in Arkansas, New Mexico, North Dakota, Utah, West Virginia, and possibly Colorado and Wyoming.”²⁹

In the first Texas case to establish the doctrine, the *Getty* court held that,

where there is an existing use by the surface owner which would otherwise be precluded or impaired, and where under the established practices in the industry there are alternatives available to the lessee whereby the minerals can be recovered, the rules of reasonable usage of the surface may require the adoption of an alternative by the lessee.³⁰

In *Getty*, the irrigation system used by the landowner was found to be perhaps the only reasonable means of developing the surface, and the use of alternate pumping installations by Getty, the oil and gas lessee, was found to be a reasonable alternative.³¹ However, the *Getty* court also made it clear that if there is only one means of surface use by which the oil and gas can be produced, the mineral lessee and the mineral owner will not be bound by the accommodation doctrine.³²

The following year, the Texas Supreme Court revisited the subject and clarified that the surface owner has the burden of proving that reasonable alternatives are available to the oil and gas lessee on the leased premises before the accommodation doctrine will be invoked.³³ In *Whitaker*, the court ruled in favor of the oil and gas lessee who was allowed to use fresh water in order to produce oil without paying damages for the water used or crops destroyed because alternative water was not available elsewhere

27. *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621 (Tex. 1971).

28. Patton, *supra* note 20, at 5.

29. Rick D. Davis, Jr., *Accommodation Doctrine*, 32nd ANNUAL ERNEST E. SMITH OIL, GAS, & MINERAL LAW INST. (2006) at 27.

30. *Getty Oil*, 470 S.W.2d at 622.

31. *Id.*

32. *Id.*

33. *Sun Oil Co. v. Whitaker*, 483 S.W.2d 808, 812 (Tex. 1972).

on the premises.³⁴ The reasonable alternative standard was also examined in *Haupt* where the court found that even though there was not a reasonable alternative use for the surface owner's use of the surface, the surface owner failed to prove that there was a reasonable alternative to drilling a vertical well on dry land.³⁵ Alternative types of drilling were available by the time of *Haupt* (directional drilling or drilling from a platform in the lake), but they were prohibitively expensive and so were found not to be reasonable.³⁶ Thus, if the oil and gas lessee does not have any reasonable alternatives available, they may drill, even if drilling will result in interference with the surface owner's use of the land.

Otis v. Haas helped clarify the requirements necessary for courts to find material interference with the surface. The surface owner wished to stop the oil and gas lessee from installing tank batteries on the surface, but the court held that the plaintiffs failed to demonstrate that the proposed location materially interfered with their use of the surface estate.³⁷ The court stated that "inconvenience to the plaintiffs is not a controlling factor" and held that the burden was on the plaintiffs to prove that the use of the surface by the oil and gas lessee was not reasonably necessary.³⁸ Likewise, the recent case of *Davis v. Devon Energy Production Co.* held that more than slight interference by the oil and gas lessee was required for the accommodation doctrine to apply, and it also found that the lessee must destroy or substantially impair the surface use before the court even needed to look at whether the lessee's conduct was reasonably necessary.³⁹ The court found that caliche roads built by the oil and gas lessee would not destroy the surface owner's ability to conduct a profitable farming operation, and so a material interference was not found.⁴⁰

A recent and notable accommodation doctrine case in Texas was denied its petition for review to the Texas Supreme Court,⁴¹ and the holding of the Waco Court of Appeals is quite significant for future accommodation doctrine cases. In *Texas Genco v. Valence*, the surface

34. *Id.*

35. Tarrant County Water Control & Improvement Dist. No. One v. Haupt, Inc., 854 S.W.2d 909, 913 (Tex. 1993), Haupt, Inc. v. Tarrant County Water Control & Improvement Dist. No. One, 870 S.W.2d 350, 355 (Tex. App.—Waco 1994, *on remand*); Jamie Robertson & Becky Ogg, *The Accommodation (or Alternative Means) Doctrine in Texas Case Law*, for presentation to the Houston Real Estate Lawyer's Council, Aug. 2006, at 2.

