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**Jousting at Wind Mills:
When Wind Power Development Collides
With Oil, Gas, and Mineral Development**

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CHAPTER 9
JOUSTING AT WINDMILLS: WHEN WIND
POWER DEVELOPMENT COLLIDES WITH OIL,
GAS, AND MINERAL DEVELOPMENT

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§ 9.01 Introduction**

Success for the renewable energy economy rides on wind power. Although wind currently accounts for only 1% of the total electricity generation in the United States,¹ the Obama administration hopes to leverage it to 25% by 2030.² In 2007, the United States' installed wind power capacity totaled 16,515 megawatts (MW).³ Approximately 15% of this total came from California, the birthplace of the modern wind energy industry.⁴ Four other key states for wind generation are Iowa,

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¹Wind farms in the United States generated approximately 32 billion kWh in 2007 compared to total power sector generation of 4,160 billion kilowatt-hours. Energy Information Administration (EIA), *Electric Power Monthly*, U.S. DOE, March 2008, Table ES1.B. The American Wind Energy Association (AWEA) forecasts that the U.S. wind industry will generate 48 billion kWh of electricity in 2008. Press Release, AWEA, "Installed U.S. Wind Power Capacity Surged 45% in 2007: American Wind Energy Association Market Report" (January 17, 2008), available at <http://www.awea.org>.

²President Barack Obama, "Remarks by the President on Clean Energy," Trinity Structural Towers Manufacturing Plant, Newton, Ohio (Apr. 22, 2009).

³*Electric Power Industry 2007: Year in Review: Report Released: January 21, 2009, available at* <http://www.eia.doe.gov>. New Wind capacity accounted for 87.1% of the 5,956 MW of total renewable capacity (other than conventional hydroelectric capacity) placed in service in 2007. *Id.* at 7.

⁴California led in wind power capacity until 2006 when Texas surpassed it. See U.S. Dep't of Energy, *Texas Firms its Lead Over California in Wind Power Capacity* (April 18, 2007), http://www1.eere.energy.gov/femp/news/news_detail.html?news_id=10718.

which now has surpassed California for the number two slot;⁵ Minnesota; Washington; and Colorado.⁶ But currently Texas reigns as king, with more than a quarter of the U.S. total generating capacity.⁷

As fate would dictate, wind companies have constructed their new projects in vast rural areas within or adjacent to the Texas oilfields, making conflict between the two industries inevitable. Not only does Texas hold the top rank for wind generating capacity,⁸ it also is number one for oil production in the continental United States.⁹ In fact, potential for clashes have erupted across the country as wind resources seem to have an uncanny knack for overlapping existing mineral-rich areas.¹⁰

The first two sections of this chapter provide background. Section 9.01 explores the expansion of wind power in the United States using West Texas as a case study for the current boom. Section 9.02 addresses the impact of wind development on the oil, gas, and mineral industries, illustrating some existing conflicts between mineral lessees and wind

⁵Iowa's installed capacity was only 1,115 MW in 2007. Jeffrey Logan and Stan Mark Kaplan, "Wind Power in the United States: Technology, Economic, and Policy Issues," Cong. Res. Service 16 (Figure 6) (June 20, 2008). However, its installed capacity in 2008 was up to 2,790 MW to take on the second-place spot, outpacing California's installed capacity of 2,517 MW. GWEC. NREL Chart—United States 2008 Year End Wind Power Capacity (January 21, 2009), <http://www.gwec.net/index.php?id=121>.

⁶The 2007 figures show Minnesota produced 1,258 MW; Washington produced 1,163 MW, and Colorado produced 1,067 MW. Jeffrey Logan and Stan Mark Kaplan, "Wind Power in the United States: Technology, Economic, and Policy Issues," Cong. Res. Service 16 (Figure 6) (June 20, 2008).

⁷Texas had 4,296 installed MW of capacity in 2007 (Jeffrey Logan and Stan Mark Kaplan, "Wind Power in the United States: Technology, Economic, and Policy Issues," Cong. Res. Service 16 (Figure 6) (June 20, 2008)), but by the first quarter of 2009 had 7,907 MW. "US Adds 2,800 MW of Wind Energy in 1Q 2009," Environmental Leader, April 30, 2009, *available at* <http://www.environmentalleader.com/2009/04/30/us-adds-2800-mw-of-wind-energy-in-1q-2009>.

⁸Although Texas currently has the greatest installed capacity, North Dakota outranks it in wind-generating potential while Kansas, Montana, and South Dakota also have great wind energy potential. American Wind Energy Association, "Wind Energy Potential," *available at* http://www.awea.org/faq/wwt_potential.html (last visited June 26, 2009).

⁹Texas out-produced Alaska in 2008 with 1,087 barrels per day in comparison to Alaska's 722 barrels per day. *See* <http://tonto.eia.doe.gov>. As of July 2008, Texas led the nation with approximately 50% of all the active land rigs drilling for oil and gas in the United States. Wichita Falls Times Record News, "Texas Leads Nation in Oil Production," Lee Anderson, August 4, 2008 (912 active land rigs drilling for oil and gas).

¹⁰*See, e.g.,* Montana, North Dakota, Pennsylvania, and Wyoming where mineral interest and wind potential overlap. NREL, United States – Wind Resource Map (December 9, 2008), http://www.windpoweringamerica.gov/wind_maps.asp.

lessees, as well as potential areas of dispute in the concurrent development of those resources.

The focus of this chapter is on the treatment of wind as a surface use and the traditional approaches and agreements based on that assumption. Section 9.03 describes traditional common law models courts have used to resolve surface and mineral estate conflicts, including the dominant-servient estate and the accommodation doctrine. Alternatively, some wind and traditional extraction lessees have chosen to anticipate and avoid some problems raised by these common law approaches through express contracts, as discussed in section 9.04.

Although it is beyond the scope of this chapter to address the matter in depth, the last two sections briefly raise a question: what if the traditional assumptions do not apply? If a court determines that severed wind deserves treatment as a “mineral,” then the dominant-servient model might be supplanted by a multiple-mineral model that encourages greater respect for the wind estate.¹¹ Uncertainty will continue to reign in the absence of any court decisions on the issue. A collective effort toward mutual respect would best support the goal of encouraging the development of all resources necessary to pull the United States into an era of energy independence.

§ 9.02 The Wind Boom

The use of wind as a power source has ancient origins. As early as 3100 B.C.E., the Egyptians harnessed the wind to sail boats along the Nile River,¹² and many believe the Chinese first erected land-based windmills to pump water around 200 B.C.E.¹³ By the time Don Quixote jousted at these “giants,”¹⁴ windmills, which historians believe were brought to

¹¹See K.K. DuVivier, “Animal, Vegetable, Mineral—Wind? The Severed Wind Power Rights Conundrum,” 49 Washburn L.J. (forthcoming fall 2009).

¹²Robert W. Righter, *Wind Energy in America: A History* 6 (Univ. of Okla. Press 1996).

¹³See *Alternative Energy Sources: Wind Power*, available at <http://www.seed.slb.com>. Some dispute that the Chinese first invented the windmill more than 2000 years ago, saying the earliest documentation of a Chinese windmill was in 1219 C.E., only about 800 years ago. Darrell M. Dodge, “Illustrated History of Wind Power Development,” available at <http://www.telosnet.com/wind>.

¹⁴Don Quixote was “tilting at windmills,” which now has become a metaphor for attacking imaginary enemies or persistent engagement in a futile activity. “Take care, sir,” cried Sancho [Panza]. “Those over there are not giants but windmills. Those things that seem to be their arms are sails which, when they are whirled around by the wind, turn the millstone.” Miguel de Cervantes Saavedra, “Don Quixote,” 1604, translated by Edith Grossman, 2003, at p. 59.

Europe from the Middle East by merchants and crusaders, had become widely accepted as “the ‘electrical motor’ of pre-industrial Europe.”¹⁵

Wind lost favor when the Industrial Revolution mandated constant sources of power.¹⁶ Coal and other fossil fuels replaced wind to propel steam engines in factories.¹⁷ Yet wind power never completely disappeared. Wind turbines remained prevalent at farms and ranches in rural portions of the United States until the 1950s,¹⁸ and in the 1970s, faced with oil embargoes, the United States renewed its support for wind power.¹⁹ Despite this new interest, companies in California and the Northwest that experimented with developing commercial wind power suffered several setbacks over the years, and it was not until the turn of the twenty-first century that the American wind industry came of age.

Texas led the way. There were no commercial-scale wind turbines in Texas prior to 1995, but by the first quarter of 2009, the exponential growth of the wind industry evoked memories of the oil booms during the early part of the twentieth century. Soon after 2000, small towns in West Texas and the Texas Panhandle became hives of activity as landmen descended in droves, presenting unprepared landowners with leases written in fine print and the promise of riches rivaling those of the speculators who first brought “big oil” to this part of the country in the last century.²⁰

In the years between 2003 and 2009, the West Texas town of Sweetwater evolved from being “The Home of the World’s Largest Rattlesnake Roundup” to being “The Wind Energy Capital of the World,” with three

¹⁵Dodge, *supra* note 14, at <http://www.telosnet.com/wind>. See also U.S. Dep’t of Energy, History of Wind Energy, *available at* http://www1.eere.energy.gov/windandhydro/wind_history.html (last visited June 26, 2009).

¹⁶The Industrial Revolution and Its Impact on Our Environment, *available at* http://www.ecology.com/features/industrial_revolution (May 19, 2008).

¹⁷Dodge, *supra* note 14, at <http://www.telosnet.com/wind>.

¹⁸In the 1950s, rural areas connected to the grid through the Rural Electrification Act of 1936, codified at 7 U.S.C. §§ 901-950bb-1 (elec. 2009). See also Dodge, *supra* note 14, at <http://www.telosnet.com/wind> (“Between 1850 and 1970, over six million mostly small (1 horsepower or less) mechanical output wind machines were installed in the U.S. alone. The primary use was water pumping and the main applications were stock watering and farm home water needs.”); Robert W. Righter, *Wind Energy In America: A History* 28, 105 (Univ. of Okla. Press 2003).

¹⁹Dep’t of Energy, “Wind & Hydropower Technologies Program,” *available at* http://www1.eere.energy.gov/windandhydro/wind_history.html (last visited June 26, 2009).

²⁰Roderick E. Wetsel & H. Alan Carmichael, “Current Issues in Wind Energy Law 2008 - 2009” (The University of Texas School of Law Wind Energy Institute 2009, Austin, Texas, January 2009).

of the world's largest wind farms.²¹ The Sweetwater area was attractive because it provided three ideal conditions for development of a wind farm: (1) adequate wind capacity of approximately 38% to 42%;²² (2) proximity to existing high-voltage transmission lines;²³ and (3) plenty of wide-open space less than 200 miles from the metropolitan load centers where the electricity can be sold.²⁴

In order to reap the benefits of this new industry, landowners in many Texas counties formed wind associations and selected "steering committees" to hire attorneys to attract wind developers and to negotiate wind leases.²⁵ Many county governments offered attractive *ad valorem* tax

²¹Of these, the largest wind farm is the Horse Hollow Wind Project constructed by Next Era Energy Resources, a subsidiary of Florida Power & Light Group, Inc., which contains 735.5 MW and covers 47,000 acres in western Taylor County and eastern Nolan County with 421 total turbines that are capable of generating enough electricity to power more than 220,600 homes. Horse Hollow Wind Energy Center, *available at* <http://www.nexteraenergyresources.com/content/where/portfolio/pdf/horsehollow.pdf> (last visited June 29, 2009). The second largest project, developed by DKRW Wind, LLC, covers over 60,000 acres in southwest Nolan County and consists of 585 MW. Sweetwater Wind, *available at* <http://www.dkrwwind.com/fw/main/Sweetwater-293.html> (last visited June 29, 2009). The third, and soon to be largest project, is being built by E.ON Climate & Renewables NA, Inc. (formerly Airtricity) near Roscoe, Texas in northwest Nolan County. It covers over 100,000 acres between the towns of Champion and Hermleigh along State Highway 84. This project is still under construction and will have an estimated 627 wind turbines and a total capacity of 781.5 MW, or enough electricity to power over 250,000 homes. E.On Delivers 355 MW of Wind in Texas, *available at* <http://www.renewableenergyworld.com/rea/news/article/2008/09/e-on-delivers-335-mw-of-wind-in-texas-53650>. Wetsel & Carmichael, *supra* note 20.

