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ARTICLES

WIND FARMS AND NIMBYS: GENERATING CONFLICT, REDUCING LITIGATION

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I. INTRODUCTION

The term NIMBY (Not In My Backyard) is generally used pejoratively to refer to people who fight against the siting of public utilities, commercial enterprises, or new residential developments which may negatively affect nearby property values, local aesthetics, or the environment, but which might provide benefits to the larger community. NIMBYs generate hostility not only because they are fighting for their self-interest but because often, particularly if they have some measure of success in their opposition, they are among the more affluent. Fighting large corporations requires the resources to hire experts and legal counsel for, perhaps, years. It is not accidental that poor communities often have more than their share of utility installations and other commercial activities most people consider undesirable.[1]

What NIMBYs have been fighting has changed as technology has changed. Forty or fifty years ago, electric power stations were common targets.[2] Thirty years ago local communities would raise

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1. *See, e.g.*, Daniel R. Faber & Eric J. Krieg, *Unequal Exposure to Ecological Hazards: Environmental Injustices in the Commonwealth of Massachusetts*, 110 ENVTL. HEALTH PERSP. 277, 286-87 (2002).

2. *See, e.g.*, *In re* Long Island Lighting Co., 211 N.Y.S.2d 576 (Sup. Ct. 1961).

legal objections to nuclear generating plants.[3] After the federal Telecommunications Act of 1996 ("TCA")[4] was enacted, there were, and continue to be, many legal challenges to the siting of cell phone towers.[5] A new addition to the list of utility-type projects subject to fierce local objection is the wind farm.[6] What makes NIMBYs particularly unappealing in the cases of cell phone towers and wind farms is that most people favor cell phones and wind energy. In 2008 about 250 million people in the United States or eighty-two percent of the population were cell phone subscribers.[7] All of them want seamless service with no dropped calls, the purpose of installing more cell phone towers. Surveys have shown that people are also generally in favor of wind power to produce energy.[8] The problems

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3. *See, e.g.*, Consol. Edison Co. of N.Y. v. Hoffman, 374 N.E.2d 105 (N.Y. 1978).

4. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as enacted and amended in scattered sections of Titles 15, 18, and 47 of the United States Code).

5. *See, e.g.*, City of Rancho Palos Verdes v. Abrams, 544 U.S. 113 (2005); T-Mobile Cent., L.L.C. v. Unified Gov't, 546 F.3d 1299 (10th Cir. 2008); U.S. Cellular Corp. v. City of Wichita Falls, 364 F.3d 250 (5th Cir. 2004); ATC Realty, L.L.C. v. Town of Kingston, 303 F.3d 91 (1st Cir. 2002); Sw. Bell Mobile Sys. Inc. v. Todd, 244 F.3d 51 (1st Cir. 2001); T-Mobile S., L.L.C. v. City of Jacksonville, 564 F. Supp. 2d 1337 (M.D. Fla. 2008); Nextel W. Corp. v. Twp. of Scio, No. 07-11159, 2007 WL 2331871 (E.D. Mich. Aug. 13, 2007); Smart SMR of N.Y., Inc. v. Zoning Comm'n, 995 F. Supp. 52 (D. Conn. 1998); Sprint Spectrum LP v. Zoning Bd. of Bedminster, 2008 WL 877736 (N.J. Super. Ct. App. Div. Apr. 3, 2008).

6. *See, e.g.*, Ecogen, L.L.C. v. Town of Italy, 438 F. Supp. 2d 149 (W.D.N.Y. 2006); Kerncrest Audubon Soc'y v. City of Los Angeles, No. F050809, 2007 WL 2208806 (Cal. Ct. App. Aug. 2, 2007); Bomba v. Zoning Bd. of App., No. 293552, 2005 WL 2106162 (Mass. Land Ct. Sept. 1, 2005); Advocates for Prattsburgh, Inc. v. Steuben County, 851 N.Y.S.2d 759 (App. Div. 2008); W. Beekmantown Neighborhood Ass'n, v. Zoning Bd. of App., 861 N.Y.S.2d 864 (App. Div. 2008); Brander v. Town of Warren Town Bd., 847 N.Y.S.2d 450 (Sup. Ct. 2007); Friedhaber v. Town Bd., 851 N.Y.S.2d 58 (Sup. Ct. 2007); Trude v. Cohocton, 851 N.Y.S.2d 61 (Sup. Ct. 2007); Rankin v. FPL Energy, L.L.C., 266 S.W.3d 506 (Tex. App. 2008); *In re* Halnon, 811 A.2d 161 (Vt. 2002); Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council, 197 P.3d 1153 (Wash. 2008); Roberts v. Manitowoc County Bd. of Adjustment, 721 N.W.2d 499 (Wis. Ct. App. 2006).

7. Jonathan Sidener, *Cell Phones Taking on Many Roles, Transforming Market, Generation*, SAN DIEGO UNION-TRIB., Jan. 27, 2008, at A1.

8. *See, e.g.*, Am. Wind Energy Ass'n, Wind Web Tutorial: Wind Energy and the Environment, http://www.awea.org/faq/wwt_environment.html (last visited

arise because, although people want these services, most do not want to live near the installations necessary to make them work.[9]

Legal battles between the service providers and residents affected by service installations, and frequently local governments on one side or the other, are counterproductive. They waste resources and time that we can no longer afford. Therefore, it is easy to conclude that the few should stand aside for the many. That simplistic conclusion, however, ignores larger implications of NIMBYs' positions. Property values are important; aesthetics in life are important; and there are many important environmental concerns. Furthermore, it is not fair for a few residents to bear the brunt of modern technology's disadvantages with no recompense so that everyone else can reap the benefits at no personal cost. The goal should not be to let telecommunications and energy companies do whatever is easiest and cheapest for them to the detriment of local residents, but rather to have development that adapts to local priorities whenever possible and that results in compensation for those it disadvantages. At least some of the costs incurred would be offset by the elimination of litigation and delay. Cell phone companies often ignore local interests as long as they can and, because of that behavior, they have been litigating tower siting cases for twenty years.[10] Although there

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Nov. 24, 2009) (noting surveys have shown approximately 80% of U.S. residents are in favor of wind power with only about 5% opposed); Ryan Thomas Trahan, Note & Comment, *Social and Regulatory Control of Wind Energy —An Empirical Survey of Texas and Kansas*, 4 TEX. J. OIL GAS & ENERGY L. 89, 96 (2008–2009).

9. *See, e.g.*, Phoebe Sweet, *Winds of Change Blow Back —Searchlight Residents, Unlike Their Boulder City Counterparts, Staunchly Oppose Wind Farm Project*, LAS VEGAS SUN, Jan. 31, 2009, http://www.lasvegassun.com/news/2009/jan/31/winds-change-blow-back (citing a Searchlight, NV resident who said he supported wind and other renewable energy sources but not in his backyard).

10. *See, e.g.*, Sprint PCS Assets, L.L.C. v. City of La Canada Flintridge, 435 F.3d 993 (9th Cir. 2006); Tenn. *ex rel.* Wireless Income Props., L.L.C. v. City of Chattanooga, 403 F.3d 392 (6th Cir. 2005); T-Mobile S., L.L.C. v. Coweta County, 2009 WL 596012 (N.D. Ga. Mar. 5, 2009); Sprint Spectrum, L.P. v. Jeffersonville Bd. of Zoning, 2008 WL 833494 (S.D. Ind. Mar. 27, 2008); New Par v. Lake Twp., 2007 WL 541982 (W.D. Mich. Feb. 16, 2007); Fla. RSA #8, L.L.C. v. City of Chesterfield, 416 F. Supp. 2d 725 (E.D. Mo. 2006); Sprint Spectrum, L.P. v. Willoth, 996 F. Supp. 253 (W.D.N.Y. 1998); Paging, Inc. v. Bd. of Zoning Appeals, 957 F. Supp. 805 (W.D. Va. 1997); Sprint Spectrum, L.P. v. City of Medina, 924 F. Supp. 1036 (W.D. Wash. 1996); Oldham County Planning & Zoning Comm'n v. Courier Commc'ns Corp., 722 S.W.2d 904 (Ky. Ct. App.

are significant examples of litigation and delay in wind farm projects, there are examples of energy companies satisfying most people in local communities by paying all those affected by wind farm projects. In addition, state and local governments have been much more prepared and helpful in negotiating wind farm projects than in making decisions about cell phone towers.