36. *Haupt, Inc.*, 870 S.W.2d at 355; Patton, *supra* note 20, at 6; David E. Jackson, *Surface Use: The Dominant Estate, Reasonable Use and Due Regard*, 24th ANNUAL ADVANCED OIL, GAS & ENERGY RESOURCES LAW COURSE (State Bar of Tex. 2006) at 12.

37. *Otis v. Haas*, 569 S.W.2d 508, 514 (Tex. Civ. App.—Corpus Christi 1978, writ denied).

38. *Id.*

39. *Davis v. Devon Energy Production Co.*, 136 S.W.3d 419, 424 (Tex. App.—Amarillo 2004, no pet.).

40. *Id.* at 425.

41. *Tex. Genco, LP v. Valence Operating Co.*, 187 S.W.3d 118 (Tex. App.—Waco 2006, pet. denied, reh'g of pet. denied).

owner of a landfill was able to prove that it had an existing use of a cell in the landfill even though waste was not currently being disposed of in that cell.⁴² The court found that if a well were to be drilled in the cell in question, “Genco would have to redesign other cells and lose the use of others.”⁴³ This holding expands the definition of existing use because, although the cell was not yet being utilized, it was part of a system that was in use, and that was sufficient for the court. The court also expanded the reasonable alternative standard for the oil and gas lessee by finding for the first time that directional drilling was a reasonable alternative to straight-hole drilling.⁴⁴ Directional drilling was held to be an “economically viable alternative” that is “an established industry practice.”⁴⁵ Although directional drilling is more expensive than straight-hole drilling, the court held that the projected income from the oil and gas operations was more than enough to warrant directional drilling.⁴⁶ Another case involving the same two parties and virtually identical facts, but a different well location, was decided in early 2008 by the Waco Court of Appeals.⁴⁷ The court once again found directional drilling to be a reasonable accommodation, but notably the court avoided the question of whether drilling from a different lease is a reasonable alternative, stating:

We acknowledge Valence’s complaint about the questionable extension of the accommodation doctrine that would require the mineral owner to use an off-unit (also referred to herein as off-lease) surface location, but we ultimately need not reach that issue because Texas Genco presented legally and factually sufficient evidence of several on-unit locations outside of the landfill’s ash disposal area that the jury could have found to provide Valence reasonable access to its minerals by directional drilling.⁴⁸

The court also provided additional insight into why cells not currently in use at the landfill still meet the existing use requirement as it explained that Valence had drilled other wells, which limited expansion of the landfill in certain directions.⁴⁹ As a result of the two *Valence* cases, in future cases where a different type of drilling is a potential alternative, courts must decide whether the additional costs of the alternative are

42. *Id.* at 124.

43. *Id.*

44. *Id.* at 124-25.

45. *Id.*

46. *Id.* at 125.

47. *Valence v. Texas Genco, LP*, 2008 WL 553220 (Tex. App.—Waco 2008).

48. *Id.* at *4; *See also* HOW DOES IT WORK, *supra* note 7; Dunlop, *supra* note 8.

49. *Valence*, 2008 WL at *5.

reasonable based on the projected income from the oil and gas project. Based on *Valence*, only if the projected income covers the additional costs of using the alternative method will the method be found to be a reasonable alternative. Whether the court may require the wells to be directionally drilled from a location under a separate lease is a matter that remains to be resolved.