²²Since wind speed is not constant, a wind farm's annual energy production is never as much as the sum of the generator nameplate ratings multiplied by the total hours in a year. The ratio of actual productivity in a year to this theoretical maximum is called the capacity factor. Typical capacity factors are 20-40%, with values at the upper end of the range in particularly favorable sites. Renewable Energy Resource Laboratory, University of Massachusetts at Amherst, "Wind Power: Capacity Factor, Intermittency, and What Happens When the Wind Doesn't Blow?," *available at* http://www.ceere.org/rerl/about_wind (last visited June 29, 2009).

²³*E.g.*, a 345 kV line crosses the southern part of Nolan and Taylor Counties in West Texas. Wetsel & Carmichael, *supra* note 20, at 1. See Julie Anderson, "Let the Wind Blow: Consortium Promotes Wind Industry Possibilities," *available at* <http://www.county-progress.com/article.php?issue=14&category=2&article=36>.

²⁴The major load centers for West Texas are Austin, Dallas, Fort Worth, and San Antonio. See Texas Competitive Renewable Energy Zone [CREZ] and Long Term Needs, A Comprehensive Transmission Proposal by Electric Transmission Texas, LLC (ETT), Feb. 27, 2007, Exhibit PH-1, *available at* http://www.ettexas.com/news/docs/Feb_07_Summary_Exhibit_PH-1.pdf (last visited June 29, 2009) (hereinafter Summary Exhibit).

²⁵*Id.* See also Felicity Barringer, "A Land Rush in Wyoming Spurred by Wind Power," N.Y. Times (11/28/08).

abatements as incentives for wind companies to build in their county.²⁶ Promoters began putting together packages of leases in order to “flip” deals to interested developers.²⁷ In 2003, the mayor of Sweetwater formed the West Texas Wind Energy Consortium in order to educate landowners and organize political support for wind development in Texas.²⁸ In 2006, the first wind energy institute was held at a local college in Sweetwater, featuring bus tours of the surrounding wind farms.²⁹ Nearby hotels offered special rooms with a “turbine view.”³⁰

In 2007, the Texas Public Utilities Commission (PUC) reviewed 25 areas nominated for transmission development and designated a handful from West Texas and the Texas Panhandle to be Competitive Renewable Energy Zones (CREZ).³¹ This designation, and the hearings and publicity that preceded it, set off a further land rush by developers. Throughout the last half of 2007 and all of 2008, landmen descended like Biblical locusts upon many rural towns in the Texas Panhandle.³²

Although Texas experienced the fastest growth, similar wind booms have spread to other states. With close to 1,000 new units statewide in 2008 alone, wind turbines seemed to be popping up almost as fast as corn

²⁶Wetsel & Carmichael, *supra* note 20, at 12.

²⁷*Id.* at 1.

²⁸See “Wind Powers Cash Crop,” State Energy Conservation Office, *available at* http://www.seco.cpa.state.tx.us/re_wind-cashcrop.htm.

²⁹2006 Wind Energy Institute, June 1-2, 2006, Texas State Technical College, Sweetwater, Texas, presented by the University of Texas School of Law and The Oil, Gas and Energy Resources Law Section of the State Bar of Texas.

³⁰*Id.*

³¹At first the PUC designated eight CREZ areas, but later combined and reduced the number of zones to five. All of the designated zones are in West Texas, West Central Texas, and the Texas Panhandle. SB 20 Docket No. 33672—Central, West Central, Panhandle A & B, McCame, <http://www.puc.state.tx.us/rules/subrules/electric/25.216/34560adt.pdf>. See also Wetsel & Carmichael, *supra* note 20, at 19-20.

³²Even before the PUC designations, Texas billionaire, T. Boone Pickens, announced plans for a 4,000 MW project (five times larger than the Sweetwater project) in four Panhandle counties. By the end of 2007, Pickens’ company, Mesa Wind Power, had leased thousands of acres for this new project and placed the largest turbine order in history for delivery of 667 turbines with a price tag of \$2 billion. In the summer of 2008, Pickens also launched a \$58 million advertising campaign in the national media to gain public and political support for wind energy in the United States. “Move Over Oil, There’s Money in Texas Wind” (Feb. 23, 2008), *available at* <http://www.nytimes.com/2008/02/23/business/23wind.html?pagewanted=print> and interview with T. Boone Pickens of Mesa Power, L.L.P. in Sweetwater, Texas (November 12, 2007); see also Wetsel & Carmichael, *supra* note 20, at 3.

stalks in some Iowa counties.³³ Many states with Renewable Portfolio Standards—such as California, Colorado, Iowa, Kansas, New Mexico, Oklahoma, and Wyoming—have seen significant increases in wind development.³⁴ Nevada was one of the states to most recently board the wind train: on April 14, 2009, Senate Majority Leader Harry Reid “flipped the switch” to that state’s first wind turbine.³⁵

Wind power has been “the fastest growing source of new power generation”³⁶ over the last few years. Wind energy generating capacity in the United States increased by 27% in 2006, 45% in 2007, and another 50% in 2008. As of January 2009, the United States replaced Germany as the number one country for wind power with more than 25 gigawatts (GW).³⁷

Although the wind boom was slowed somewhat by the national recession at the end of 2008, no bust is in sight. Statements of support for wind power from President Barack Obama³⁸ and Secretary of the Interior

³³See AWEA, U.S. Wind Energy Projects – Iowa, *available at* <http://www.awea.org/projects/Projects.aspx?s=Iowa> (as of 3/31/2009) [The Adair project listed fourth on the table appears to have a typo—listing 2,300 units for only 174.8 MW of power capacity].

³⁴AWEA Press Release, “AWEA Quarterly Market Report: Texas Overtakes California as Top Wind Energy State (July 25, 2009), *available at* http://www.awea.org/newsroom/releases/AWEA_Quarterly_Market_Report_072506.html; <http://www.dsireusa.org> (Renewable Portfolio Standards).

³⁵Jeff Pope, “Reid Flips Switch on State’s First Wind Turbine,” *Las Vegas Sun* (April 14, 2009), *available at* <http://www.lasvegassun.com> (last visited 7/5/09).

³⁶Jeffrey Logan and Stan Mark Kaplan, “Wind Power in the United States: Technology, Economic, and Policy Issues,” *Cong. Res. Service* 3 (June 20, 2008). Wind power provides over 6% of the electricity generated in at least four states: Colorado, Iowa, Minnesota, and South Dakota.

³⁷Todd White & Rachel Graham, “U.S. Takes Global Lead in Windpower, Passes Germany” (February 2, 2009), *available at* <http://www.bloomberg.com>. *See also* Ernest E. Smith, “Recent Developments in Texas Wind Law,” *Houston Bar Association Oil, Gas, & Mineral Law Section* (Jan. 27, 2009).

³⁸Sheryl Gay Stolberg, “Obama Urges Passage of Energy Legislation,” *N.Y. Times*, April 22, 2009 at A17, *available at* <http://www.nytimes.com/2009/04/23/us/politics/23obama.html>. On February 17, 2009, President Obama signed into law the American Recovery and Reinvestment Act of 2009 which extended through December 31, 2012 the federal production tax credit for the production of electricity from wind facilities, and provided that wind facilities are eligible for a 30% investment tax credit. It also provided for a federal grant program through the Department of Treasury that issues grants for up to 30% of the cost of a new wind energy facility. Pub. L. No. 111-5, 123 Stat. 115 (2009).

Ken Salazar³⁹ suggest the wind industry will continue to be robust for years to come.⁴⁰

§ 9.03 Impact of Wind Energy on the Mineral Industry

The spread of the wind boom across mineral-producing states has set off an alarm among mineral owners because of the large swaths of land needed for wind development.⁴¹ The first concern is the enormous size of today's turbines, which have power ratings ranging from 250 watts to 5 MW.⁴² For example, the General Electric 1.5 MW turbine rises to a height of 80 meters (262 feet) at its hub and has a rotor radius of approximately 38 meters (125 feet).⁴³ Although the surface footprint for each turbine is relatively small in relation to its height,⁴⁴ wind development requires more extensive surface use than traditional oil and gas development because of additional factors: (1) turbine spacing, (2) buffer zones, (3) other surface uses such as for roads, substations, operations and maintenance facilities, and laydown yards, and (4) overhead and underground transmission, collection, and distribution lines.

First, and most obviously, land is needed for the placement of the turbines themselves. A variety of factors determines turbine spacing, including

³⁹See, e.g., Statement of Secretary Salazar, Senate Committee on Energy and Natural Resources, Energy Development on Public Lands and Outer Continental Shelf (March 17, 2009), available at <http://energy.senate.gov>; see also Hearing Schedule, Witness List.

⁴⁰Steve Goldstein, "Vestas Upped to Overweight at Morgan Stanley" (June 15, 2009), available at <http://www.marketwatch.com/story/vestas-upped-to-overweight-at-morgan-stanley>; *But c.f.*, FactCheck.org, "Hot Air on Wind Energy" (April 10, 2009), available at http://www.factcheck.org/politics/hot_air_on_wind_energy.html ("[C]onverting wind to enough electricity to replace all U.S. coal-fired plants would require building 3,540 offshore wind farms as big as the world's largest. . . . So far the U.S. has built exactly zero offshore wind farms.").

⁴¹Becky H. Diffen, "Energy from Above and Below, Who Wins When a Wind Farm and Oil and Gas Operations Conflict?," 3 *Tex. J. of Oil, Gas, & Energy L.* 240, 241 (2008); Mark Z. Jacobson, "Review of Solutions to Global Warming, Air Pollution, and Energy Security," 2 *Energy and Environmental Science* 148 (2009).

⁴²Wind Energy Basics, available at http://www.awea.org/faq/wwt_basics.html.

⁴³GE 1.5 MW Series Wind Turbines, available at http://www.gepower.com/prod_serv/products/wind_turbines/en/15mw/index.htm.

⁴⁴The pad is covered by caliche or rock and also houses a large transformer at its base. A 1.5 MW GE turbine normally uses a 50' x 50' x 8' pad while a Seimens 2.3 MW turbine uses a 20' to 25' round socket which is generally 25' to 30' feet deep. In contrast, an oil and gas drilling location is normally 200' x 200' through completion and 80' x 80' afterwards. Personal Interview by co-author Roderick E. Wetsel, with R.L. Adkins, President, R.L. Adkins Corp., Oil and Gas Operators, Sweetwater, Texas (May 11, 2009) and Personal Interview by co-author Roderick E. Wetsel, with Terry Phillips, Vice President, Skyward Energy, at Midland, Texas (May 11, 2009).

terrain, wind speed, wind direction, turbine size, and access to an electric grid.⁴⁵ As a general rule, the optimum location of turbines is in an east-to-west direction with north-to-south rows spaced approximately 1,000 feet between each turbine and 3,000 feet between each row. Although counties and local authorities increasingly are attempting to regulate the siting of wind turbines, no state had enacted spacing regulations as of the time this chapter was written.⁴⁶

Second, when putting together a wind farm, developers must include land not only for the placement of the turbines themselves, but also for buffer zones to prevent obstructions upwind. Many wind sites include leases or non-obstruction easements for land at least ten rotor-lengths (approximately one-half to one mile) away from the turbines to avoid “waking” or wind disturbance to the nearby generators.⁴⁷ Depending upon the topography and number of turbines installed, a typical wind farm can cover anywhere from 3,000 to 150,000 acres, which may or may not include the additional acreage needed for buffer zones.⁴⁸

Third, wind companies must utilize significant portions of the surface for (1) roads, (2) O&M facilities⁴⁹ and substations, and (3) laydown yards. Wind farm roads are huge in comparison with oilfield roads and

⁴⁵Factors Affecting Turbine Location, *available at* <http://www.wind-energy-the-facts.org/en/part-i-technology/chapter-4-wind-farm-design/factors-affecting-turbine-location>.