For comparison purposes, this article briefly reviews the background of the cell phone tower siting issues[11] and then summarizes the most recent cases that have been litigated by residents trying to prevent tower installations. Next, wind farm projects are discussed and wind farm cases are detailed. The article discusses the positions of NIMBYs with respect to aesthetic and property value considerations. The article concludes that to reduce the delay and costs that litigation imposes on wind farm projects and, in fairness, to keep the larger community from getting the benefits of renewable energy while only property owners near the installations endure the associated costs, wind farm companies should pay not only landowners on whose properties the turbines are installed, but other owners who are negatively affected as well. In addition, the time and cost of educating and working with the local public during the planning stages should be viewed as resources well spent for future cost avoidance. When litigation results, in spite of all attempts at resolving NIMBYs' complaints, courts should apply a *Quechee*

1987); Crown Commc'n N.Y., Inc. v. Dep't of Transp., 824 N.E.2d 934 (N.Y. 2005); Payne v. Taylor, 578 N.Y.S.2d 327 (App. Div. 1991); Hawk v. Zoning Hearing Bd., 618 A.2d 1087 (Pa. Commw. Ct. 1992); Hilltop Terrace Homeowner's Assoc. v. Island County, 891 P.2d 29 (Wash. 1995).

11. The background of cell phone tower siting issues has been thoroughly discussed by this author and others. *See, e.g.*, Jeffrey A. Berger, *Efficient Wireless Tower Siting: an Alternative to Section 332(C)(7) of the Telecommunications Act of 1996*, 23 TEMP. ENVTL. L. & TECH. J. 83 (2004); Steven J. Eagle, *Wireless Telecommunications, Infrastructure Security, and the NIMBY Problem*, 54 CATH. U. L. REV. 445 (2005); Susan Lorde Martin, *Courts Interpret Telecommunications Act of 1996: Can Cellular Phone Companies Put Towers Wherever They Want?* 27 REAL EST. L.J. 390 (1999); Susan Lorde Martin, *Communications Tower Sitings: the Telecommunications Act of 1996 and the Battle for Community Control*, 12 BERKELEY TECH. L.J. 483 (1997); Susan Lorde Martin, *Communities and Telecommunications Corporations: Rethinking the Rules for Zoning Variances*, 33 AM. BUS. L.J. 235 (1995); Camille Rorer, Note, *Can You See Me Now? The Struggle between Cellular Towers and NIMBY*, 19 J. NAT. RESOURCES & ENVTL. L. 213 (2004-05).

test in recognition of the importance of aesthetics and scenic beauty to the human condition.

II. CELL PHONE TOWER SITING DISPUTES

Since cellular phone service was first offered in the United States in 1983[12] and to this day, local communities throughout the country have been fighting against having cell phone towers in their neighborhoods.[13] Local residents' primary concerns have been that proximity to a tower would create health hazards, would be aesthetically unpleasant, and would lower property values.[14] The federal TCA gave some help to telecommunications companies in

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12. CONTEL CELLULAR, INC., FORM 10-K ANNUAL REPORT , at 6 (Mar. 31, 1995) *available at http://www.secinfo.com/dsVsf.aTa.htm.*

13. *See, e.g.*, Charley Able, *Broadcast Towers All the Rage—Antennas Proposals Keep Officials Busy and Residents Angry*, ROCKY MTN. NEWS (Denver) Mar. 15, 2002, at 30A ; Lisa Buie, *Cellular Towers Bedevil Board*, HERNANDO TIMES (Hernando County, Fla.), Dec. 3, 1996, at 1; Al Frank, *Flagpole Cell Tower Doesn't Fly with Critics*, STAR-LEDGER (Newark, N.J.), Dec. 14, 2003, (Warren Edition) (County News), at 39 ; Lisa Frederick, *Towers Raise Ire as Cellular Phone Structures Spring Up, Some Residents Are Voicing Concerns,* ATLANTA J. CONST., Jan. 2, 1997, at 1; Tom Groening, *Lincolnville Planners Reject Cell-phone Tower*, BANGOR DAILY NEWS, Mar. 11, 2006, at C3; Christina Hernandez, *Roslyn: Board Explains Rejection of Cell Towers*, NEWSDAY (Melville, N.Y.), Feb. 12, 2009, at A38; Patrick Hoge, *East Bay Cell Phone Towers Opposed Proposals Would Put Antennas on Schools in Albany, El Cerrito*, S.F. CHRON., Oct. 8, 2004, B5; Bradley Keoun, *Cellular Tower Is Instant Irritant*, CHICAGO TRIB., July 30, 1999, at 1; Tom Morris, *LI's Towers of Controversy: A Necessity or Hazardous Eyesores?* NEWSDAY (Melville, N.Y.), Feb. 2, 1993, at 23; Lora Pabst, *Champlin Rejects Cell Phone Tower: The City Council Turned Down a Request to Build a Tower in Andrews Park after Citizens Protested the Proposal*, STAR TRIB. (Minneapolis, Minn.), June 13, 2007, at 6N.

14. *See, e.g.*, Mary Divine, *Stealth Tower on Track for Approval: County Proposes Smaller Structure that Looks Like Tree*, ST. PAUL PIONEER PRESS, Apr.17, 2008 (blemish on scenic landscape); Bill Mason, *Rockville Centre Antenna Plan Draws Criticism*, NEWSDAY (Melville, N.Y.), Apr. 23, 2008 (health concerns and property values); Tara Simpson, *South Butler Board Can Do Little to Stop Cell Tower*, VALLEY NEWS DISPATCH (Pittsburgh), Apr. 10, 2008 (Tarentun, Pennsylvania) (health problems and property values); Emily Vizzo, *Residents Resist Cell Tower*, SAN DIEGO UNION-TRIB., Apr. 26, 2008 (aesthetics and property values); Brent D. Wistrom, *Council Restricts Cell Phone Towers*, WICHITA EAGLE, Apr. 8, 2008, at B3 (eyesore and property values); Peter Wollheim, *Towering Hazard*, BOISE WKLY., Apr. 23, 2008, at 8 (eyesore and health hazards).

resisting their local opponents, but the legal battles show no sign of abating. The purpose of the TCA was to promote a pro-competitive, deregulatory environment for telecommunications providers that would secure lower prices, universal and better service, and faster access to new technologies for consumers.[15] To that end, the TCA provides that "[i]n general–[n]o State or local statute or regulation, or other State or local legal requirement, may prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."[16] The TCA does say, however, that state and local governments can still "impose . . . requirements necessary to . . . protect the public safety and welfare"[17] and can regulate "the placement, construction, and modification"[18] of service facilities as long as they do not "unreasonably discriminate among providers" or "prohibit or have the effect of prohibiting the provision of personal wireless services."[19] The TCA also eliminates a main argument that tower opponents frequently want to advance; it specifically prohibits states and local governments from regulating the placement and construction of cell phone towers on the basis of the environmental or health effects of electromagnetic fields if the facilities meet FCC standards for emissions.[20] Although many studies have been done on the health impact of electromagnetic fields, there is still no conclusive scientific data one way or the other.[21] The TCA also helps telecommunications companies by

15. Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (codified as enacted and amended in scattered sections of Titles 15, 18, and 47 of the United States Code); 141 CONG. REC. H8269 (daily ed. Aug. 2, 1995) (statement of Rep. Linder); S. REP. NO. 104-23, at 1-2 (1995); Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 61 Fed. Reg. 18, 311 (proposed Apr. 25, 1996) (to be codified at 47 C.F.R. ch. 1).

16. 47 U.S.C. § 253(a) (1996).

17. *Id.*

18. *Id.* § 332(c)(7)(A).

19. *Id.* § 332(c)(7)(B)(i)(I)-(II).

20. *Id.* § 332(c)(7)(B)(iv). Critics of this provision have complained that the FCC has set standards too low. *See generally*, PAUL BRODEUR, THE GREAT POWER-LINE COVER-UP: HOW THE UTILITIES AND THE GOVERNMENT ARE TRYING TO HIDE THE CANCER HAZARD POSED BY ELECTROMAGNETIC FIELDS (1993).