A wind farm developer needs to understand how all of the requirements of the accommodation doctrine could impact the wind farm. First it is necessary to understand how the accommodation doctrine helps lower the risk of oil and gas interference to an existing project, including interference with both the infrastructure and the wind flow of the project. According to *Getty*, “ownership of real property includes not only the surface but also that which lies beneath and above the surface,” and “[t]he use of land extends to the use of adjacent air.”⁵⁰ In addition, although the accommodation doctrine has usually been applied to conflicts between the owner of the surface and the oil and gas lessee, “there is no apparent doctrinal barrier to applying it in favor of a surface lessee that has expended significant funds in erecting and maintaining the expensive installations and associated infrastructure required for wind-generated electricity.”⁵¹

A court would certainly find an existing wind farm to be a reasonable use of the land, and interference from oil and gas operations has the potential to impact the project enough to meet the requirement that use of the surface is impacted or precluded by the oil and gas lessee. So the determination of whether the accommodation doctrine applies will likely come down to whether or not the oil and gas lessee has a reasonable alternative available. The *Valence* case expands the reasonable alternative standard by holding that directional drilling can be considered a reasonable alternative. It is very likely under this new standard that the accommodation doctrine will protect existing wind farm operations when oil and gas operations try to interfere by requiring alternative drilling to avoid the wind project.

The risks to a proposed wind farm, however, are much higher than the risks for an existing wind farm. The development periods for wind farms from the time of lease execution to construction and commercial operation are generally short (usually two to five years), and during this period an oil and gas lessee can likely use the surface freely, even if wind development is planned. The *Valence* court found that the accommodation doctrine applied to a future use, but it was a future use that was a part of the design of the overall project that was already in

50. *Getty Oil*, 470 S.W.2d at 621; Patton, *supra* note 20, at 5.

51. Ernest E. Smith, *Wind Energy Leases: Prospects and Issues*, 24th ANNUAL ADVANCED OIL, GAS & ENERGY RESOURCES LAW COURSE (State Bar of Tex. 2006) § 19 at 11-12.

operation, and drilling in the cell in question would not only impact that cell, but many other cells that were part of the operating landfill. A court may be able to find a parallel between *Valence* and a phased wind farm where phase one has already been constructed, especially if the first phase includes infrastructure that will also be used in subsequent phases. In this situation, a wind project could argue that the layouts for the subsequent phases are part of the entire project as a whole, and a court may be persuaded to apply the accommodation doctrine in this scenario based on *Valence*. However, a non-phased, proposed project that has not begun construction, though, will likely not be protected by the accommodation doctrine from interference resulting from oil and gas operations because the doctrine only protects existing uses.

VI. RISK MITIGATION

The accommodation doctrine provides the wind farm with a fair amount of protection, but it does not fully protect the wind farm from interference by the oil and gas operator. There are some preventative measures that wind projects can and should take to protect the project from interference. In this section, the various possible protections are discussed.

The most obvious way a wind farm can protect itself is to obtain a surface waiver from the mineral estate, and, if applicable, the mineral lessee. If the land has not yet been severed into separate surface and mineral estates, this can be accomplished in the wind lease because the lessor owns all the rights to the land. If the lessor feels that he may want to pursue oil and gas operations in the future, then the wind lease should contain language that expressly allows the landowner to pursue these activities, but also protects the location of the wind turbines and all other project infrastructure.⁵² The wind lessee will also want clear language limiting the placement of oil and gas equipment upwind of any turbines, and the lease should address any blasting or seismic operations that could affect the wind project.⁵³

If the mineral estate has a different owner, or if an oil and gas lease is already in effect, then the wind lessee can attempt to obtain a surface waiver or non-interference agreement with the mineral estate and oil and gas lessee.⁵⁴ The agreement should require the oil and gas operator to agree not to disturb the planned wind project in much the same manner as the lease provision explained above. In theory, this waiver is an

52. Roderick E. Wetsel, H. Alan Carmichael & Lisa Chavarria, *Emerging Issues in Texas Wind Energy Law: Leases, Tax Abatements, and Ownership of Wind Rights*, 28 STATE BAR TEX. OIL GAS & ENERGY RESOURCES SEC. REP. 3, 8 (2004); Smith, *supra* note 29, at 11.