⁴⁶*See* Wind Power Siting Regulations and Wildlife Guidelines in the United States (US Fish and Wildlife Service, April 2007) (stating there are no state siting requirements, but acknowledging that states rely on local agencies to permit wind energy systems). These local regulations, which include setbacks from roads, residences, and property boundaries have a significant impact on turbine layouts. *See, e.g.*, regulations in Kit Carson County, Colorado, http://www.kitcarsoncounty.org/kcc_files/planning/KCCWindRegulations.pdf and in Natrona County, Wyoming, <http://www.natrona.net/development/documents/WECS%20Emergency%20Regulations.pdf>. *See also* Tex. S.B. 1226, 81st Leg., R.S. (2009) and “Gillespie County Drops Bid for Power to Regulate Wind Turbines There,” Zeke MacCormack, May 1, 2009, *available at* http://www.mysanantonio.com/news/local_news/Gillespie_County_drops_bid_for_power_to_regulate_wind_turbines_there.html (last visited July 6, 2009) (Senator Troy Fraser filed legislation to authorize the Gillespie County Commissioners Court to regulate the construction of wind energy electric generating facilities and specifically allow county officials to prohibit or restrict the location of a facility. However, fearing an intense battle, the legislative effort was abandoned).

⁴⁷Personal interview by co-author K.K. DuVivier with Mark Safty, Partner, Holland & Hart, Denver, CO (Apr. 29, 2009). *See also* Diffen, *supra* note 41, at 242.

⁴⁸Wind Farm Area Calculator, National Renewable Energy Laboratory, *available at* http://www.nrel.gov/analysis/power_databook/calc_wind.php (a “footprint” for a wind farm is approximately 0.76 acres per turbine).

⁴⁹“O&M” generally means “operations and maintenance” facilities.

may be as much as 60 feet wide prior to turbine construction in order to accommodate the large cranes needed to erect the turbines.⁵⁰ Service roads connect each of the turbines; access roads provide ingress and egress to and from public roads and adjoining properties. Each wind farm has one or more O&M facilities and substations. These facilities include power stations and company offices and are located on tracts of three to five acres each.⁵¹ Laydown yards—areas where repairs are made and parts are stored—are strategically placed in the vicinity of public roads for easy access of equipment and construction materials. They cover between five and 20 acres or more per site.⁵²

Fourth, and most significantly, the turbines are linked by a spiderweb of underground and overhead transmission, collection, and distribution lines.⁵³ Although these lines take up little surface space, the fact that they must be crossed or avoided can interfere with concurrent use of the same land for oil, gas, and mineral exploration and development. Large overhead lines containing many strands of wires up and down the poles are of particular concern, as it is often difficult for drilling rigs to be moved underneath them.⁵⁴

This plethora of surface and subsurface activities required to develop wind power is made possible by a broad and extensive “purpose clause” in wind leases.⁵⁵ The broad powers granted to wind companies in some

⁵⁰ After construction, the size of the service roads may be reduced to approximately 20 feet in width.

⁵¹ Personal Interview by co-author Roderick E. Wetsel with Terry Phillips, Vice President, Skyward Energy, at Midland, TX (May 11, 2009).

⁵² *Id.*

⁵³ The underground lines are bound in a bundle less than a meter in diameter and buried at a depth of about three to four feet to avoid interfering with farming or other immediate surface activities. The layout of these transmission lines varies depending upon the location of the turbines. Wind developers will usually lay the underground lines parallel to the lines of the turbines to avoid unnecessary wiring or criss-crossing. Personal interview by co-author K.K. DuVivier with Heather Otten, Vice President, Development, Invenergy, Denver, CO (April 29, 2009). However, rows of turbines often need to be connected at diagonals, and the power generated from the wind farm also must be connected to overhead transmission lines that link to the electric power generation grid, creating additional potential obstructions. Personal interview with Mark Safty, *supra* note 47.

⁵⁴ Personal Interview by co-author Roderick E. Wetsel with Terry Phillips, Vice President, Skyward Energy, at Midland, TX (May 11, 2009). *See also* Thomas J. Forestier & Katherine A. Willyard, “Conflicts Between Oil and Gas and Wind Energy Development,” at pages 12-13, 35th Ernest E. Smith Oil, Gas & Mineral Law Institute, Houston, TX (March 27, 2009).

⁵⁵ A sample “purpose clause” is available in § 9.08, Appendix I, and in Wetsel & Carmichael, *supra* note 20, at 54.

wind leases have raised tensions with oil, gas, and mineral developers. In recent years, disputes have arisen between mineral companies and wind companies about the conduct of seismic operations, location of drilling rigs and tank batteries, use of roads, and ingress and egress to properties. Although there has not yet been any reported litigation regarding these issues, the storm is on the horizon.

§ 9.04 Common Law Approach I—Dominant-Servient Estate and Accommodation

The Industrial Revolution made the search for and supply of fossil fuels and metals to feed factories a priority. When landowners severed estates to allow for development of these resources, the mineral estate earned nearly uncontested dominance over the surface.⁵⁶ Consequently, courts have upheld the principle that ownership of minerals includes an implied right to interfere with the surface owner's activities and to use as much of the surface "as necessary" in accessing and extracting the minerals.⁵⁷ Thus, a dominant owner is liable to the servient owner only for damages inflicted negligently.⁵⁸

The hardship the "unidimensional" dominant-servient estate doctrine imposed on surface owners has been mitigated in some situations by the "multidimensional" accommodation doctrine.⁵⁹ Under this doctrine, courts require the mineral owner to accommodate a surface owner's use if the mineral owner has a reasonable alternative for accessing and extracting its minerals.⁶⁰ Yet, the accommodation doctrine does not restrict mineral development altogether.⁶¹

⁵⁶See 6 Am. L. of Mining § 200.02[1][b] (2d ed. 2008). *But cf.*, Tom C. Toner, *The Arrogance of Dominance/The Reason for Split Estate Litigation*, Presentation to the 2005 Wyoming State Bar Annual Meeting ("[T]his dominance principle has never been as absolute as oil and gas operators like to portray it. . ."). See also discussion of the accommodation doctrine *infra*.

⁵⁷6 Am. L. of Mining § 200.02[1][b] (2d ed. 2008) (citing a Texas case saying courts give deference to the mineral lessee's view of reasonableness).

⁵⁸See, e.g., *Moser v. U.S. Steel Corp.*, 676 S.W.2d 99, 103 (Tex. 1984); *General Crude Oil Co. v. Aiken*, 344 S.W.2d 668, 669 (Tex. 1961).

⁵⁹See Bruce M. Kramer, "The Legal Framework for Analyzing Multiple Surface Use Issues," *Severed Minerals, Split Estates, Rights of Access, and Surface Use in Mineral Extraction Operations 2-1, 2-20 to 2-30* (Rocky Mt. Min. L. Fdn. 2005). See also Donald N. Zimmerman, "The Common Law of Access and Surface Use in Oil, Gas, and Mining," *Severed Minerals, Split Estates, Rights of Access, and Surface Use in Mineral Extraction Operations 1-1* (Rocky Mt. Min. L. Fdn. 2005).

⁶⁰See *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 622 (Tex. 1971).

⁶¹*Id.*

This section will examine both of these common-law models: (1) the dominant-servient estate, and (2) the accommodation doctrine.

[1] The Dominant-Servient Estate Doctrine

Over 60 years ago, the Texas Supreme Court issued a landmark decision holding that “a grant or reservation of minerals would be wholly worthless if the [mineral owner] could not enter upon the land . . . to explore for and extract the minerals granted or reserved.”⁶² The majority of court opinions in other states have followed Texas and have come down in favor of the mineral estate owner.⁶³ These decisions have often led to harsh results for surface owners.⁶⁴

Over the years, mineral companies have come into conflict with surface owners and their lessees such as farmers, ranchers, and hunters. This conflict is primarily due to the fact that many states have long allowed the severance of the surface estate from the mineral estate so that surface owners frequently do not own the minerals underneath their own lands. This severance has led to problems because uses by the surface owners and their tenants are often inconsistent with mineral exploration and production activities. One court articulated this inherent conflict between the surface estate and mineral estate this way:

From the viewpoint of the surface owner when mineral operations are conducted all across his land, interfering constantly with his ranching or farming, the mineral use becomes unreasonable. But the mineral operator who employs the usual and customary methods of the industry views the matter differently; it would be unreasonable for him to give way to grazing animals by not developing the underlying minerals, i.e., by not drilling wells and building roads and power lines and flow lines and tank batteries. The viewpoint of these parties on reasonableness is quite different. Sadly for the surface owner, Texas law, which governs in the present case, implies that a mineral lease gives a large measure of deference to the lessee’s view of reasonableness.⁶⁵

⁶²Harris v. Currie, 176 S.W.2d 302, 305 (Tex. 1943). See also Philip Wm. Lear, “Split Estates and Severed Minerals: Rights of Access and Surface Use After the Divorce (and Other Leasehold Access-Related Problems),” Severed Minerals, Split Estates, Rights of Access, and Surface Use in Mineral Extraction Operations 12-1, 12-7 (Rocky Mt. Min. L. Fdn. 2005) (citing Davison v. Reynolds, 103 S.E. 248, 250 (Ga. 1920) and *Harris*, 176 S.W.2d at 305); Rick D. Davis, Jr., “Private Lands—Surface Access and Use,” Severed Minerals, Split Estates, Rights of Access, and Surface Use in Mineral Extraction Operations 9A-1, 9A-9 (Rocky Mt. Min. L. Fdn. 2005).

⁶³Davis, *supra* note 62, at 9A-2.

⁶⁴David E. Jackson, “Surface Use: The Dominant Estate, Reasonable Use and Due Regard” 2 (State Bar of Texas 24th Annual Advanced Oil, Gas and Energy Resources Law Course 2006).

⁶⁵Vest v. Exxon Corp., 752 F.2d 959, 960-61 (5th Cir. 1985).

In the 1919 case of *Grimes v. Goodman Drilling Co.*,⁶⁶ the Grimeses bought a home in the oil boom town of Burkburnett, Texas, which was on a lot subject to an existing oil and gas lease. After the Grimeses moved into the residence, Goodman Drilling erected a derrick on the lot and began drilling. It dug a slush pit along the side of the house and slush and grease spattered the doors and windows of the home. The noise from the rig was deafening, and the family could not sleep. The Grimeses sued and lost. The appellate court found that the Grimeses bought the lot burdened by an oil lease and had no grounds to complain about the drilling of the well.⁶⁷

Later, in 1954, the Texas Supreme Court held that an oil company “was under no duty to fence the well to prevent [the landowner’s] cattle from entering upon the land near the well and drinking oil on the ground.”⁶⁸ The court held:

The petitioner [oil company] was lawfully in possession of the premises and being the owner of the dominant estate had the legal right to use so much of the leased premises as were reasonably necessary in its operation to the exclusion of respondent [the landowner], the owner of the servient estate.^{68.1}

Then, in the 1957 case of *Warren Petroleum Corporation v. Monzingo*, the Texas Supreme Court held that an oil company had no obligation to restore the surface of the land to its prior condition after drilling operations if there was no express provision in the oil and gas lease requiring it to do so.⁶⁹

The rule of law reflected in these decisions became known as the “dominant-servient estate doctrine.” More than anything, it was a statement of policy that the public has a common interest in developing mineral resources for the benefit of society.⁷⁰ In one form or another, the doctrine has been followed in Arkansas,⁷¹ California,⁷² Colorado,⁷³

⁶⁶*Grimes v. Goodman Drilling Co.*, 216 S.W. 202 (Tex. Civ. App. Fort Worth 1919, writ diss’d).

⁶⁷*Id.* at 204.

⁶⁸*Warren Pet. Corp. v. Martin*, 271 S.W.2d 410, 412 (Tex. 1954).

^{68.1}*Id.*

⁶⁹*Warren Pet. Corp. v. Monzingo*, 304 S.W.2d 362, 363 (Tex. 1957).

⁷⁰*See id.*

⁷¹*E.g.*, *Cranston v. Miller*, 208 Ark. 156, 185 S.W.2d 920 (1945).

⁷²*E.g.*, *California Callahan v. Martin*, 43 P.2d 788 (Cal. 1935).

⁷³*E.g.*, *Gerrity Oil & Gas Corp. v. Magness*, 946 P.2d 913, 926 (Colo. 1997).

Illinois,⁷⁴ Kansas,⁷⁵ Kentucky,⁷⁶ Louisiana,⁷⁷ Mississippi,⁷⁸ Montana,⁷⁹ New Mexico,⁸⁰ North Dakota,⁸¹ Oklahoma,⁸² Oregon,⁸³ Texas, and Wyoming.⁸⁴

The dominant-servient doctrine, however, was not boundless. Over the years, courts have created at least two common law limitations to the mineral owner's right of dominance over the surface estate: "(1) The mineral owner may only use so much of the surface as is reasonably necessary for the exploration and production of the minerals; [and] (2) The mineral owner must use the surface and conduct his exploration and production operations in a non-negligent manner."⁸⁵

Texas courts often expressed the mineral owner's authority as the right to use as much of the surface, and in such a manner, as is reasonably necessary to comply with the terms of the lease and to effectuate its purpose.⁸⁶ The "reasonably necessary" limitation is "simply a limit on the manner in which the mineral operation is done, and it does not limit the right of the lessee to develop and extract minerals in accordance with the

⁷⁴ *E.g.*, *In re Payment of Taxes*, 537 N.E.2d 358 (Ill. App. Ct. 1989).