21. *See, e.g.*, COMM'N OF THE EUROPEAN COMMUNITIES, REPORT FROM THE COMMISSION OF THE APPLICATION OF COUNCIL RECOMMENDATION OF 12 JULY 1999 (1999/519/EC) ON THE LIMITATION OF THE EXPOSURE OF THE GENERAL PUBLIC TO ELECTROMAGNETIC FIELDS (0 HZ TO 300 GHZ) 2-4 (2008) (noting public's concern with health effects of exposure to electromagnetic fields and the

requiring state and local governments to respond to their requests to construct facilities "within a reasonable period of time" and to issue denials of requests in writing and supported by "substantial evidence contained in a written record."[22] It is difficult for local governments and residents to be expeditious in matching the staffs of lawyers and engineers, previously prepared research, and litigation experience that telecommunications companies have at the ready. In spite of thirteen years of experience under the TCA, lawsuits to stop the construction of cell phone towers are still ongoing throughout the country.[23]

Recent cell phone tower cases indicate that it may take a long time for the ambiguities of a statute to be dispelled through litigation, and that, for these TCA cases, it has taken a very long time for local governments to understand what courts have been telling them. Another explanation for local governments' seemingly long learning curve could be that they deny permits in response to pressure from their constituents even though it is reasonably certain that telecommunications companies will challenge their decisions in court and will ultimately prevail. For example, the Unified Government of Wyandotte County, Kansas denied T-Mobile Central's application for a special use permit to construct a cell phone tower because T-Mobile did not demonstrate that the denial would "'prohibit the provision of personal wireless services.'"[24] In affirming the District Court's overturning of the Unified Government's denial, the Tenth Circuit noted that the local zoning code did not require such a demonstration and that, by "inventing a criterion" not required by local ordinances, the Unified Government did not act "on the basis of substantial

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limited or sparse data available to assess those effects); TELECOMMUNICATION ENGINEERING CENTRE, DRAFT GUIDELINES FOR COMPLYING WITH LIMITS FOR HUMAN EXPOSURE TO ELECTROMAGNETIC FIELDS (BASE STATION ANTENNAS AND MOBILE TELEPHONES/ RADIO TERMINALS) 2 (April 2007) (noting inconclusive results of studies of harmful effects of electromagnetic fields on humans); Joy Campbell, *Neighbors against Cell Tower Plan*, MESSENGER-INQUIRER (Owensboro, Ky.), Dec. 24, 2008 (noting that American Cancer Society reports there is no full and final information about health effects of proximity to cell phone towers, but Society has not seen evidence that cell phone towers are health risk).

22. 47 U.S.C. § 332(c)(7)(B)(ii)-(iii).

23. *See, e.g., infra* notes 24-42 and accompanying text.

24. T-Mobile Central, L.L.C. v. Unified Gov't, 546 F.3d 1299, 1307 (10th Cir. 2008).

evidence."[25] By the end of 2008 when this decision was issued, many cases had been decided on the issue of whether the "substantial evidence" to support the denial of a cell phone tower permit had to refer to criteria existing in state or local law that had not been satisfied by the telecommunications company. In 2005 the Ninth Circuit stated that the "substantial evidence" language of the TCA requires local governments to make their decisions about cell phone tower permits based on applicable state and local laws.[26] In 2002 the Sixth Circuit concluded that the TCA's "substantial evidence" requirement had not been met to support an application denial because the applicant's alleged failure was not based on any criterion in the existing zoning code.[27] In 1999 the First Circuit held that "substantial evidence" has to be based on criteria existing in the zoning law.[28] The United States District Court for the Eastern District of Virginia decided in 1998 that "substantial evidence" requires reasons based on "objective criteria in existence" in zoning regulations, permit application policies, or the like.[29] Local governments cannot create new criteria to support their denials of applications.[30] Similar language can be found in opinions of the United States District Court for the Southern District of California[31] in 2003 and of the Tenth Circuit[32] in 2003.

Another case that illustrates how little attention local governments pay to what the law requires for a denial of a cell phone tower permit

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25. *Id.* at 1308. The court also held that the Unified Government's second reason for denying T-Mobile's application, that it was not using the least intrusive means of filling a gap in service, was similarly not required by local law and, therefore, could not be substantial evidence for its decision. *Id.* at 1309-10.

26. MetroPCS, Inc. v. City & County of San Francisco, 400 F.3d 715, 723-24 (9th Cir. 2005).

27. New Par v. City of Saginaw, 301 F.3d 390, 398 (6th Cir. 2002).

28. Town of Amherst v. Omnipoint Commc'n Enters., 173 F.3d 9, 14 (1st Cir. 1999).

29. Va. Metronet, Inc. v. Bd. of Supervisors, 984 F. Supp. 966, 974 n.14 (E.D. Va. 1998).

30. *Id.*

31. AT&T Wireless Servs., L.L.C. v. City of Carlsbad, 308 F. Supp. 2d 1148, 1163-64 (S.D. Cal. 2003).

32. U.S. Cellular Tel., L.L.C. v. City of Broken Arrow, 340 F.3d 1122, 1133 (10th Cir. 2003). *See also* Cellular Tel. Co. v. Zoning Bd. of Adjustment, 197 F.3d 64, 70 (3d Cir. 1999) (holding that criteria must exist in the local zoning ordinance).

was decided by the United States District Court for the Northern District of Georgia in 2009. In *T-Mobile South, LLC v. Coweta County*[33] the court granted T-Mobile's motion for summary judgment and ordered the county to issue a permit to T-Mobile for the construction of a 150-foot "monopine" pole (a pole disguised to look like a pine tree) after the county had denied the permit.[34] The county based its written denial, in part, on neighborhood opposition because of aesthetic concerns.[35] That opposition amounted to the testimony of one local resident who surmised that the pine tree disguise would be ineffective, that property values would go down, that there would be noise and light pollution, and that another property would be a more appropriate site.[36] The court concluded that these "aesthetic concerns" are "'generalized' and therefore cannot form 'substantial evidence.'"[37]

Courts have been deciding what kind of evidence is "substantial evidence" in TCA cases since 1996. Some of their conclusions are very clear. The same Northern District Court in Georgia decided in 1996 that Gwinnett County had violated the "substantial evidence" requirement of the TCA when its Board of Commissioners denied BellSouth a permit to erect a monopole after BellSouth had presented extensive documentation to support its permit application and residents opposing the permits expressed only "generalized concerns" which "do not constitute substantial evidence."[38] In 1998 the United States District Court for Connecticut issued an injunction ordering a local zoning commission to grant a special permit for reconstructing a church steeple which would house cellular phone antennas.[39] The commission denied the permit using "general criteria," but had no evidence to refute the cell phone company's evidence.[40] In 2002 the Eleventh Circuit specifically noted that "[a]esthetic concerns may be a valid basis for denial of a permit *if* substantial evidence of the

33. 2009 WL 596012 (N.D. Ga. Mar. 5, 2009).

34. *Id.* at *10.

35. *Id.* at *9.

36. *Id.*

37. *Id.*

38. Bellouth Mobility, Inc. v. Gwinnett County, 944 F. Supp. 923, 928 (N.D. Ga. 1996).

39. Cellco P'ship. v. Town Planning & Zoning Comm'n, 3 F. Supp. 2d 178 (D. Conn. 1998).

40. *Id.* at 183.

visual impact of [a] tower" is presented, but "citizens' generalized concerns about aesthetics are insufficient to constitute substantial evidence."[41] Just as generalized objections to cell phone towers are not sufficient to prevent the construction of a cell phone tower, neither are mere "suspicions."[42]

Although there are many cases like the foregoing in which local governments' denials of permit applications for cell phone towers have been overturned by courts because of nothing more than conclusory assertions to support the denials, other cases suggest that it is not that difficult for tower opponents to prevail. The City of Jacksonville, Florida successfully defended its denial of two applications by T-Mobile South to construct a camouflaged cell phone tower.[43] Although T-Mobile presented "voluminous submissions" to the city,[44] the court concluded that "'generalized concerns about aesthetics'" did not form the basis for the city's decision to deny the permit.[45] Twenty-six residents in the immediate vicinity of the proposed tower had signed petitions and testified about the specific effect of a tower on their property.[46] They provided uncontroverted testimony that new subdivisions were going to be built in proximity to the tower, and buffer trees were going to be torn down.[47] Perhaps most importantly, their testimony was particularized to the tower in question and was not "generalized hostility to cell towers."[48] The model offered by this case, as well as by other earlier cases,[49] indicates that the amount of evidence does

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41. Preferred Sites, L.L.C. v. Troup County, 296 F.3d 1210, 1219 (11th Cir. 2002); *see also* T-Mobile Cent., L.L.C. v. Unified Gov't, 546 F.3d 1299, 1312 (10th Cir. 2008) (holding that "[m]ere generalized concerns regarding aesthetics are insufficient to constitute substantial evidence justifying the denial of an application to construct a wireless telecommunications facility.").

42. Group EMF, Inc. v. Coweta County, 131 F. Supp. 2d 1335, 1344 (N.D. Ga. 2000).

43. T-Mobile S., L.L.C. v. City of Jacksonville, 564 F. Supp. 2d 1337 (M.D. Fla. 2008).

44. *Id.* at 1347.