53. Black & Waddill, *supra* note 26.

54. Stahl, *supra* note 9, at 4.

excellent solution to lowering the risk of oil and gas to the wind farm. Unfortunately, these agreements are virtually never obtained in practice.⁵⁵ First, it can be difficult to track down the mineral estate owner when the estate has been split among many different owners. In addition, oil and gas leases are often old and the company listed on the lease may have changed names, been bought out, or be otherwise difficult to track down. Further, when the appropriate parties can be located, the negotiation of a surface waiver is typically “all about money.”⁵⁶ Those who hold mineral interests tend to value them highly, and, because their rights are dominant to those of the surface estate, there is little reason for them to offer a surface waiver without receiving generous compensation in return.⁵⁷ In almost all cases, the cost of a surface waiver simply does not make economic sense for the wind project. Generally in Texas, if oil and gas is an issue for the land where a wind project is located, the problem will not be limited to one tract of land because the oil and gas will be located throughout the area. So, surface waivers would have to be obtained for most or all of the project land, and it is easy to see how the cost of these waivers could become prohibitive for a project leasing 10,000 to 20,000 acres, or more, for wind development. As a result, wind farms have typically looked elsewhere to help mitigate the potential risks of oil and gas operations interfering with the wind project.

One potential option for the wind farm is to buy a significant portion of the mineral rights or to gain control of the executive rights. While any owner of an undivided interest may conduct mineral operations, practical economic and risk considerations will generally keep mineral development from occurring against a large mineral owner's wishes.⁵⁸ Thus, if the wind project controlled a significant percentage of the mineral rights, the probability of oil and gas operations interfering would likely be significantly reduced. However, the risk of a small mineral owner drilling would still be a possibility, and, more importantly, like a surface waiver, this option does not come cheaply and is therefore unrealistic for most wind projects.

Developers of projects other than wind, particularly those in urban areas, often have the ability to rely on city or county ordinances, local governmental restrictions, and restrictive covenants and deed restrictions

55. *Id.*

56. Cross, *supra* note 26, at 6.

57. *Id.*; Mineral owners with plans to drill in the future, but who are not yet drilling, may have an interest in a surface waiver because once the wind farm is built, the mineral owner will most likely have to accommodate it. Peter A. Vermillion, Address at the Texas Journal of Oil, Gas, and Energy Law Annual Symposium: Mineral Owner's Right to Use the Surface, the Evolution of the Accommodation Doctrine, Trends Related to Urban Drilling, and Current Battles Being Fought Related to Surface Use (Jan. 25, 2008).

58. Cross, *supra* note 26, at 3; Patton, *supra* note 20, at 6.

which limit where drilling can occur.⁵⁹ In addition, Texas state laws limit drilling operations occurring in and near urban counties.⁶⁰ However, nearly all wind projects in Texas are located in rural counties which fall outside the reach of these restrictions.⁶¹

Title insurance provides wind projects with a more feasible way of mitigating the risk of oil and gas operations. As part of its title insurance package, wind projects may purchase a T-19.1 endorsement.⁶² The T-19.1 endorsement allows title companies to insure the wind project against interference from old oil and gas operations and leases if the wind lessor can verify that oil and gas operations have ceased for enough time that the oil and gas lease has terminated due to its terms.⁶³ In this case, the landowner will be asked to execute an affidavit of non-production to provide the necessary verification.⁶⁴ This endorsement provides the owner of the wind project with coverage against loss “by reason of encroachment of *existing* improvements due to surface entry for mineral development.”⁶⁵ The T-19.1 endorsement is only good against existing structures, so the title policy must be brought current with an as-built survey once construction is complete, and it does not help mitigate the risk of oil and gas operations until this occurs.⁶⁶ The T-19.1 endorsement, while it does help lower the risk when available, cannot be obtained if the title company finds oil and gas operations that are still occurring or a lease that has not yet terminated. In addition, the endorsement only covers the decrease in the value of the real estate rights if oil and gas operations do interfere. Thus, the title insurance company will only pay out damages under a T-19.1 endorsement up to the lesser of the amount of insurance or the value of what a ground lease without the oil and gas defect is worth in that part of Texas.⁶⁷ Lost profits, decreases in wind flow, and the cost of relocating infrastructure are not covered. In

⁵⁹ Cross, *supra* note 26, at 3-4; Patton, *supra* note 20, at 6.