⁷⁵ *E.g.*, *Powell v. Prosser*, 753 P.2d 310 (Kan. Ct. App. 1988).

⁷⁶ *E.g.*, *Lindsey v. Wilson*, 332 S.W.2d 641 (Ky. 1960).

⁷⁷ *E.g.*, *Rohner v. Austral Oil Exploration Co.*, 104 So.2d 253 (La. Ct. App. 1958).

⁷⁸ *E.g.*, *Sun Oil Co. v. Nunnery*, 170 So.2d 24 (Miss. 1964).

⁷⁹ *E.g.*, *Stokes v. Tutvet*, 328 P.2d 1096 (Mont. 1958).

⁸⁰ *E.g.*, *Amoco Oil Co. v. Carler Farms Co.*, 703 P.2d 894 (N.M. 1985) (reversed on other grounds).

⁸¹ *E.g.*, *Feland v. Placid Oil Co.*, 171 N.W.2d 829 (N.D. 1969).

⁸² *E.g.*, *Wellsville Oil Co. v. Carver*, 206 Okla. 181, 242 P.2d 151 (1952).

⁸³ *E.g.*, *Yaquina Bay Timber & Logging Co. v. Shiny Rock Mining Corp.*, 556 P.2d 672 (Or. 1976).

⁸⁴ *E.g.*, *Holbrook v. Cont'l Oil Co.*, 278 P.2d 798 (Wyo. 1955).

⁸⁵ *Davis, Jr.*, *supra* note 62, at 9A-3. Another restriction is that the mineral owner must comply with statutory limitations. There are few statutory limitations regarding a mineral owner's use of the surface, but in recent years, a growing number of states have adopted surface damage statutes. *Id.* at 9A-26 to 9A-29. Andrew M. Miller, "A Journey Through Mineral Estate Dominance, the Accommodation Doctrine, and Beyond: Why Texas is Ready to Take the Next Step With a Surface Damage Act," 40 *Hous. L. Rev.* 46 (2003). *Davis, Jr.*, *supra* note 62, at 9A-3, also addressed "due regard" for the surface owner's rights, which will be discussed in § 9.04[2] of this chapter, *infra*.

⁸⁶ *E.g.*, *Monzingo*, 304 S.W.2d at 363.

lease.⁸⁷ If, however, mineral interest owners or lessees use more of the land than is reasonably necessary for their operations, or if they engage in specific acts of negligence, they may be held accountable for damages.⁸⁸

The courts have held that “reasonably necessary surface use” includes the right of an oil company to enter upon the surface for the exploration and production of oil and gas;⁸⁹ the right to construct roads to drill sites;⁹⁰ the right to take a reasonable amount of water for operations;⁹¹ the right to house employees during operations;⁹² the right to mine caliche for use in constructing roads and pads for drill sites and tank batteries;⁹³ the right to construct production and storage facilities to produce, save, care for, and dispose of oil and gas production;⁹⁴ the right to select drilling sites;⁹⁵ the right to select the timing of drilling operations;⁹⁶ the right to dispose of salt water produced on the lease;⁹⁷ the right to conduct geophysical exploration and seismic operations;⁹⁸ and the right to enter premises with growing crops.⁹⁹

The courts have found unreasonable surface use in certain limited situations where an excessive amount of the surface was used in

⁸⁷*Exxon*, 752 F.2d at 961 (citing *Humble Oil & Ref. Co. v. Williams*, 420 S.W.2d 133 (Tex. 1967)).

⁸⁸*Ball v. Dillard*, 602 S.W.2d 521, 523 (Tex. 1980) (citing *Robinson v. Robbins Petroleum Corp., Inc.*, 501 S.W.2d 865 (Tex. 1973) and *Sun Oil Corp. v. Whitaker*, 483 S.W.2d 808 (Tex. 1972)).

⁸⁹*Id.*

⁹⁰*Humble Oil & Refining Co. v. Williams*, 420 S.W.2d 133, 135 (Tex. 1967).

⁹¹*Stradley v. Magnolia Petroleum Co.*, 155 S.W.2d 649 (Tex. Civ. App.—Amarillo 1941, error ref’d).

⁹²*Joyner v. R.H. Dearing & Sons*, 134 S.W.2d 757, 760 (Tex. Civ. App.—El Paso 1939, error dism’d. judg. cor.).

⁹³*B.L. McFarland Drilling Contractor v. Connell*, 344 S.W.2d 493, 497 (Tex. Civ. App.—El Paso 1961) (judgment set aside on other grounds, 347 S.W.2d 565 (1961)).

⁹⁴*R.H. Dearing & Sons.*, 134 S.W.2d at 759.

⁹⁵*Stephenson v. Glass*, 276 S.W. 1110, 1112 (Tex. Civ. App.—San Antonio 1925).

⁹⁶*Robinson Drilling Co. v. Moses*, 256 S.W.2d 650, 651-652 (Tex. Civ. App.—Eastland 1953, no writ).

⁹⁷*Brown v. Lundell*, 344 S.W.2d 863, 866-67 (Tex. 1961).

⁹⁸*Wilson v. Texas Co.*, 237 S.W.2d 649, 650 (Tex. Civ. App.—Ft. Worth 1951, writ ref’d n.r.e.).

⁹⁹*Moses*, 256 S.W.2d at 652.

operations;¹⁰⁰ where water was used for off-lease secondary recovery operations;¹⁰¹ and where there was excessive use of water from the premises.¹⁰² Courts of other states have imposed similar limitations.¹⁰³

The second important limitation upon the dominant-servient estate doctrine is that the mineral lessees have the duty to avoid committing negligent acts while conducting their operations on the surface. If they fail to do so, the surface owners may recover damages caused by the negligent activity. The courts have found instances of negligence on the part of a mineral lessee where a lessee negligently allowed salt water to escape from the disposal pit and pollute an underground stream;¹⁰⁴ where a lessee negligently allowed salt water to escape and pollute a spring, killing cattle and reducing the value of the land;¹⁰⁵ where a registered quarter horse died because of injuries received from a cattle guard that was negligently constructed and maintained by the mineral lessee;¹⁰⁶ and where damages were caused by a lessee negligently allowing oil to escape from a leaking pipeline.¹⁰⁷ Mineral lessees in other states have been found liable for similar instances of negligence.¹⁰⁸

[2] The Accommodation Doctrine

Originally the accommodation doctrine evolved as a limitation upon the disproportionate burdens that dominant mineral owners placed on servient surface estates. This doctrine has been defined as “a judicial, non-statutory concept that requires the mineral owner to act with prudence

¹⁰⁰Oryx Energy Co. v. Shelton, 942 S.W.2d 637, 641 (Tex. App.—Tyler, 1996, no writ).

¹⁰¹Robinson v. Robbins Petroleum Corp., 501 S.W.2d 865, 867 (Tex. 1973).

¹⁰²Gulf Oil Corp. v. Whitaker, 257 F.2d 157 (5th. Cir. 1958).

¹⁰³E.g., United Geophysical Corp. v. Culver, 394 P.2d 393 (Alaska 1964) (cutting down 40% more trees than was reasonably necessary to conduct geophysical operations); Lanahan v. Myers, 389 P.2d 92 (Okla. 1963) (using the land longer than necessary).

¹⁰⁴Brown v. Lundell, 344 S.W. 2d 863 (Tex. 1961).

¹⁰⁵Gen. Crude Oil Co. v. Aiken, 344 S.W. 2d 668, 671 (Tex. 1961).

¹⁰⁶Texaco, Inc. v. Spires, 435 S.W.2d 550, 554 (Tex. Civ. App.—Eastland 1968, writ ref'd n.r.e.).

¹⁰⁷Scurlock Oil Co. v. Harrell, 443 S.W.2d 334, 337 (Tex. Civ. App.—Austin 1969, writ ref'd n.r.e.).

¹⁰⁸Picou v. Fohs Oil Co., 64 So. 2d 434 (La. 1953) (damages awarded for 50 to 60 small trees cut down while conducting geophysical work); Union Producing Co. v. Pittman, 146 So. 2d 553 (Miss. 1962) (damages awarded for damage to timber and land caused by drilling an oil well).

and to have due regard for the interest of the surface owner in exercising his right to use the surface to produce the minerals.”¹⁰⁹

It is important to note that the accommodation doctrine focuses only on the method of the mineral owner’s operations.¹¹⁰ Thus, “due regard” for the surface owner’s rights was not intended to limit the mineral owner’s decision about whether or when to extract any minerals.¹¹¹ Also, the accommodation doctrine applies only to existing surface uses and does not require a mineral owner to consider a surface owner’s future uses.¹¹²

The Texas Supreme Court first applied the accommodation doctrine, also known as the “alternative means” doctrine, in a 1971 case, *Getty Oil Co. v. Jones*.¹¹³ In that case, Jones was a surface owner who purchased land subject to a prior mineral lease owned by Getty. Jones installed a self-propelled, circular irrigation system which could only clear surface obstructions up to seven feet tall. Getty then drilled two oil wells and installed pumping units on the land which were as high as 34 feet. The pump jacks prevented Jones from using his irrigation system and decreased the value of his property.

Jones sued to enjoin Getty from utilizing the pumping units. He argued that other operators in the area placed their pumping units in cellars to prevent obstruction to the landowners’ irrigation systems. Relying on prior “due regard” cases, the Texas Supreme Court noted that:

[W]here 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.¹¹⁴

¹⁰⁹Diffen, *supra* note 41, at 247.

¹¹⁰*Exxon*, 752 F.2d at 963.

¹¹¹Despite “due regard” language (such as “the equal dignity of the estates and [resolution of] conflicts by balancing their conflicting interests”), some courts have emphasized that “due regard” for the surface owner’s rights does not limit the mineral owner’s decision about whether or not to extract any part of the minerals. 6 Am. L. of Mining § 200.02[1][b][iii] (2d ed. 2008) (citing *Moser v. U.S. Steel Corp.*, 676 S.W.2d 99 (Tex. 1984)).

¹¹²See Phillip Wm. Lear & J. Matthew Snow, “Conflicts with Development of Other Minerals,” 2 Law of Fed. Oil & Gas Leases § 23.04[1][c] (2008). See also Michael C. Sanders & David D. Livingston, “Surface Rights v. Mineral Rights Conflicts Are Bound to Increase,” Houston B.J. (Sept. 7, 2007), available at <http://houston.bizjournals.com/houston/stories/2007/09/10/focus4.html>.

¹¹³470 S.W.2d 618, 622 (Tex. 1971).

¹¹⁴*Id.* at 622.

The court found that if Jones could meet the dual burden of proving that his irrigation system was the only reasonable means of developing the surface and that Getty had a reasonable alternative in using subsurface pumping installations that were already an established practice in the area and would not interfere with Jones' irrigation system, setup use of an "interfering method or manner of use" could be held to be unreasonable.^{114.1} The *Getty* court made it clear, however, that if there is only one means of surface use by which the oil and gas can be produced, the accommodation doctrine will not apply.¹¹⁵

In 2006, the Texas Supreme Court expanded the accommodation doctrine in its decision in *Texas Genco LP v. Valence Operating Co.*¹¹⁶ In that case, the surface owner of a landfill sought to enjoin an oil and gas lessee from drilling a gas well on a cell in the landfill even though waste was not currently being disposed of in that cell. The court found that although the cell was not yet being utilized for waste disposal, it was part of a system that was in use, and drilling in that cell would cause the landowner to have to redesign other cells and lose the use of still others. The court also reasoned that directional drilling to the location in question was an economically viable alternative as well as an established industry practice. In this case, the court reasoned that the projected income from the oil and gas operation was sufficient to warrant directional drilling.¹¹⁷ Based on the reasoning in *Valence*, it appears that courts will apply the accommodation doctrine where directional drilling is a potential alternative so long as the additional costs of the alternative are reasonable based on the projected income from the oil and gas operation.¹¹⁸

^{114.1}*Id.* at 628.