45. *Id.*

46. *Id.*

47. *Id.*

48. *Id.* at 1349.

49. *See, e.g.*, New Brunswick Cellular Tel. Co. v. Borough of S. Plainfield Bd. of Adjustment, 701 A.2d 1281 (N.J. Super. Ct. App. Div. 1997) (concluding there was substantial testimony supporting denial of monopole permit because resident

not have to be "large or considerable,"[50] but merely "reasonably based upon evidence presented and not . . . upon [only] unsubstantiated conclusions."[51]

Although withstanding challenges to denials of applications for cell phone tower permits is not necessarily difficult, local governments and their resident constituents often do such a poor job of presenting their cases because they are lay people with limited resources fighting cellular phone companies that have professionals making their case. Nevertheless, all this litigation is a tremendous waste of time and money. If seamless cell phone service is a general community benefit, it is unreasonably delayed by litigation, which has to be paid for by taxpayers and cell phone ratepayers. Much of the opposition could be eliminated if cell phone companies offered to pay, not only the owner of the property on which the tower will be constructed, but also neighboring owners affected by a view of the tower. To reduce disputes and litigation, the telecommunications industry could also learn some lessons from energy companies developing wind farms and vice versa.

III. WIND FARM SITING DISPUTES

A. Background

Just as the TCA in 1996 encouraged the development of cell phone service, the federal Energy Policy Act of 1992[52] encouraged the growth of renewable energy, including wind power, not by limiting state and local regulation, but by providing a production tax credit that was a substantial incentive for wind farm investors.[53] The tax credit has been regularly renewed through successive acts of Congress, and it has made wind power economically attractive to

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opponents met company, expert-for-expert, at town hearings, including legal counsel, telecommunications consultant, and professional planner).

50. Pierce v. Underwood, 487 U.S. 552, 565 (1988).

51. *T-Mobile S.*, 564 F. Supp. 2d at 1345.

52. Pub. L. No. 102-486, § 2601, 106 Stat. 3113 (codified at 25 U.S.C. § 3501, 42 U.S.C. § 15852).

53. RYAN WISER ET AL., ERNEST ORLANDO LAWRENCE BERKELEY NAT'L LAB., USING THE FEDERAL PRODUCTION TAX CREDIT TO BUILD A DURABLE MARKET FOR WIND POWER IN THE UNITED STATES 1-2 (2007), *available at* http://eetd.lbl.gov/ea/ems/reports/63583.pdf.

investors in the United States.[54] Presidents (George W.) Bush and Obama continued the federal push to have more of U.S. energy needs met with wind power.[55] In President Obama's first prime-time news conference, he mentioned that the federal government's stimulus package would include direct investment in energy that would create jobs building wind turbines.[56] In February, the President signed the American Recovery and Reinvestment Act of 2009 which provided $16,800,000,000 for energy efficiency and renewable energy projects.[57] Of that amount, $118,000,000 will support development of wind energy.[58] The Department of Energy will provide $45,000,000 for the private sector to research and test next generation wind turbine drivetrain systems; $14,000,000 for the private sector to develop lighter weight, advanced materials for turbine blades and for

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54. *Id.* at 2-3.

55. 42 U.S.C. § 15852(a)-(b) (2005) (stating that President seeks to ensure that amount of electric energy used by federal government shall include renewable energy (including, by definition, electric energy generated from wind) amounting to not less than three percent of total in 2007 - 2009, not less than five percent of total in 2010 - 2012, and not less than seven and a half percent in 2013 and thereafter); American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, 123 Stat. 115, 138 (authorizing $16,800,000,000 for energy efficiency and renewable energy); Omnibus Appropriations Act of 2009, Pub. L. No. 111-8, 123 Stat. 524 (authorizing at least $100,000,000 for international development to promote energy efficiency and renewable energy). The American Recovery and Reinvestment Act of 2009, enacted in February 2009, created a renewable energy grant program that will be administered by the U.S. Department of Treasury. This cash grant may be taken in lieu of the federal business energy investment tax credit. The grant is equal to 30% of the basis of the property for small wind turbines. Eligible small wind property includes wind turbines up to 100 kW in capacity. The grant is equal to 10% of the basis of the property for microturbines. The grant for microturbines is capped at $200 per kW of capacity. Eligible property includes microturbines up to two megawatts (MW) in capacity that have an electricity-only generation efficiency of 26% or higher. *Id.*

56. President Barack Obama, White House Press Conference (Feb. 9, 2009) (transcript available at http://www.npr.org/templates/story/story.php?storyId=100490548&sc=emaf).

57. 123 Stat. 115, 138.

58. Press Release, U.S. Dep't of Energy, Secretary Chu Announces $93 Million from Recovery Act to Support Wind (Apr. 29, 2009), *available at* http://www.energy.gov/news2009/7358.htm; Press Release, U.S. Dep't of Energy, Governor Patrick Announce $25 Million for Massachusetts Wind Technology Testing Center, (May 12, 2009), *available at* http://www.energy.gov/news/7392.htm.

other advances in materials; $24,000,000 for consortia of universities and private industry to establish research and development programs focusing on wind energy problems; and $10,000,000 for its own National Wind Technology Center in Colorado.[59] The Massachusetts Wind Technology Testing Center will receive $25,000,000 to create the nation's first commercial large blade test facility, which will allow tests of blades longer than fifty meters.[60] Currently, those tests are being done in Europe but cannot be done in the United States, so U.S. companies are at a disadvantage.[61]

Although the drop in oil prices and the difficulty in securing financing in the beginning of 2009 has caused some alternative energy projects in the United States to be delayed, European and Asian wind power companies are entering the U.S. market.[62] Vestas Wind Systems, a Danish company that is the world's largest manufacturer of wind turbines, is firing workers in Europe but is planning on spending $1,000,000,000 to build six factories in Colorado and a research center in Houston, creating 4,000 U.S. jobs by the end of 2010.[63] Siemens, a German company, is opening a $50,000,000 turbine-parts factory in Kansas.[64] The Spanish company Gamesa, the second largest turbine manufacturer in the world, opened a turbine production plant in Iowa in 2008.[65] The Indian company Suzlon will be providing the wind turbines for a Duke Energy wind farm project in Cheyenne, Wyoming.[66] In fact, through 2008 the growth of wind energy capacity in the United States has

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59. U.S. Dep't of Energy, Secretary Chu Announces $93 Million from Recovery Act to Support Wind, *supra* note 58.

60. U.S. Dep't of Energy, Governor Patrick Announce $25 Million for Massachusetts Wind Technology Testing Center, *supra* note 58.

61. *Id.*

62. Paul Glader, *Wind-Power Giant Keeps to Its Course*, WALL ST. J., May 5, 2009, at B10.

63. *Id.*

64. *Id.*

65. *New Technologies in Spain*: *Wind Power*, TECH. REV. 2008, at 4, (part of the *New Technologies in Spain Series*), *available at* http://www.technologyreview/microsites/spain/wind/docs/spain_wind_brochure.pdf.

66. Press Release, Suzlon Energy Ltd., Suzlon Signs 42 MW US Repeat Order with Duke Energy (Apr. 1, 2009), *available at* http://www.suzlon.com/images/Media_Center_Press_release/83_Duke_Energy_Announcement_1Apr09.pdf.

been quite substantial so that by the beginning of 2009, the wind industry was producing 25,170 megawatts of generating capacity, enough to supply almost seven million homes.[67]

In the case of cell phone towers, government involvement has generally meant the federal government encouraging their construction, local governments (urged by local residents) impeding construction, and states being largely absent from the fray. State governments have, in contrast, been very active in supporting the construction of wind turbines.[68] Every state has at least one program providing incentives to create renewable energy projects, including wind power, and many states have many programs.[69] Programs include net metering which allows customers to offset their own utility company consumption by having their electric meters turn backwards when they are generating electricity in excess of their own demand;[70] personal and corporate state tax credits; prohibitions on residential covenants that prohibit wind turbine installations; and

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67. Press Release, American Wind Energy Association, Wind Energy Grows by Record 8,300 MW in 2008 (Jan. 27, 2009), *available at* http:// www.awea.org/newsroom/releases.; EMILY BERRY ET AL., OVERCOMING OBSTACLES TO WIND POWER DEVELOPMENT IN MAINE 4 (2005), *available at* www.umaine.edu/nrc/Curriculum/2005 Wind Paper.pdf. (noting that the average home in the United States uses about 10,000 kilowatts of electricity annually).