⁶⁰ TEX. NAT. RES. CODE ANN. § 92 (Vernon 2007); 16 TEX. ADMIN. CODE § 3.76 (West 2007) (R.R. Comm’n of Tex., Comm’n Approval of Plats for Mineral Dev.); Jackson, *supra* note 36, at 15. The statute only applies in counties that have a population in excess of 400,000 and in counties with a population in excess of 140,000 that border counties with populations in excess of 400,000.

⁶¹ Roderick W. Wetsel, H. Alan Carmichael, and Lisa Chavarria, *Current Issues in Texas Wind Energy Law 2007: Leases, Ownership of Wind Rights and Litigation*, 29TH ANNUAL ADVANCED REAL ESTATE LAW COURSE (State Bar of Tex. 2007) at 10.

⁶² A T-19.1 endorsement is only available for the owner’s title policy. A similar T-19 endorsement is available for the construction lender, but it only covers existing wind infrastructure, so it will not help the construction lender mitigate risk from oil and gas operations.

⁶³ Stahl, *supra* note 9, at 4.

⁶⁴ *Id.*

⁶⁵ Douglas W. Becker, *Title Insurance – New Endorsements and Dealing with Exceptions*, REAL ESTATE BOOT CAMP (State Bar of Tex. 2007) at 8.

⁶⁶ Janet S. Minke, *Newest Title Policy Endorsements Explained*, 28TH ANNUAL ADVANCED REAL ESTATE LAW COURSE (State Bar of Tex. 2006) at 3.

⁶⁷ See Becker, *supra* note 65.

addition, the policy is only as strong as the financial strength of the company providing the insurance.⁶⁸ Thus, the T-19.1 endorsement has the ability to lower, but not eliminate the risk of oil and gas operations for an operating wind farm, and, because of this, wind projects in Texas generally purchase this insurance as part of their title policy. The title companies are willing to take the risk because they rely on the accommodation doctrine to protect the wind infrastructure once it has been constructed. And so, in more ways than one, wind farms must rely upon the accommodation doctrine to protect against interference from oil and gas operations.

VII. CONCLUSION

Overall, the risks to a wind project located on land where the mineral estate has been severed or where there is oil and gas activity are fairly minimal if reasonable alternatives are likely to be available to the oil and gas lessee. In particular, once the wind project is operating, the accommodation doctrine is likely to protect it, unless the oil and gas operations are limited to only one commercially reasonable way of drilling or one location that interferes with the wind project. The likelihood of this happening has become much lower now that technology has provided more commercially reasonable methods of drilling. The risks to a proposed wind farm are greater than one in operation because the accommodation doctrine likely will not apply and a T-19.1 endorsement is not yet available. However, if oil and gas operations do interfere before the project is built, it will be much easier to change the layout of the wind farm and the resulting costs will be much lower than having to change the layout once the wind project is built and operating.

Potential and existing oil and gas operations do pose a risk to wind farms that could be extremely costly if oil and gas interference were to occur, but the probability of this risk is extremely low. Therefore, potential investors in wind farms will likely be able to avoid charging a risk premium when investing in wind projects in Texas because of the protection the accommodation doctrine provides, and developers, utilities, and owners should feel fairly confident that the wind project will be able to avoid interference from oil and gas operations. The risks in other states with both wind and oil and gas development could be higher if the law in those states does not have a similar accommodation doctrine, or also possibly lower if mineral owners do not have as broad a range of rights as they do in Texas.

⁶⁸ *Id.*