¹¹⁵*Id.* (on motion for reh'ing). The Texas Supreme Court revisited the subject and clarified that the holding in *Getty* "is limited to situations in which there are reasonable alternative methods that may be employed by the lessee. . . ." *Sun Oil Co. v. Whitaker*, 483 S.W.2d, 808, 812 (Tex. 1972). It ruled in favor of an 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 on the premises. *Id.* The Texas courts have also held that mere inconvenience to the surface owner is not sufficient to invoke rule of reasonable accommodation. *Ottis v. Haas*, 569 S.W.2d 508, 514 (Tex. Civ. App.—Corpus Christi 1978, writ denied)

¹¹⁶187 S.W.3d 118 (Tex. App.—Waco 2006, pet. denied).

¹¹⁷*Id.* at 125. In a companion case involving the same two parties and virtually identical facts, but a different well location, the same court in 2008 once again found that directional drilling was a reasonable accommodation to the surface owner. *Valence Operating Co. v. Texas Genco, LP*, 255 S.W.3d 210 (Tex. App.—Waco 2008).

¹¹⁸The issue as to whether or not a court may require wells to be directionally drilled from a location under a separate lease is unresolved. *Diffen*, *supra* note 41, at 250.

To date, courts in other mineral producing states including Arkansas,¹¹⁹ Colorado,¹²⁰ New Mexico,¹²¹ North Dakota,¹²² Utah,¹²³ and Wyoming,¹²⁴ have adopted some version of the accommodation doctrine. Factors these courts have considered include (1) potential injury to the land, (2) utility, (3) priority of date of operations, (4) terms of the severance deeds, (5) benefits to be derived, and (6) public interest.¹²⁵

If courts use common law models to resolve wind-mineral conflicts, the wind lessee may be relegated to the same status as other surface lessees.¹²⁶ Application of the dominant-servient estate doctrine would then put mineral lessees in the driver's seat with liability for damages only if they are negligent.

If the courts apply the accommodation doctrine instead, then wind developers may be able to force a mineral lessee to adjust its development plans to prevent interference with the wind development operations. Arguably, once a wind farm is constructed, it should constitute a reasonable use of the surface of the land. The ultimate question might be whether or not the oil and gas lessee has a reasonable alternative method of working around the wind farm to develop its interest.¹²⁷

It is a closer question as to whether or not courts will apply the accommodation doctrine to protect a proposed wind farm as opposed to an existing wind farm. Many wind leases today are given for an option term of five to 10 years, which can result in a long delay between execution of the lease and actual construction. During this period, the oil and gas lessee should be able to use the surface freely, even if wind development

¹¹⁹Diamond Shamrock Corp. v. Phillips, 511 S.W.2d 160 (Ark. 1974).

¹²⁰Gerrity Oil & Gas Corp. v. Magness, 946 P.2d 913 (Colo. 1997). See also Colo. Rev. Stat. § 34-60-127.

¹²¹Amoco Prod. Co. v. Carter Farms Co., 703 P.2d 894, 896 (N.M. 1985) (citing *Jones*, 470 S.W.2d 618 (Tex. 1971) (explaining that mineral developer must exercise due regard for the rights of surface owners)) (abrogated on other grounds).

¹²²Hunt Oil v. Kerbaugh, 283 N.W.2d 131 (N.D. 1979).

¹²³Flying Diamond Corp. v. Rust, 551 P.2d 509 (Utah 1976)

¹²⁴Mingo Oil Producers v. Kamp Cattle Corp., 776 P.2d 736 (Wyo. 1989).

¹²⁵6 Am. L. of Mining § 200.02[1][b][iii] (2d ed. 2009); Phillip E. Norvell, "Developing Lands Characterized by Separate Ownership of Oil and Gas and Surface Movable Coal and Uranium—The Other Side of *Acker v. Guinn* and Its Progeny," 33 Oil & Gas Inst. 193, 218 (S.W. Legal Fdn. 1982).

¹²⁶Smith, *supra* note 37.

¹²⁷The *Valence* case expands the reasonable alternative standard to include directional drilling so long as the location is on the same lease. Diffen, *supra* note 41, at 250.

is planned. Furthermore, the *Valence* court found it to be highly relevant, in applying the accommodation doctrine to protect a future use by the surface owner that the future use was a part of the design of an overall project that was already in operation.¹²⁸ A wind company might be able to rely upon this decision to protect the surface of a wind farm that is being built in phases where the first phase has already been constructed, especially if the first phase includes infrastructure that will also be used in subsequent phases. In this situation, the wind company could argue that, as in *Valence*, surface layouts for the subsequent phases are part of the entire project and should be entitled to the same protection as the existing phase.¹²⁹

From the perspective of a wind developer, the common law accommodation approach would be preferable to a strict dominant/mineral-servient/surface estate regime. Yet most wind developers are hesitant to leave resolution of any surface use conflicts to the discretion of a judge who may or may not adopt the accommodation doctrine and, if so, may or may not weigh the factors in the wind developer's favor.¹³⁰

§ 9.05 Altering Common Law Approaches through Express Agreements

Wind developers, particularly those from Europe, have been surprised to learn that under U.S. law their wind interest might be servient to dominant mineral estates.¹³¹ They have been rightfully concerned about investing hundreds of millions of dollars in a wind project that could be subject to interference by the owners of the mineral estate. Before

¹²⁸ *Valence*, 187 S.W.3d at 124.

¹²⁹ *Id.* at 122-23.

¹³⁰ The accommodation doctrine “creates uncertainty” because a judge may “‘second-guess[]’ the reasonableness of the operator’s business judgment.” Jan. G. Laitos, “Literature Review of Severed Minerals, Split Estates, Rights of Access, and Surface Use in Mineral Extraction Operations,” Severed Minerals, Split Estates, Rights of Access, and Surface Use in Mineral Extraction Operations, 1B-1, 1B-2 (Rocky Mt. Min. L. Fdn. 2005). If wind rights are simply part of the surface estate, that may create some preference for the mineral estate. Furthermore, even if the wind estate is considered of commercial value comparable to the mineral estate, its development is perpetual in contrast to the finite time it takes to deplete a mineral or oil and gas deposit, so one alternative might be deferring the wind development until exhaustion of the competing mineral right. See, e.g., deferring oil and gas development until depletion of the overlying potash deposit. 6 Am. L. of Mining 2d § 200.04[2][b].

¹³¹ The “financing of U.S. renewable energy projects is predominantly led by European banks like Dexia, Paribas, Nordbank, Credit Suisse etc.” because “European utilities like EDF (France), Iberdrola (Spain) and many others active in the U.S. simply are a decade ahead of U.S. companies in their experience with renewable technologies.” E-mail to co-author K.K. DuVivier from Mark Safty, Partner, at Holland & Hart, LLC (April 22, 2009).

providing financing, some investors require a title search and a mineral endorsement. These are available, however, only if the title company finds that there is little or no likelihood of mineral development.

When mineral leases currently exist on the property, or if there is any future potential for mineral development, most wind investors require a more proactive approach. Instead of relying on a judge's resolution of potential conflicts, they seek instead to alter the common law regimes through express agreements.

This section will address documents used when the wind lease is executed before a mineral lease, and the more common situation in which the mineral interest is executed before the wind lease. Finally, it will address the role of the grantors in both situations and the additional difficulties encountered when the grantor is not positioned to work with the parties to encourage compromise.

[1] If Wind Rights Are First In Time

If the wind rights grantor owns the surface and mineral estates, and has not previously sold or leased any part of the estate, then wind developers have been able to negotiate clauses in their leases that greatly restrict oil, gas, and mining activities on the surface.¹³² Some clauses in early wind leases even attempted to reverse the dominant estate doctrine and make the mineral estate servient to the wind estate.¹³³

Additionally, wind companies have mandated that all future oil and gas leases entered into by the surface owner contain provisions referencing the wind lease and requiring the oil and gas lessee to enter into a surface use or accommodation agreement with the wind lessee.¹³⁴ A surface accommodation agreement makes provision for any concurrent surface operations (including required distances from facilities), notice prior to the commencement of drilling or construction, use and maintenance of roads, indemnity for surface damages and personal injuries, and insurance. An

¹³²An example of one such clause is in § 9.09, Appendix II of this chapter. Wetsel & Carmichael, L.L.P. archives.

¹³³An early wind lease clause read as follows: "Any new oil and gas leases or renewals and/or extensions of existing oil and gas leases, options to lease, seismic permits, or any other agreements made by Landowner with a third party in search of oil, gas or other minerals shall be made subject to the terms and conditions of this Agreement and . . . be made inferior and subordinate to the rights created under this Agreement and this Agreement shall be dominant and superior to the mineral estate." Wetsel & Carmichael, L.L.P. archives.

¹³⁴A typical form of accommodation agreement is attached to this chapter as § 9.10, Appendix III.

accommodation agreement is now customary for an oil company which desires to drill on a wind farm.

As a further impediment, wind companies in their leases have sought to impose restrictions on surface use for oil and gas development. These clauses are very broadly written so as to prohibit the location of drilling rigs or other oil and gas facilities within a specified number of feet of any existing wind turbine, substation, or transmission line. Such clauses also provide that in any future oil and gas or mining lease, the surface owner must provide that the mineral company will not conduct any activities within the areas specified and will not otherwise unreasonably interfere with the wind company's rights under its lease. The term "minerals" is defined to include not only oil and gas but also other minerals such as coal, uranium, sand, gravel, and caliche.

Many wind leases also contain a broad "no-interference clause," which provides that the surface owner and its lessees shall not currently or prospectively disturb or interfere with the construction, installation, maintenance, or operation of the wind power facilities or the undertaking of any other activities permitted under the lease. As shown above, some wind companies have even gone so far as to provide in their leases that the surface estate of the property shall be dominant to the mineral estate. In this regard, there may be a serious issue as to whether the surface owner (who may or may not also own mineral rights) can affect the rights of non-executive mineral owners under the land with these provisions. If the surface owner also owns all of the mineral estate, it seems clear that he or she can reverse the doctrine. On the other hand, if there are non-executive mineral owners or non-participating royalty owners, it is unlikely that such a provision will be binding on those owners.

[2] If Mineral Rights Are First In Time

In conflict areas, it is more likely that the mineral estate has been severed and perhaps leased before a wind developer enters the scene. In these situations, wind developers first provide the mineral interest owner with notification.¹³⁵

Next, as a first line of defense when the mineral estate beneath a wind lease is severed from the surface, wind companies have sought to obtain a surface waiver or non-interference agreement from the mineral interest

¹³⁵Phone Interview by co-author K.K. DuVivier with Elizabeth A. Mitchell, Partner, Holland & Hart, LLC, Denver, CO (April 30, 2009).

owners who did not also own the surface estate.¹³⁶ Such non-disturbance agreements may be part of the county permitting requirements.¹³⁷

These efforts have often proved futile. With the assumption that they have the common law advantage of dominant estate ownership and have no obligation to accommodate the servient surface use of the wind lessee, some mineral owners have hindered development of wind projects by refusing to negotiate reasonable non-disturbance agreements or have requested exorbitant sums as compensation for them.¹³⁸

[3] The Role of the Grantor

Concurrent wind and mineral development is more likely when the grantor can act as referee between these separate interests. The grantor can try to negotiate clauses in the lease agreements that put pressure on lessees to work together. Also, even without express clauses, the intervention of the grantor may be enough to encourage open lines of communication.

However, the grantor can also be caught in the middle of battles between wind and mineral developers. For example, oil companies have fought back against wind development leases by requesting promises of their own from the grantors. Oil leases now frequently require that payment of the bonus consideration is contingent upon and subject to execution of an accommodation agreement by any wind lessee on the property. If the wind lessee does not agree to the accommodation agreement, the oil company may cancel the oil lease and has no obligation to pay the bonus consideration. Demands from wind lessees or mineral lessees that the grantor make their rights dominant can put the grantor in an untenable position, inviting litigation.

Furthermore, tensions between wind and mineral developers can be heightened if the grantor is not positioned to intervene. This occurs in at least two situations. First, the federal government's standard form lease reserves the right to lease different resources to different parties

¹³⁶See § 9.11, Appendix IV, Release of Surface Rights by Oil and Gas Lessee and Mineral Owner.

¹³⁷Draft Yuma County Land Use Code § 4.04(13)(k) (pending revision Sept. 14, 2009).