68. *See* Database of State Incentives for Renewables & Efficiency, Financial Incentives, *available at* http://www.dsireusa.org/library/includes/techno.cfm?EE=0&RE=1 (last visited Mar. 6, 2009). One commentator, noting that the federal government has limited the prerogatives of local governments in issuing permits for cell phone towers but not for wind farms, has proposed that states should have a state agency that has the final word on whether a wind project will be built; this would eliminate the caprice in decision-making by local governments. Although such an arrangement might be more efficient in developing general energy policy, it would probably exacerbate the NIMBY problem by making those affected by wind farm projects more removed from the process. Those states that have been proactive in preparing guidelines for local communities to use in developing their own rules for deciding on wind farm permit applications have probably been most useful in streamlining the process without infringing on local decision-making. Ronald H. Rosenberg, *Making Renewable Energy a Reality – Finding Ways to Site Wind Power Facilities*, 32 WM. & MARY ENVTL. L. & POL'Y REV. 635, 676 (2008).

69. Database of State Incentives for Renewables & Efficiency, *supra* note 68.

70. U.S. Dep't of Energy, Net Metering Policies, http://apps3.eere.energy.gov/greenpower/markets/netmetering.shtml (last visited Mar.17, 2009).

grant programs.[71] States have also provided guidelines for local governments to use for permitting wind energy facilities describing standards for safety, construction, visual appearance, setbacks, noise, road repair, shadow flicker,[72] ice throw, blade shear, insurance, site restoration, abandonment, and dispute resolution.[73] In providing financial incentives and guidelines, states have recognized that the two chief obstacles to the development of wind power projects are financing and local objections.[74]

B. Wind Farms – Local Objectors and Supporters

1. Objectors

A wind energy project Duke Energy proposed for Nevada in December 2008 is instructive as a view on early local reactions to such proposals. Nevada currently has no operating wind power

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71. Database of State Incentives for Renewables & Efficiency, *supra* note 68.

72. Videos are available on the Internet that provide examples of the noise and shadow flicker associated with wind turbines. *See, e.g.*, Wind Turbine Shadow Flicker and Noise, Byron, Wisconsin, http://www.youtube.com/watch?v=iyOImGHyJtQ (last visited Oct. 22, 2009) (showing the difference if turbines are sited closer to or further from homes. This video illustrates that turbine noise at about 1100 feet is much louder than a passing car at the same distance, sounding more like a jet engine overhead. It also demonstrates shadow flicker inside a home); *see also* Home in a Wind Farm: Living with PSC Approved Setbacks in Fond du Lac, Wisconsin, http://www.youtube.com/watch?v=XRb-MWfQYTk&NR=1 (last visited Oct. 22, 2009); Wind Turbine Noise at 1600 Feet, http://www.youtube.com/watch?v=KoVKP0G_f8M&feature=related (last visited Oct. 22, 2009) (noting decibel level in the upper 60s at 1600 feet). *But see* Palm Springs WindMills "Secrets of the WindMills," http://www.youtube.com/watch?v=vSDmgeobBRY (last visited Oct. 22, 2009) (positive view of wind farm).

73. *See, e.g.*, BERRY ET AL., *supra* note 67; N.Y. State Energy Research & Dev. Auth., Wind Development—Wind Energy Toolkit (2004), http://www.powernaturally.org/Programs/Wind/toolkit.asp; Pa. Dep't of Envtl. Prot., Model Ordinance for Wind Energy Facilities in Pennsylvania (2006), *available at* http://www.depweb.state.pa.us/energy/lib/energy/docs/wind_model_ordinance_draft_(12-8-06).doc. Guidelines have also been developed in Kansas, Michigan, Minnesota, Oregon, South Dakota, Texas, Washington, and Wisconsin. BERRY ET AL., *supra* note 67, at 12.

74. BERRY ET AL., *supra* note 67, at 2.

projects.[75] Duke Energy proposed a 370-megawatt wind farm with 161 wind turbine generators on public lands just east of Searchlight, Nevada, about an hour outside of Las Vegas.[76] The wind farm would produce enough electrical energy to serve more than 100,000 homes.[77] The turbine blades, on 262-foot tall towers, would reach 415 feet in the air, and the project would require new access roads, transmission lines, substations, switchyard, maintenance building, and meteorological masts to measure wind speed, all to be located on 24,000 acres of public land.[78] At the start of the regulatory review process, which will probably take about two years, the Nevada Bureau of Land Management announced three public meetings in Searchlight and surrounding towns and encouraged the public to submit oral or written comments.[79] By the time of the first meeting, Duke Energy had agreed to move some of the proposed turbines in response to residents' complaints.[80] At the meetings, local residents complained that the turbines would be "ugly, noisy and deadly to wildlife," especially blackhawks and bats.[81] They worried that the wind farm would confuse airport radar systems,[82] that ice shards would be thrown by the blades and injure people,[83] and that they would lose "their view, property values, wildlife, access to public lands, and quiet place to retire."[84] In on-line comments in response to a news article about the meeting, people from Las Vegas wrote in

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75. John G. Edwards & Steve Tetrault, *Wind Farm Floated in State,* LAS VEGAS REV.–J., Dec. 19, 2008, *available at* http://www.lvrj.com/business/36431834.html.

76. BUREAU OF LAND MGMT., LAS VEGAS FIELD OFFICE, NEVADA, SEARCHLIGHT WIND ENERGY PROJECT (2009), *available at* http://www.blm.gov/pgdata/etc/medialib/blm/nv/field_offices/las_vegas_field_office/energy.Par.0221.File.dat/Searchlight%20Wind%20Energy%20Newsletter.pdf.

77. *Id.*

78. *Id.*

79. *Id.*

80. Cassie Tomlin, *Proposed Wind Farm near Searchlight Worries Some Residents*, LAS VEGAS SUN, Jan. 28, 2009, *available at* http://www.lasvegassun.com/news/2009/jan/28/proposed-wind-farm-near-searchlight-worries-some-r.

81. *Id.*

82. *Id.*

83. Phoebe Sweet, *Winds of Change Blow Back*, LAS VEGAS SUN, Feb. 2, 2009, at 1.

84. Posting of NyeCountyLocal to Discussion, http://www.lasvegassun.com/news/2009/jan/28/proposed-wind-farm-near-searchlight-worries-some-r (Jan. 30, 2009, 08:31 MDT).

support of the wind farm noting that the United States was running out of oil and was too dependent on foreign oil and that their electric bills were too high.[85] A Searchlight resident wrote that more than a hundred local residents were at the meeting, and everyone who spoke was against the wind farm.[86] Many of the residents are retirees who moved to Searchlight for quiet and the spectacular scenery.[87] One woman said she moved to Searchlight to get away from "the ugly wind farm mess in Palm Springs."[88] There is evidence that rural residents feel taken advantage of because they have to see and hear the turbines while city dwellers will get reduced electric rates and feel good about protecting the environment.[89]

Some local objections are raised by environmentalists. Although one of the main advantages of wind power is that it does not contribute to global warming as fossil fuels do, one of the frequent local objections is the negative impact wind farms can have on birds and bats.[90] In 2004, 4000 bats and hundreds of migratory birds were killed at a wind farm in West Virginia.[91] The wind farm at Altamont Pass in California experienced large numbers of bird and bat deaths.[92]

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85. Posting of Newtothis to Discussion, http://www.lasvegassun.com/news/2009/jan/28/proposed-wind-farm-near-searchlight-worries-some-r (Jan. 28, 2009, 14:14 MDT); Posting of getalife to Discussion, http://www.lasvegassun.com/news/2009/jan/28/proposed-wind-farm-near-searchlight-worries-some-r (Jan. 28, 2009, 14:21 MDT).

86. Posting of NyeCountyLocal, *supra* note 84.

87. *Id.*

88. *Id.*

89. *See, e.g.*, Harlan Hentges, *Why Farmers Don't Like Wind Energy*, Aug. 1, 2008, HARLAN HEDGES, http://organiclawyers.com/blog/farming-and-ranching/11-why-farmers-dont-like-wind-energy.html.

90. Adam Hochberg, *Wind Farms Draw Mixed Response in Appalachia* (NPR radio broadcast, Mar. 27, 2006), *available at* http://www.npr.org/templates/story/story.php?storyId=5300507 (noting that Virginia Audubon Council opposes wind farms because of threat to bats and birds); BERRY ET AL., *supra* note 67, at 5.

91. John Hayes, *Animal Mortality Study Helps Wind Farms*, PITTSBURGH POST-GAZETTE, Jan. 31, 2009, at DD (noting that twenty wind energy companies agreed to "'avoid, minimize and mitigate' the impact of wind turbines on wild birds and mammals").

92. SUSAN COMBS, TEXAS COMPROLLER OF PUBLIC ACCOUNTS,THE ENERGY REPORT 2008 172 (2008), *available at* http://www.window.state.tx.us/specialrpt/energy/pdf/96-1266EnergyReport.pdf;

2. Supporters

Cell phone and wind energy companies and some environmentalists are not the only ones on the pro-construction side of these disputes. Wind farms and cell phone towers always have support in the community from those on whose land the installations will be constructed.[93] Those are the people who have agreed to the construction because they are being paid, sometimes reaping a considerable windfall. They may be individuals, community organizations, or local governments. In Lakewood Ranch, Florida the community would get $750,000 over thirty years to allow the installation of a 150-foot cell phone tower.[94] In Monterey Park, California, the city would get $30,000 per year per site for allowing T-Mobile to construct two cell phones in city parks, one disguised as a pine tree, the other disguised as a clock tower with a Japanese pagoda theme.[95] A typical farmer in a rural area can expect to earn royalties of between $3000 and $5000 a year per wind turbine.[96] That is not an insubstantial amount of money, particularly in the current economic climate, and when one farmer may host multiple turbines. Although the turbines may be 300 or 400 feet in height, they may require a space of only fifteen feet without vegetation, so farmers can still use their surrounding land for grazing and other farming activities.[97]

In Colorado, Kansas, New Mexico, and Wyoming, some landowners are pooling their land to form wind associations that

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see also Kerncrest Audubon Soc'y v. City of Los Angeles, No. F050809, 2007 WL 2208806 (Cal. Ct. App. Aug. 2, 2007) (discussing the methodology used to identify and study potential adverse effects of wind farms on birds).

93. *But see* Rebecca George, *Cell Tower Built on City Property, Deed Reveals*, FAIRBANKS DAILY NEWS-MINER, Sept. 24, 2008 (noting that when Alaska DigiTel erroneously built a cell phone tower on city property and offered to pay city $1000 a month, Fairbanks mayor continued to insist on tower's removal because neighborhood residents did not want it).

94. Halle Stockton, *Tower Proposal Stokes Uprising*, SARASOTA HERALD TRIB., Nov. 21, 2008, at 1, *available at* http://www.heraldtribune.com/article/20081121/ARTICLE/811210343.

95. Amanda Baumfeld, *Meeting Attracts Cell Tower Opponents*, SAN GABRIEL VALLEY TRIB., Dec. 10, 2008.

96. Irina Dashevsky, *Got Wind?*, 13 PUB. INT. L. REP. 126, 127 (2008).

97. *Id.*

market the land to wind energy companies.[98] They approach dozens of companies looking for the best price and then share the proceeds of their contracts with everyone in the association, including those that do not have turbines on their property.[99] Royalties could be hundreds of thousands of dollars a year.[100]

Rock Port, Missouri has become the first community in the United States to be powered completely by wind.[101] It has four turbines that provide more electricity than the 1300 residents can use.[102] Residents are enthusiastic about the turbines because they will keep energy costs down and, they hope, stabilize their economy, encourage good jobs and, ultimately, keep the town's young people from moving away.[103]

Perhaps the most enthusiastic wind farm proponents are in Texas which has the most installed wind power in the nation.[104] Wind farms have become a major source of rural economic development.[105] In Nolan County, for example, property values doubled in a few years, and they estimate that they had another twenty-five percent increase in 2008.[106] Local businesspeople describe themselves as being in a "bubble" insulated from the rest of the economy.[107] One rancher has seventy-eight turbines on his property for which he is paid $500 a month apiece, and he expects to get seventy-six more.[108]

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98. Addie Gross, *Wind Farms Could Bring Wyoming Ranchers Windfall* (NPR radio broadcast, Dec. 26, 2008), *available at* http://www.npr.org/templates/story/story.php?storyId=98741271.

99. *Id.*

100. *Id.*

101. Frank Morris, *Missouri Town Is Running on Vapor—and Thriving*, (NPR radio broadcast, Aug. 9, 2008), *available at* http://www.npr.org/templates/story/story.php?storyId=93208355.

102. *Id.*

103. *Id.*

104. Clifford Krauss, *Move Over, Oil, There's Money in Texas Wind*, N.Y. TIMES, Feb. 23, 2008, at A1.

105. *Id.*

106. *Id.*

107. *Id.*

108. *Id.*

IV. NIMBYs

NIMBYs have not been so fortunate. They see themselves as involuntarily giving but getting nothing in return. In light of the benefits of cell phones and wind energy, it would be easy to dismiss NIMBYs as selfish spoilsports, but practical good policy requires a more nuanced approach. First, NIMBYs cost money and time; second, they are not necessarily wrong; and third, many times they can be accommodated without forgoing the towers or turbines. The primary motivators for tower and turbine NIMBYs is a fear of a loss in property value and in aesthetic enjoyment.[109]

A. Property Values

There is research and anecdotal evidence that both supports and negates the loss of property values. Confirming the facts in any particular case is difficult because the problem is so geographically specific; it is not conclusive to analogize from a study in one location to a dispute in another. The practical result of this difficulty is that NIMBYs will not be convinced that their property will not be worth less if it suddenly faces a wind farm or a cell phone tower. There have been many studies in the United States and other countries that have attempted to quantify the costs to local residents of the presence of wind farms, but overall they have been inconclusive and their methodology has been questioned.[110]

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109. *See, e.g.*, Chris English, *Residents Oppose Variance for Cell Tower*, BUCKS COUNTY COURIER TIMES, Aug. 15, 2008 (noting Lower Makefield, Pennsylvania residents' opposition to T-Mobile's proposal to build 100-foot monopole because of its affect on quality of life and property values); Justin Falconer, *Bedford County to Review Two Cell Phone Towers*, NEWS & ADVANCE (Lynchburg, V.A.), Aug. 25, 2008, *available at* http://www2.newsadvance.com/lna/news/local/article/bedford_county_to_review_two_cell_phone_towers/7687 (reporting that some residents consider two proposed 80-foot cell phone towers "'eyesores' and a threat to property values"); *Ouray County Board of Commissioners Issues Minutes of Sept. 8 Meeting*, U.S. STATE NEWS, Sept. 8, 2008 (reporting on Log Hill Village (Colorado) Architectural Control Committee opinion that its scenic, residential community was terrible location for 80-foot tower which would negatively affect property values and aesthetic enjoyment).

110. *See, e.g.*, PETER J. POLETT, POLETTI AND ASSOCIATES, INC., A REAL ESTATE STUDY OF THE PROPOSED FORWARD WIND ENERGY CENTER DODGE AND FOND DU LAC COUNTIES, WISCONSIN (2005), *available at*

In 2005, researchers in New Zealand did surveys and market sales analyses and, using multiple regression analysis in a hedonic pricing framework[111] to measure the impact of proximity to cell phone towers, concluded that towers have a negative impact on prices of homes in the areas studied.[112] One surprising result of the surveys was that the control group respondents were much more concerned about the effect a tower would have on aesthetics and property values than were the case study respondents who lived in communities with cell phone towers.[113] More than sixty percent of case study respondents were not worried about cell phone towers affecting aesthetics or property value, and only thirteen percent were worried a lot about those issues.[114] On the other hand, among the control group, almost half were worried a lot about those issues.[115] The researchers guessed that the indifference of many case study respondents may be due to their not having their neighborhood

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http://psc.wi.gov/apps/erf_share/view/viewdoc.aspx?docid=35184 (finding insufficient evidence that wind farms affect property values but did not consider whether or not homes studied had view of turbines or their distance from turbines); GEORGE STERZINGER ET AL., RENEWABLE ENERGY POLICY PROJECT, THE EFFECT OF WIND DEVELOPMENT ON LOCAL PROPERTY VALUES (2003) , *available at* http://www.repp.org/articles/static/1/binaries/wind_online_final.pdf (finding no support for claim that wind farms harm property values but including sales data for transactions that were not at market conditions (e.g., between family members, resulting from divorce) and assuming all properties within five-mile radius could see turbines when some views were obstructed by trees, houses, hills, etc.).