¹³⁸When these owners could be located, they tended to value their mineral ownership highly such that the negotiation of a surface waiver was typically "all about money." Personal Interview by co-author Roderick E. Wetsel with Terry Phillips, Vice President, Skyward Energy, at Midland, TX (May 11, 2009). Agreements purporting to override previously granted mineral rights will most likely be found null. See, e.g., Shannon L. Ferrell, "Wind Energy Agreements in Oklahoma: Dealing with Energy's New Frontier," 80 Okla. B.J. 1015, 1023 (5/9/2009).

because the government believes that wind and mineral development are compatible. This leaves resolution of conflicts up to the various lessees.¹³⁹

Second, if a private grantor severed the mineral estate before executing the wind lease, a wind developer might be required to work with a mineral lessee who has interests that do not align with the wind grantor. The potential conflicts increase significantly with severance of the wind from the surface estate. When the wind rights are owned by one party and the mineral rights by another, there is little incentive for any of the parties to work together. The situation is further exacerbated if the surface owner, who is most impacted by both wind and mineral surface operations, receives no royalty or other benefit from the development of either resource.¹⁴⁰

§ 9.06 Common Law Approach II—Multiple Mineral Development

There is a certain irony about disputes between wind and mineral interests, especially when the conflict is between oil and gas companies and wind companies. First, some of the large wind power developers are divisions of oil and gas companies, so one division may be fighting with another in the same company.¹⁴¹ Second, wind is considered intermittent power; it can produce electricity only when the wind is blowing. Consequently, our nation can develop wind as an alternative renewable

¹³⁹One provision of the Multiple Mineral Development Act expressly recognizes the possibility of the concurrent development of the same lands under the mining laws and under the Mineral Lands Leasing Act and provides a procedure for resolution of development conflicts. 30 U.S.C. § 526 requires that when the same lands are being utilized for both mining operations and Leasing Act operations, they shall be conducted in so far as is reasonably practicable, in a manner compatible with multiple use. There is apparently no liability for damage to the minerals of the other operator if it is not reasonably practicable to avoid such damage. 6 Am. L. of Mining 2d § 200.05[2]. Note also that the latest BLM Memorandum on wind development suggests establishing “a partnership or cooperative agreement that establishes compatible use of the site among the applicants.” In the absence of such an agreement, the BLM will process the first complete application. IM No. 2009-43, “Wind Energy Development Policy,” available at <http://www.blm.gov>.

¹⁴⁰See DuVivier, *supra* note 11.

¹⁴¹*E.g.*, BP and Royal Dutch Shell are two large wind producers. See Windpower, available at <http://www.bp.com>; and Innovation, Alternate Energy, available at <http://www.shell.com>.

power source only if there is a back up, usually from fossil fuel plants run with oil or, more often, with natural gas.¹⁴²

Although some have stated that a wind lease is “incontestably not a transfer of mineral rights,”¹⁴³ the first of only two courts in the United States that have addressed the severance of wind analogized wind rights to oil and gas interests.¹⁴⁴ That decision addressed wind severance in a backhanded way through condemnation, but other courts may use the rationale that the wind estate should be treated in the same way as a mineral estate.¹⁴⁵

Thus, the initial question in approaching conflicts between mineral lessees and wind lessees is the status of the wind estate.¹⁴⁶ Under the “ad coelum” doctrine, the owner of the soil, or surface, also has ownership rights in everything from the center of the earth to the skies.¹⁴⁷ Application of the ad coelum doctrine may justify characterizing wind flowing across

¹⁴²Back-up sources are often called “peaker plants”—but sometimes oil or natural gas back-up is not required if solar power back-up or a large-enough wind collection area are available. *See, e.g.*, Lena Hansen, Jonah Levine, Bryan Palmintier, “Spatial and Temporal Interactions of Solar and Wind Resources in the Next Generation Utility,” p. 1, *available at* [http://www.rmi.org/images/PDFs/Palmintier_SolarandWindinNGU\(SOLAR2008\).pdf](http://www.rmi.org/images/PDFs/Palmintier_SolarandWindinNGU(SOLAR2008).pdf) (last accessed May 2, 2009).

¹⁴³Ernest Smith, “Wind Energy: Siting Controversies and Rights in Wind,” 1 *Env'tl. & Energy L. & Pol'y J.* 314 (2007).

¹⁴⁴We agree with the Water District’s assertion that “[t]he right to generate electricity from windmills harnessing the wind, and the right to sell the power so generated, is no different, either in law or common sense, from the right to pump and sell subsurface oil, or subsurface natural gas by means of wells and pumps.”

Contra Costa Water Dist. v. Vaquero Farms, Inc., 68 Cal. Rptr. 2d 272, 278 (Cal. Ct. App. 1997).

¹⁴⁵*See also* *Romero v. Bernell*, 603 F. Supp. 2d 1333, 1335 (D.N.M. 2009) (The second court to address the status of wind rights noted that wind should not be treated like minerals in place, but instead like “water or wild animals which traverse the surface and which do not belong to the fee owner until reduced to possession.”).

¹⁴⁶*DuVivier*, *supra* note 11.

¹⁴⁷“Cujus est solum ejus est usque ad coelum et ad inferos.” (“To Whomsoever the soil belongs, he owns also to the sky and to the depths.”). *Shell Oil Co. v. Manley Oil Corp.*, 37 F. Supp. 289 (D.C. Ill. 1941). *See, e.g.*, Edmund F. Trabue, “The Law of Aviation,” 58 *Am. L. Rev.* 65, 72 (1924). *See also* *Getty Oil Co. v. Jones*, 470 S.W.2d 618, 621 (Tex. 1971) (“It has long been recognized that ownership of real property includes not only the surface but also that which lies beneath and above the surface. The use of land extends to the use of the adjacent air.”).

a piece of land as a severable wind power estate.¹⁴⁸ If such a wind power estate is viewed as part of the surface estate, then traditional notions of the dominant-servient estate and accommodation doctrines may apply.¹⁴⁹

However, the development of wind is comparable to the development of other mineral commodities and, arguably, wind estates are closer to mineral rights.¹⁵⁰ If courts decide to treat wind as a “mineral,” then the common law rules that apply to conflicts between mineral and surface lessees may not control. Instead, courts may prefer to look to alternative common law models, such as those controlling multiple mineral development, including (1) avoidance; (2) first in time, first in right; and (3) equal dignity.

Avoidance is one strategy employed in multiple mineral development contexts. For example, after concluding that joint development of potash and oil and gas was “unworkable,” the United States and the State of Utah

¹⁴⁸ See DuVivier, *supra* note 11. See also Lisa Chavarria, “The Severance of Wind Rights in Texas,” University of Texas School of Law’s Wind Energy Institute at 2 (January 2009) [hereinafter Chavarria 2009]; Lisa Chavarria, “Undertaking the Severance of Wind Rights,” 32 Oil Gas & Energy Res. L. Sec. Rep. (No. 2, December 2007) [hereinafter Chavarria 2007]; Lisa Chavarria, “Wind Power: Prospective Issues,” 68 Tex. B. J. 832, 834-35 (Oct. 2005) [hereinafter Chavarria 2005] (Chavarria does not support or oppose the practice of severance but recognizes that it is common among Texas landowners); Ernest Smith, “Wind Energy: Siting Controversies and Rights in Wind,” 1 *Env’tl & Energy L. & Pol’y J.* 281, 301 (2007) (“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.” Although Smith does not cite the “ad coelum” doctrine, he does cite Hogwood to say wind ownership may be comparable to the capture theory used for wild animals, or the law of percolating water and notes that states may alternatively “look to oil and gas law for an analogy.”) *Id.*; Joseph O. Wilson, “The Answer, My Friends, Is in the Wind Rights Contract Act: Proposed Legislation Governing Wind Rights Contracts,” 89 Iowa L. Rev. 1775, 1784 (2004); Terry E. Hogwood, “Against the Wind,” 26 No. 2 Oil, Gas & Energy Resources L. Sec. Rep. 6, 7-8 (Dec. 2001). Other valuable articles addressing wind rights, without as much emphasis on the categorization of the right, include Helle Tegner Anker, Birgitte Egelund Olsen, & Anita Ronne, “Wind Energy and the Law: A Comparative Analysis,” 27 *J. Energy & Nat’l Resources L.* 145 (2009); Elizabeth Burlison, “Wind Power, National Security, and Sound Energy Policy,” 17 *Penn St. Envtl. L. Rev.* 137 (Winter 2009); Roderick E. Wetsel & H. Alan Carmichael, “Current Issues in Wind Energy Law 2009,” 20th Annual Advanced Real Estate Drafting Course, Houston, Texas (2009); Bent Ole Gram Mortenson, “International Experiences of Wind Energy,” 2 *Environmental & Energy Law & Policy J.* 179 (2008); K. Shawn Smallwood, “Wind Power Company Compliance with Mitigation Plans in the Altamont Pass Wind Resource Area,” 2 *Environmental & Energy Law & Policy J.* 229 (2008).

¹⁴⁹ See discussion *supra* § 9.04.

¹⁵⁰ DuVivier, *supra* note 11.

withdrew certain lands in the Cane Creek area from oil and gas leasing.¹⁵¹ Similarly, in New Mexico, oil and gas operations that conflict with potash development may be prohibited.¹⁵² Some investors are eyeing abandoned mine sites as potential locations for renewable energy development because they may receive incentives for making use of the site, and if a deposit is depleted, there should be no competition for use of the surface.

When avoidance is not an option, however, alternative methods for resolving conflicts must be addressed. Although there is no well-defined system for resolving conflicts, the traditional approach appears to be one of “first in time, first in right.”¹⁵³ For example, in the Powder River Basin of Wyoming, the government had issued several leases before it considered withdrawal from leasing to avoid conflict between coal and oil and gas development.¹⁵⁴ To address the problem there, some of the subsequent leases include special stipulations prohibiting coal operations that might unreasonably interfere with preexisting oil and gas leases.¹⁵⁵

While first in time, first in right may be the current approach of the U.S. government in multiple mineral development contexts, it is better as a default procedure.¹⁵⁶ An alternative that is “consistent with the balancing mechanisms of multiple use philosophies,” is an equal dignity of estates

¹⁵¹“In Utah, the United States acted to avoid potential development conflicts by withdrawing from oil and gas leasing certain lands in the Cane Creek area of the state containing potash deposits.” 6 Am. L. of Mining § 200.04[2][b]. However, in the mid-1990s, Utah again issued oil and gas leases in this area. See Lear, *supra* note 112, at § 23.07[1][C], n.17.

¹⁵²New Mexico Oil Conservation Commission, Rules and Regulations Governing the Exploration of Oil and Gas in Certain Areas Known to Contain Potash Reserves (1980) Rule 111A-F (The Commission’s authority to exclude all oil or gas drilling to accommodate potash has not been tested in the courts.) Cf. The Attorney General of Utah opined that a prior oil and gas lease cannot be subordinated to a subsequent potash lease “in the absence of a strong public interest to the contrary.” Opinion of Attorney General of Utah State Land Board dated July 24, 1961 (cited in 6 Am. L. of Mining § 200.04[2][b] (2d ed. 2008)).

¹⁵³6 Am. L. of Mining § 200.04[2][d][i] (2d ed. 2008).

¹⁵⁴*Id.* § 200.04[2][c][i].

¹⁵⁵*Id.* § 200.04[2][c][ii]. Note that “the first in time, first in right principle might be applied even though a subsequent lessee was the first party to initiate operations on the premises.” *Id.* § 200.04[2][d][i]. Cf., Carlin v. Cassriel, 50 L.D. 383 (Apr. 21, 1924) (treating surface patentee with rights subsequent to mineral lessee different from surface patentees senior to mineral lessees). *Id.* at note 62.

¹⁵⁶Note also that the latest BLM Memorandum on wind development suggests establishing “a partnership or cooperative agreement that establishes compatible use of the site among the applicants.” In the absence of such an agreement, the BLM will process the first complete application. IM No. 2009-43, “Wind Energy Development Policy,” *available at* <http://www.blm.gov>. See also Lear, *supra* note 112, at § 23.24[1].

approach.¹⁵⁷ If mineral estates have equal dignity, a court may value interference with a competing mineral right more highly than it might value interference with use of the surface.¹⁵⁸ A coal mining case from the eastern U.S. can provide an example.