111. Hedonic analysis is an attempt by economists to quantify different attributes of a home (e.g., size of house, number of bedrooms, distance from a cell phone tower) to determine its contribution to the sales price. Albert R. Wilson, *The Problem of Faulty Analyses—Can We Rely on Current Methods in Determining Right of Way Impact on Neighboring Properties?*, RIGHT OF WAY, Jan./Feb. 2006, at 21, 22, *available at* http://www.irwaonline.org/EWEB/upload/ROW Archives 7-05 thru 7-06/106/Faulty Analyses.pdf. Some professionals have criticized the method arguing that the only way to assess the value of different home attributes is to compare sales of similar homes, but it is, of course, very difficult to find sufficient numbers of comparable sales. *Id.* at 22-23.

112. Sandy Bond & Ko-Kang Wang, *The Impact of Cell Phone Towers on House Prices in Residential Neighborhoods,* APPRAISAL J., Jun. 22, 2005, at 256, *available at* http://findarticles.com/p/articles/mi_hb6683/is_200506/ai_n26480163/?tag=content;col1.

113. *Id.*

114. *Id.*

115. *Id.*

towers visible from their homes or their fear that an admission of concern about the towers would make their property values decline.[116]

A similar study was done in Florida in 2007 analyzing single-family homes sold in Orange County between 1990 and 2000.[117] Results indicated that after a tower was built home prices decreased by a little more than two percent on average (an effect that was statistically significant but very small), and the decrease lessened as the distance from the tower became greater, becoming negligible at about 656 feet.[118]

A hedonic pricing study was also done in the United Kingdom in 2007 to assess the impact of wind farms on home prices.[119] It was inconclusive, the authors surmising perhaps because of the unavailability of property specific data.[120] They also noted that property stigma caused by the visibility of installations like wind farms and cell phone towers can reduce property values, but the effect is hard to quantify because it is created by perceptions that can change in response to portrayals in the media, the passage of time, and a person's specific relationship to the property in question.[121] Forty percent of survey respondents believed there was no negative price impact on residential sales prices.[122] Sixty-three percent thought there was no negative impact on the sales prices of

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116. *Id.*

117. Sandy Bond, *The Effect of Distance to Cell Phone Towers on House Prices in Florida*, APPRAISAL J., Sept. 22, 2007, at 362, *available at* http://www.entrepreneur.com/tradejournals/article/171851340.html.

118. *Id.*; *see also* Stephen Grover,ECONorthwest, Economic Impacts of Wind Power in Kittatas County, Presentation at Cape Wind Public Outreach in Hyannis, MA, Jan. 30, 2003, *available at* http://www.masstech.org/offshore/Meeting5/GroverPresentation.pdf (noting that in survey of thirteen counties near Kittatas County wind farm project in state of Washington, no tax assessor had changed property assessments based on views of turbines).

119. Sally Sims & Peter Dent, *Modelling the Impact Windfarms Have on House Prices in the UK*, 12 INT'L J. STRATEGIC PROP. MGMT. 251 (2008), *available at* http://www.ijspm.vgtu.lt/upload/property_zurn/ijspm%202008%20vol%2012%20no%204%20p%20251-269.pdf.

120. *Id.* at 1.

121. *Id.* at 3.

122. *Id.*

agricultural land.[123] Generally, survey respondents believed that the greatest negative impact on home prices occurred when the wind farm was in the planning, application, and construction stages, and that the negative impact lessened over time as the specific attributes of a project became known.[124]

A 2008 study in Western Australia indicated that although the majority of respondents were in favor of wind farms, they did not want to live near (within one to five kilometers) a wind farm.[125] Thirty-eight percent of survey respondents said they would pay one to nine percent less for their property because of a nearby wind farm.[126]

B. Aesthetics

A study in Denmark, one of the world leaders in generation of wind power, indicated that although both local people who lived near wind farms and the general national population favor offshore wind farms, local people were less favorably inclined toward them.[127] Moreover, people who lived near the Nysted wind farm in the North Sea that was only about six miles offshore were more critical than those who lived near Horns Rev, an eighty-turbine wind farm in the North Sea that is between 8½ and 12½ miles offshore.[128] The study showed that people were willing to pay for future wind farms to be far enough away from shore so that their visual impact would be significantly reduced.[129] Nysted residents also had a higher willingness to pay to have the turbines moved out of sight completely.[130]

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123. *Id.*

124. *Id.* at 9.

125. Sandy Bond, *Attitudes Towards the Development of Wind Farms in Australia*, 8(3) ENVTL. HEALTH 19 (2008).

126. *Id.*

127. DANISH OFFSHORE WIND: KEY ENVIRONMENTAL ISSUES 16 (2006), *available at* http://193.88.185.141/Graphics/Publikationer/Havvindmoeller/havvindmoellebog_nov_2006_skrm.pdf.

128. *Id.*

129. *Id.*

130. *Id.*

1. Cape Wind

Classic examples of aesthetic objections to a wind farm project are those associated with the proposed Cape Wind project off the Cape Cod coast. The project, developed by Energy Management, a U.S. company, involves the installation of 130 wind turbines in Nantucket Sound about six miles from shore.[131] Legal wrangling over the project has been ongoing since 2001 when the project was first proposed, and it has been highly publicized because of the list of the project's opponents. The main opposition has come from the Alliance to Protect Nantucket Sound whose members included the late Senator Edward Kennedy (who had a home from which the turbines would be visible), former Massachusetts Governor Mitt Romney, former Massachusetts Attorney General Tom Reilly, and Congressman William Delahunt.[132] Objections include danger to seabirds and migrating songbirds, risks to fisherman and vessels of all sorts in navigation channels, interference with radar systems, and mostly, damage to views and its concomitant effects on tourism and the wilderness experience.[133]

It is easy and obvious to belittle the objections of property owners concerned about scenery, especially when they are wealthy and powerful, and when the environmental advantages of wind energy would benefit the community at large.[134] It is, however, counterproductive to allow litigation to keep projects from moving forward instead of realistically dealing with the objections even though costs of the project will increase. In May 2009 a Barnstable, Massachusetts Superior Court judge dismissed the Town of

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131. Robert F. Kennedy, Jr., *An Ill Wind Off Cape Cod*, N.Y. TIMES, Dec. 16, 2005, *available at* http://www.nytimes.com/2005/12/16/opinion/16kennedy.html.

132. Iva Ziza, Note, *Siting of Renewable Energy Facilities and Adversarial Legalism: Lessons from Cape Cod*, 42 NEW ENG. L. REV. 591, 594-95 (2008).

133. Kennedy, *supra* note 131. In February 2009, 25 tribes asked the Dep't of the Interior to stop the Cape Wind project because it was on a sacred site. *National Organizations Call Upon Feds to Halt Review of Cape Wind Alliance to Protect Nantucket Sound*, SCI. LETTER, Apr. 28, 2009, at 2840 [hereinafter SCI. LETTER]. The Passenger Vessel Association also asked the Dep't of the Interior to stop the Cape Wind project because it threatened the safety of passengers on ferries. *Id.* The Aircraft Owners and Pilots Association which represents two thirds of all U.S. pilots asked the Federal Aviation Administration to oppose the project because of the hazard it posed to radar systems that controlled 400,000 annual flights. *Id.*

134. *See, e.g.*, Ziza, *supra* note 132, at 605.

Barnstable's suit against Cape Wind holding that the town had failed to exhaust its administrative remedies in arguing that the Massachusetts Energy Facilities Siting Board could not issue a permit to Cape Wind because the Cape Cod Commission had exclusive jurisdiction over permits for the transmission lines needed for the wind farm.[135] As the judge noted, the case is, of course, not over, because the town can wait for the siting board's final decision and then challenge it in the Massachusetts Supreme Judicial Court.[136] There are other lawsuits pending including two against state agencies, the Secretary of Energy and Environmental Affairs and the Office of Coastal Management, that ruled in favor of Cape Wind.[137]

Those objecting to the Cape Wind project and other offshore wind farms have suggested moving the turbines further from the coast line.[138] Cape Wind has responded that the technology is not available to have the turbines further away.[139] Although it is beyond the scope of this article to judge the technological and economic feasibility of moving the turbines far enough offshore to satisfy Cape Wind opponents, it is the dispute itself that can be instructive for future wind power developers.

2. Deep-Water Wind

The difficulties associated with further-from-shore, deeper-water (greater than thirty meters) turbines have been well-documented.[140] Nevertheless, there are enough deep-water projects moving forward

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135. Patrick Cassidy, *Barnstable's Lawsuit Against Cape Wind Is Thrown Out*, CAPE COD TIMES, May 8, 2009, *available at* http://www.capecodonline.com/apps/pbcs.dll/article?AID=/20090508/NEWS/905080329/-1/NEWS01.