Although the rationales for upholding a right of access to develop underlying strata vary, a leading coal case on the topic is *Chartiers Block Coal Co. v. Mellon*.¹⁵⁹ In this case, a coal lessee sought to restrain oil and gas operations by a subsequent lessee, alleging that the drilling was a hazard to its coal mining operations.¹⁶⁰ The Pennsylvania Supreme Court denied the injunction. The landowner's initial grant retained the underlying strata and a right of access to it; otherwise the reserved mineral estate *below* the coal would be inaccessible and valueless.¹⁶¹ The majority in *Chartiers* conditioned the oil and gas lessee's right of access on indemnification to the coal operator for damages.¹⁶²

The *Chartiers* decision included a concurring decision basing the right of access on a reciprocal servitude theory.¹⁶³ The reciprocal servitude theory did not rest on priority of possession or indemnification alone. Instead, the concurrence resolved the conflict through an approach similar to the accommodation doctrine: giving the trial court discretion to impose terms for the right of access, for the precautions each lessee must observe, and for compensation.¹⁶⁴ Ultimately, the concurrence urged the trial court to "exercise its equitable powers to adjust and balance the competing interests."¹⁶⁵

From a landowner's perspective, it might be more profitable to develop the traditional mineral estate instead of the wind estate.¹⁶⁶ However, a

¹⁵⁷ Lear, *supra* note 112, at 23.24[1].

¹⁵⁸ 6 Am. L. of Mining § 200.04[1][a] (2d ed. 2008).

¹⁵⁹ 25 A. 597 (Pa. 1893).

¹⁶⁰ *Id.*

¹⁶¹ *Id.* at 599.

¹⁶² *Id.*

¹⁶³ *Id.* at 600.

¹⁶⁴ *Id.*

¹⁶⁵ 6 Am. L. of Mining § 200.04[1][c] (2d. ed. 2008) (interpreting the *Chartiers* concurrence, 25 A. at 597).

¹⁶⁶ With a 1/8 royalty free of costs, it is possible to receive \$900,000 per year for an oil and gas well. In contrast, with a 3% to 7% royalty for wind, the return may only be \$100,000 (assuming 100MW wind farm x 8,750 hours per year x 30%-39% efficiency (because the wind is intermittent) and a price of \$50 per MW—not including tax credits).

multiple mineral development framework based on equal dignity of the estates might at least provide indemnification for the wind developer without having to prove negligence on the part of the mineral lessee. Regardless of the common law model used, it seems preferable for both parties to participate in good faith negotiations for a joint use agreement instead of litigating and leaving their fate within a judge's discretion.

§ 9.07 Future Developments of Wind and Minerals: Conflict or Compatibility?

In less than 10 years, the wind energy industry has come of age. The United States, with the State of Texas at the forefront, now leads the world in wind energy development. At the same time, domestic production of oil and gas is a national priority as the United States seeks to revitalize its oil and gas industry to reduce the nation's reliance upon foreign oil.

It is now the dream of many landowners in Texas and elsewhere to one day have both oil wells and wind turbines on their land. In making this dream a reality, landowners will play a pivotal role. Like referees in an energy "super bowl," landowners must keep oil and wind companies from trying to overreach each other in concurrent development of the land.

So far, wind developers and the extractive industries have mostly managed to work together for the common good. However, some current practices indicate that traditional industries must adapt to changing times, though change may be difficult. To ensure our nation's future, wind companies will need to accommodate future oil, gas, and mineral development, and traditional extractive industries will need to recognize today's realities by making room for wind and other types of renewable energy.¹⁶⁷

¹⁶⁷As an example, oil and gas lessees in Texas have sometimes demanded that wind turbine operations be halted so they will not interfere with seismic surveys. Halting wind operations while the turbines are generating electricity could cost a wind farm hundreds of thousands of dollars per day. However, if the agreement stipulates that seismic operations be conducted on days or in seasons when the wind is not blowing, then both parties may achieve their goals of compatible development.

§ 9.08 Appendix I: Sample “Purpose Clause” in a Wind Lease

Developing, constructing, reconstructing, erecting, installing, improving, replacing, relocating and removing from time to time, and using, maintaining, repairing, operating and monitoring, the following, for the benefit of one or more Projects (as defined below): (a) wind machines, wind energy conversion systems and wind power generating facilities (including associated towers, foundations, support structures, guy wires, braces and other structures and equipment), of any type or technology (collectively, “Generating Units”); (b) transmission facilities, including overhead and underground transmission, distribution and collector lines, wires and cables, conduit, footings, foundations, towers, poles, crossarms, guy lines and anchors, substations, interconnection and/or switching facilities, circuit breakers and transformers, and energy storage facilities; (c) overhead and underground control, communications and radio relay systems and telecommunications equipment, including fiber, wires, cables, conduit and poles; (d) meteorological towers and wind measurement equipment; (e) roads and erosion control facilities; (f) water pipelines and pumping facilities; (g) control, maintenance and administration buildings; (h) utility installations; (i) laydown areas and maintenance yards; (j) signs; (k) fences and other safety and protection facilities; and (l) other improvements, facilities, appliances, machinery and equipment in any way related to or associated with any of the foregoing (all of the foregoing, including the Generating Units, collectively, “Wind Power Facilities”). . . .

§ 9.09 Appendix II: Sample Clause Greatly Restricting Oil, Gas, and Mineral Activities

To the extent that landowner is the owner of the oil, gas and other minerals in and under the subject property, as of the effective date, or after the effective date acquires part or all of the mineral estate, then lessor agrees not to sell, assign, lease, or otherwise grant or convey title to all or any part of the mineral estate unless and until landowner obtains from the grantee or assignee thereof a waiver of surface rights and subordination and non-disturbance agreement . . . that (a) states that all of the right, title and interest of such grantee or assignee is subordinate to the terms and provisions of this lease and all of the rights granted to the wind company herein, and that (b) prohibits such grantee or assignee from interfering in any way with the activities of the wind company under this lease. Landowner agrees not to allow any oil and gas drilling rigs, tank batteries, pipelines, flow lines, power lines or other equipment to be located within 400 feet of any wind turbine generators, 100 feet of any overhead or underground transmission lines, or within 50 feet of any wind company roads, without the consent of the wind company. . . . If landowner seeks for or on behalf of himself to explore for, develop, produce, extract, utilize or otherwise conduct operations with respect to the exploration and development of other oil, gas and minerals or surface minerals such as caliche, limestone or gravel, on any portion of the lease premises, landowner agrees to conduct such operations in accordance with the terms of this lease and without interfering with the activities of the wind company. . . .

Wetsel & Carmichael, L.L.P. archives.

§ 9.10 Appendix III: Sample Accommodation Agreement

NOTICE OF CONFIDENTIALITY RIGHTS UNDER SECTION 11.008 OF THE TEXAS PROPERTY CODE: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OF THE FOLLOWING INFORMATION FROM THIS INSTRUMENT BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER’S LICENSE NUMBER.

ACCOMMODATION AGREEMENT

DATE: _____

PARTIES: _____

(“WIND LESSEE” or sometimes “Party”)

and _____

(“O&G LESSEE” or sometimes “Party”)

SUBJECT PREMISES: See Exhibit A attached hereto and incorporated herein:

1. Purpose. WIND LESSEE has acquired, or has an option to acquire, by surface lease, the right to install and operate facilities for the generation and transmission of electric power derived from wind energy on the Subject Premises. The parties acknowledge that WIND LESSEE intends to use the Subject Premises for the construction, installation, operation and maintenance of large wind turbines, overhead transmission, collection, and distribution electric and communication lines, substations, switching stations, roads, operations buildings, roads and related equipment and facilities (all of which are collectively referred to herein as “Wind Facilities”) for the conversion of wind energy to electricity and for

the collection and transmission of wind-generated electric power. O&G LESSEE is or will be the owner of a lease of all or an interest in the oil, gas and other gaseous substances that can be produced from a well or wells in and under the Subject Premises, or a portion thereof. The parties acknowledge that O&G LESSEE intends to use the Subject Premises, or portions thereof, to explore for, drill wells for, mine, produce and transport oil, gas and other gaseous substances that can be produced from a well or wells from the Subject Premises and to install and maintain wells, tanks, tank batteries, roads, pipelines, flow lines, power lines, compressors, and other permanent and semi-permanent equipment and facilities for the production, handling, storage, treatment, transportation and marketing of such production (all of which are collectively referred to herein as the "O&G Facilities"). WIND LESSEE and O&G LESSEE desire to mutually agree, in the respects set forth herein, for themselves and for their respective heirs, successors and assigns, on the manner in which they will exercise the rights associated with their respective estates so that each will accommodate, and interfere as little as reasonably practical with, the use of the Subject Premises by the other.

2. Oil and Gas Operations. O&G LESSEE agrees that all exploration for and development and production of oil, gas and other gaseous substances that can be produced from a well on the Subject Premises will be conducted in a manner that will reasonably accommodate WIND LESSEE's activities, and, insofar as is reasonably possible and without increasing the cost or risk (including economic risk) of such oil and gas development activities, will not interfere with the operation of the Wind Facilities. Without limiting the generality of the foregoing, and in addition to all other covenants and obligations imposed by law, O&G LESSEE agrees as follows:

(a) Unless otherwise agreed to by WIND LESSEE, no O&G Facilities for O&G LESSEE's operations will be located within three hundred (300) feet of the center point of any wind turbine tower, other than roads as otherwise provided for herein.

(b) O&G LESSEE will not place O&G Facilities on the Subject Premises without first consulting with WIND LESSEE in order to determine a location for such items that will not (or will as little as reasonably possible without increasing O&G LESSEE's cost or risk) materially disrupt the flow of wind currents over and across the land, such that the wind disruption or any other circumstance resulting from the placement of such equipment or facilities reduces the capacity of the Wind Facilities to generate electricity from the wind; provided that drilling rigs and workover rigs may be erected

temporarily without such consultation and remain in place so long as necessary for the drilling, reworking, or recompletion of the well for which they have been engaged. WIND LESSEE will notify O&G LESSEE within thirty (30) days after receipt of O&G LESSEE's notice, as hereinafter provided, if any equipment or facilities O&G LESSEE proposes to place on the Subject Premises will cause such a disruption, and will provide such information and documentation as may be necessary to demonstrate the disruptive effect of O&G LESSEE's proposed placement, whereupon O&G LESSEE will be obligated to take WIND LESSEE's notice into account and accommodate WIND LESSEE's reasonable requests concerning such O&G Facilities to the extent above provided. O&G LESSEE agrees not to construct or erect any building or structure on the Subject Premises higher than forty (40) feet, other than a temporary drilling or workover rig, without the prior written approval of WIND LESSEE.

(c) O&G LESSEE and its agents, employees and contractors will not enter upon the area within fifty (50) feet immediately surrounding WIND LESSEE's turbines and other Wind Facilities without the permission of WIND LESSEE and will not tamper with any Wind Facilities, other than roads or at crossings of underground or overhead electric transmission or collection Wind Facilities (as otherwise provided herein).

(d) Unless otherwise agreed to by WIND LESSEE, in conducting geophysical exploration or construction of O&G Facilities, O&G LESSEE will perform no blasting within two hundred (200) feet of any Wind Facility. O&G LESSEE will notify WIND LESSEE of any intended blasting operations more than twenty (20) days prior to commencement of same. If due to subsurface conditions, greater distances from Wind Facilities are required by WIND LESSEE to avoid damage to the Wind Facilities or subsurface support thereof, WIND LESSEE will notify O&G LESSEE within ten (10) days after such notice of additional setback requirements and the location thereof, and O&G LESSEE will comply with any reasonable requests by WIND LESSEE for such additional setback. O&G LESSEE will take all available precautions to shield the Wind Facilities against blasting debris. O&G LESSEE agrees to monitor any seismic surveying to ensure compliance with this Agreement.

(e) O&G LESSEE will give WIND LESSEE at least twenty (20) days notice (i) prior to commencement of the drilling of any well, which notice will advise WIND LESSEE of the proposed location, a description, with approximate dimensions, of the drilling

rig and other equipment that will be used, and the estimated time for the drilling and completion of the well, and (ii) prior to the construction or installation of any O&G Facilities, including the location at which each is proposed to be placed and their approximate dimensions. O&G LESSEE agrees to consult with WIND LESSEE and to provide such further information regarding proposed operations as WIND LESSEE may reasonably request including maps or plats depicting the location of such O&G Facilities, if prepared for O&G LESSEE. O&G LESSEE agrees to consult with WIND LESSEE concerning any matter in which WIND LESSEE perceives the possibility of conflict between the parties' respective uses of the Subject Premises.

3. Wind Operations. WIND LESSEE agrees to conduct its operation and development of the Subject Premises for the conversion of wind energy to electricity and for the collection and transmission of wind-generated electric power and operation of the Wind Facilities in a manner that will reasonably accommodate O&G LESSEE's said activities, and without increasing the cost or risk (including economic risk) of such wind development activities, will not interfere with the operation of the O&G Facilities. Without limiting the generality of the foregoing, and in addition to all other covenants and obligations imposed by law, WIND LESSEE agrees as follows:

(a) Unless otherwise agreed to by O&G LESSEE, WIND LESSEE will not locate any wind turbine structure, or any part thereof, within three hundred (300) feet of an existing well capable of producing oil, gas and other gaseous substances.

(b) WIND LESSEE agrees not to obstruct O&G LESSEE's ingress and egress to and from any existing wells and facilities used in the production of oil, gas and other gaseous substances and will not (without O&G LESSEE's consent) locate its wind turbines so closely to each other as to prevent the safe and orderly passage of vehicles and equipment between them.

(c) WIND LESSEE will not enter upon the area within fifty (50) feet immediately surrounding O&G LESSEE's wells, tank batteries, and other surface facilities without the permission of O&G LESSEE and will not tamper with any equipment or other property of O&G LESSEE, other than roads or at crossings of underground or overhead electric lines, pipelines, or flowlines (as otherwise provided herein).

(d) Unless otherwise agreed to by O&G LESSEE, in conducting construction of Wind Facilities, WIND LESSEE will perform no blasting within two hundred (200) feet of any

O&G Facility. WIND LESSEE will notify O&G LESSEE of any intended blasting operations more than twenty (20) days prior to commencement of same. If due to subsurface conditions, greater distances from O&G Facilities are required by O&G LESSEE to avoid damage to the O&G Facilities or subsurface support thereof, O&G LESSEE will notify WIND LESSEE within ten (10) days after such notice of additional setback requirements and the location thereof, and WIND LESSEE will comply with any reasonable requests by O&G LESSEE for such additional setback. WIND LESSEE will take all available precautions to shield the O&G Facilities against blasting debris. WIND LESSEE agrees to monitor any seismic surveying to ensure compliance with this Agreement.

(e) WIND LESSEE will provide O&G LESSEE at least twenty (20) days notice of any new construction or installation of Wind Facilities, including the nature and location of each item thereof, and notice upon completion of any such construction or installation. WIND LESSEE will provide O&G LESSEE such further information concerning the Wind Facilities as O&G LESSEE may reasonably request and as may be relevant to O&G LESSEE's operations on this Agreement, including maps or plats depicting the location of such Wind Facilities if prepared for WIND LESSEE. WIND LESSEE agrees to consult with O&G LESSEE concerning any matter in which O&G LESSEE perceives the possibility of conflict between the parties' respective uses of the Subject Premises.

4. Safe and Legal Operation. O&G LESSEE and WIND LESSEE each agree to conduct its respective operations on the Subject Premises in a safe and prudent manner, which specifically includes travel at safe speeds (forty-five (45) mile per hour during the day and thirty-five (35) miles per hour at night, or less) along roads across the Subject Premises, and in a manner that does not pose a danger to the property or personnel of the other or risk of contamination or pollution of the surface or subsurface or of water resources, and in full compliance with all applicable laws, rules, regulations and orders of any governmental authority having jurisdiction.

5. Road Use. O&G LESSEE and WIND LESSEE each agree that the other may use all roads located on or serving as access to the Subject Premises that are constructed or maintained by either Party, provided such Party has the right to grant such right to the other. Each Party agrees to repair all damage caused by its use to any jointly used road, and each of the parties agrees to bear and pay a proportionate share of the cost of maintaining such roads in good condition and repairing damage

that is not directly attributable to use by one Party or other, according to the amount of each respective Party's use. In the event that either party (the "Responsible Party") fails to repair any damage to a road caused by it or its agents or contractors, and such damage prevents or impedes the other party's (the "Non-Responsible Party") use thereof within a reasonable period of time (not to exceed ten (10) days) after notice to the Responsible Party, the Non-Responsible Party shall have the right to repair such damage and the Responsible Party shall reimburse the Non-Responsible Party for all costs incurred to repair such damage; provided, however, in the event the damage occurs during construction of Wind Facilities (in the case of damage caused by the O&G LESSEE), or drilling operations for oil or gas (in the case of damage caused by the WIND LESSEE), the Non-Responsible Party shall have the right to repair such damage if not repaired within forty-eight (48) hours after notice to the Responsible Party if the damage to such road impedes the Non-Responsible Party's construction or drilling operations, and the Responsible Party shall reimburse the Non-Responsible Party for all costs incurred to repair such damage.

6. Variations. Notwithstanding the distances proscribed in Paragraphs 2 and 3 above, in the event that either party believes that such party's operations or facilities can be conducted or placed within such proscribed distances without causing damage to or impacting the use of the other party's facilities or such parties' operations, such party (the "Requesting Party") may provide to the other party (the "Responding Party") notice of a requested variance from the proscribed distances, which notice shall include engineering analysis and data to support the Requesting Party's position that no detriment to the other party's facilities or operations will occur. In the event that the parties reach an agreement to allow the variance, the Requesting Party can proceed with such operations or facilities. If the Responding Party refuses to agree to such variance, the dispute shall be submitted to an independent engineer selected by the parties, whose determination shall be final. The fees and expenses of the independent engineer shall be paid by the Requesting Party if the independent engineer refuses to grant the variance and by the Responding Party if the independent engineer grants the variance.

7. Crossings. In constructing the Wind Facilities and O&G Facilities, the applicable Party (the "Crossing Party") may cross existing or proposed locations of pipelines, above or below ground electric and communication lines, and roads of the other Party (the "Crossed Party") with the same facilities of the Crossing Party, unless such crossings will unreasonable interfere with the operation or maintenance of such facilities. The Crossing Party will notify the Crossed Party of the approximate locations of any crossings and if any such crossings require the relocation

or reconstruction of any of the Crossed Party's Facilities, If relocation or reconstruction of any facilities of the Crossed Party is required, after consulting with the Crossed Party, the Crossing Party will relocate or reconstruct such facilities and will be responsible for any costs incurred by the Crossed Party in connection with such relocation or reconstruction.

8. Delivery Notices. All notices required or permitted under this Agreement shall be in writing and may be delivered personally, by mail, by commercial courier or delivery service, or by facsimile or other electronic transmission, and shall be deemed given when actually received by the recipient or delivered at the address of the receiving Party set forth below, or at such other address of which either Party may notify the other from time to time. Each Party agrees to notify the other as promptly as reasonably possible of any damage to the other caused by its operations. For such purpose, each Party agrees to furnish the other the name of a person or persons who will be available at all times to contact. Each Party further agrees to make reasonable efforts to notify the other Party as soon as reasonably possible in case of an emergency involving the other Party's operations or if it becomes aware of circumstances involving the other Party's operations or the parties' mutual rights and obligations that require prompt action to avoid damage, loss or liability. Notices hereunder shall be addressed as follows:

If to WIND LESSEE: address on page 1

If to O&G LESSEE: address on page 1

9. Severability. If any term or provision of this Agreement, or the application thereof to any person or circumstance shall, to any extent, be determined by judicial order or decision to be invalid or unenforceable, the remainder of this Agreement or the application of such term or provision to persons or circumstances other than those as to which it is held to be invalid, shall be enforced to the fullest extent permitted by law.

10. Governing Law. Except as otherwise provided herein, this Agreement be governed by the applicable laws of the State of Texas, and _____ County, Texas, shall be considered the proper forum or jurisdiction for any disputes arising in connection with this Agreement.

11. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed the original, and all of which together shall constitute a single instrument.

12. Authority. The signatories hereto warrant that each has the authority to execute this Agreement on behalf of any entities which are Parties to this Agreement and that each such entity has executed this

Agreement pursuant to its organizational documents or a resolution or consent of its governing body.

13. Counterpart Execution. This Agreement may be executed in any number of counterparts, and each counterpart shall be deemed to be an original instrument, but all such counterparts shall constitute but one Agreement. Signature and acknowledgment pages of all counterparts may all be attached to one counterpart for recording purposes.

14. Successors and Assigns. This Agreement shall be binding on the parties hereto and their respective heirs, successors and assigns, and the covenants and obligations expressed herein shall be covenants running with the ownership of the respective parties' interests in the Subject Premises. No Assignment of this Agreement shall be effective until the Party assigning this agreement furnishes the other Party a copy of the fully executed assignment.

[ATTACH SIGNATURE PAGE]

EXHIBIT A
to Accommodation Agreement

Description of Subject Premises

Wetsel & Carmichael, L.L.P. archives. This agreement is representative of agreements being used in the industry.

§ 9.11 Appendix IV: Release of Surface Rights by Oil and Gas Lessee and Mineral Owner

STATE OF TEXAS)
)
) Know All Persons By These Presents:
)
)
COUNTY OF _____)

This Release of Surface Rights is made by and between _____[*name and status of oil and gas lessee*] (“*Lessee/Operator*”), _____[*name and status of surface interest owner or developer*] (“*Developer*”), and _____[*name and status of mineral owner*] [(“*Mineral Owner*”) or, if there is more than one mineral owner, (collectively referred to as “*Mineral Owner*”)] as of this _____day of _____[*month and year*], with respect to that certain real property (the “*Property*”) described on Exhibit _____ [e.g., 1 (*set forth correct metes and bounds description of Property*)].

Whereas the parties to this instrument wish to accomplish the release of the surface rights described herein;

Now, therefore, for and in consideration of the sum of Ten Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged and agreed upon, the parties to this instrument agree as follows:

Surrender and Release by Lessee/Operator

- 1. Lessee/Operator surrenders and releases its surface drilling rights and all other rights of surface use granted by the Lease insofar as such rights cover and pertain to all parts of the Property, subject to the following exceptions and limitations:
 - a. Lessee/Operator does not release any of its rights under the Lease with respect to the _____[*number*] Drillsites, which are described on Exhibit _____[e.g., 2 (*set forth correct metes and bounds description of Drillsites*)].

- b. Lessee/Operator does not release any of its right, title, and interest under the Lease except as expressly provided herein.
- c. Lessee/Operator does not release any of the rights concurrently granted to it by Developer for the Drillsites, Setback Areas, and right-of-way Easements.
- d. Lessee/Operator specifically reserves and excepts from this Release all of its right, title, and interest with respect to the oil, gas, and all other minerals and substances contained in or produced from all lands covered by the Lease as to all depths below _____ [e.g., 200] feet.
- e. Lessee/Operator further reserves and excepts from this Release and retains for itself and its successors-in-interest, all rights under the Lease to explore for, to drill, and to produce oil, gas, and other minerals underlying or situated beneath the Property by any means whatsoever including wells directionally drilled from surface locations on nearby lands, and by pooling or unitizing all or part of the Property with nearby lands where Gas Operations may be conducted.

Surrender and Release by Mineral Owner

2. Mineral Owner surrenders and releases its surface drilling rights and all other rights of surface use to the Property, subject to the following exceptions and limitations:
 - a. Mineral Owner specifically reserves and excepts from this Release all of its right, title, and interest with respect to the oil, gas, and all other minerals and substances contained in or produced from the Property as to all depths below _____ [e.g. 2000] feet.
 - b. Mineral Owner further reserves and excepts from this Release and retains for itself and its successors-in-interest, all rights to explore for, to drill and produce oil, gas, and other minerals underlying or situated beneath the Property by any means whatsoever including wells directionally drilled from surface locations on nearby lands, and by pooling or unitizing all or part of the Property with nearby lands where Gas Operations may be conducted.

Working Interest Owners

3. Developer expressly recognizes that the Property is part of the Gas Unit, for which Lessee/Operator is the current operator. Lessee/Operator executes this Release both as Lessee under the Lease and

in its capacity of Operator of the Gas Unit. Developer agrees that all rights and benefits of this Release shall extend to the Working Interest Owners in the Gas Unit, their successors and assigns, and any successor Gas Unit Operator.

Counterparts/Binding

4. This instrument may be executed in any number of counterparts all of which when executed shall constitute one instrument. This instrument is binding upon and shall inure to the benefit of the heirs, executors, administrators, successors and assigns of the parties hereto.

[ATTACH SIGNATURE PAGE HERE]

Wetsel & Carmichael, L.L.P. archives.