136. *Id.*

137. *Id.*

138. *See, e.g.*, Kennedy, *supra* note 131; SCI. LETTER, *supra* note 133.

139. Cape Wind, Project at Glance, http://www.capewind.org/article24.htm (last visited Mar. 19, 2009).

140. *See, e.g.*, James F. Manwell, Professor and Director of Renewable Energy Research Laboratory, Univ. of MA Amherst, Overview of Offshore Wind Energy Technology, Address at the EBC Seminar Series on Offshore Wind Energy (Sept. 28, 2007) (powerpoint presentation available at http://www.ebcne.org/fileadmin/pres/09-28-07_Manwell_2.pdf) (noting that deep water wind energy has higher costs and technology is not commercially available); *New Technologies in Spain: Wind Power*, *supra* note 65, at 3 (noting that technological problems for siting turbines in deep water have not yet been solved).

and enough information about adapting existing technologies to keep Cape Wind opponents litigating and delaying. In May 2008 the Norwegian oil and gas producer StatoilHydro and Germany's Siemens announced that they were partnering to install the first commercial-scale deep-water turbine in the North Sea off the coast of Norway by the fall of 2009.[141] The turbine will be floating in more than two hundred meters of water on a conventional oil and gas platform.[142] The appeal of this project is that it relies on mature technologies that have been well tested. StatoilHydro has agreed that deep-water wind power is now very expensive but expects that some of the cost will be defrayed by stronger and more consistent winds that keep the turbines turning and generating more hours of electricity.[143] Wind blowing ten meters per second can generate five times as much electricity as wind blowing half as fast, but turbines at sea can cost at least fifty percent more than those built on land.[144]

Blue H, a Dutch company, has also adapted oil rig platforms to support wind turbines.[145] In 2007 it launched its first platform off the coast of Italy, and it is now constructing its first commercial platform for an offshore wind farm twenty kilometers from the coast of Puglia in water at least one hundred meters deep.[146] In contrast, Sway, a

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141. Peter Fairley, *Wind Power Moves into Deep Waters*, TECH. REV., June 4, 2008, *available at* http://www.technologyreview.com/energy/20854/?a=f.

142. *Id.*

143. *Id.*

144. Economist.com, *Wind Power: Blowing at Sea*, ECONOMIST, May 7, 2008, *available at* http://www.economist.com/science/tm/displaystory.cfm?story_id=11323401.

145. Press Release, Blue H, Nomination for Lease: Submits Deepwater Wind Energy (Mar. 10, 2008), *available at* http://www.bluehgroup.com/company-newsandpress-080310.php.

146. *Id.* SeaEnergy Renewables of the United Kingdom is another company using oil and gas rig technology to site large wind turbines far off shore. Susan Wilson, *SeaEnergy Renewables: Building Offshore Deep Water Wind Farms*, TECH.BLORGE, Feb. 14, 2009, http://tech.blorge.com/Structure:%20/2009/02/14/seaenergy-renewables-building-off-shore-deep-water-wind-farms. It built the Beatrice Wind Farm in the North Sea 15.5 miles off the coast of Scotland in forty-five meters of water. *Id.* Principle Power, located in Seattle, has entered into an agreement with Energias de Portugal to develop a wind farm off the coast of Portugal using its floating foundation technology for deep-water wind turbines. Press Release, Principal Power, Principle Power and EDP Sign MOA for Phased Offshore Wind Power Project (Feb. 18,

Norwegian company, has developed an entirely new technology based on floating towers to support the turbines.[147] Sway states that its purpose is to overcome the economic and aesthetic arguments against wind power.[148] The Norwegian power utility Lyse has invested $6,000,000 in Sway.[149] If Sway's floating towers are successful, Lyse plans on constructing a deep-water wind farm by 2015.[150] A Lyse spokesperson has noted that the large amount of electricity that could be produced will probably be more important than the price and that the European Union will have to develop an economic model to make renewable energy feasible.[151] One estimate of costs indicates the following. A land turbine producing 2.5 megawatts of electricity costs about $4,000,000 including installation but not including the cost of leasing the land.[152] A 2.5 megawatt turbine in shallow water costs about $5,000,000 to $7,000,000.[153] A Sway turbine will produce at least 5 megawatts and will cost $20,000,000 installed including the cost of the cable connecting the turbine to land twenty miles away.[154] The Sway turbine is supposed to produce 22,000,000 kilowatt-hours a year, whereas a similar land turbine would produce 15,000,000 kilowatt-hours.[155] Considering the costs of maintenance and amortizing the capital costs over twenty years, the electricity cost would be approximately nine cents per kilowatt hour.[156] For general comparison purposes, the state of Oregon has estimated the wholesale cost (in cents per kilowatt hour) of generating electricity in the Pacific Northwest from renewable sources: natural gas, 2.7; hydroelectric, 1.1 to 7.0; geothermal, 5.2 to

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2009), *available at* http://www.principlepowerinc.com/news/press_EDP_MOA.html.

147. Posting of Philip Proefrock to EcoeGeek, http://www.ecogeek.org/content/view/1397 (Feb. 25, 2008).

148. Sway, Changing the Future of Wind Power, http://www.sway.no/ (last visited May 15, 2009).

149. Andy Stone, *Deepwater Wind*, FORBES, Feb. 25, 2008, *available at* http://www.forbes.com/forbes/2008/0225/062.html.

150. *Id.*

151. *Id.*

152. *Id.*

153. *Id.*

154. *Id.*

155. *Id.*

156. *Id.*

6.5; wind, 5.3 to 8.1; solar thermal, 8.6; solar voltaic, 19.4 to 23.6.[157] In downstate New York, wind power can cost 2.5 cents more than electricity generated by other means which costs about thirteen or fourteen cents a kilowatt hour.[158]

Paul Sclavounos, professor of mechanical engineering and naval architecture in the Department of Ocean Engineering at MIT, has said that the technology for deep-water turbines is available; keeping costs down is the remaining obstacle.[159] He predicts that the deep-water wind turbine industry will be flourishing by about 2013.[160] Most experts agree that the industry will be successful, although some think it will take longer than that.[161]

In the meantime, not far from Cape Wind, plans for a $1,500,000,000 wind farm project off Block Island in Rhode Island are proceeding.[162] Learning from the Cape Wind experience, Deepwater Wind, the company chosen for the project, has spent millions of dollars on environmental impact studies, and the state is using academic scientists to do extensive studies to determine the best sites for the turbines.[163] Deepwater claims that it is able to use offshore platform technology proven in the oil and gas industries to build wind farms far enough off shore to be invisible from land.[164] Deepwater's web site acknowledges "coastal community resistance to offshore wind development; understandably, people simply don't

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157. Oregon.gov, Estimating the Cost of Generating Electricity, http://www.oregon.gov/ENERGY/RENEW/costs.shtml (last visited Aug. 1, 2007).

158. Jane L. Levere, *Some of the Bright Lights of New York's Businesses Are Powered by Wind*, N.Y. TIMES, Apr. 22, 2009, at B5, *available at* http://www.nytimes.com/2009/04/22/business/energy-environment/22wind.html.

159. PAUL D. SCLAVOUNOS ET AL., FLOATING OFFSHORE WIND TURBINES: RESPONSES IN A SEASTATE PARETO OPTIMAL DESIGNS AND ECONOMIC ASSESSMENT 1 (2007) *available at http://web.mit.edu/flowlab/pdf/Floating_Offshore_Wind_Turbines.pdf.*

160. Economist.com, *supra* note 144.

161. *Id.*

162. Peter B. Lord, *Deepwater Wind Project Making Headway*, PROV. J., Apr. 24, 2009, *available at* http://www.projo.com/news/environment/content/Wind_Power_Ecology_04-24-09_VLE4UFH_v6.35ce766.html.

163. *Id.*

164. Deepwater Wind, Clean Energy Is Just Over the Horizon, http://www.dwwind.com (last visited Nov. 7, 2009).

want to look at wind turbines from their beachfront homes."[165] Deepwater claims it can "create abundant energy without harming the environment or degrading the beauty of our natural landscapes."[166] The extensive Cape Wind web site addresses opponents' calls for moving their proposed turbines further offshore with a couple of three-year-old articles that compare deep-water turbines to photovoltaic cells that "have existed since the early 1900s and have yet to evolve into competitive large-scale energy sources."[167] With all the activity involving deep-water wind power, it is easy to see why Cape Wind opponents would not find the developer's dismissal of its possibility persuasive, whether or not it is accurate. As long as they can afford it, unconvinced NIMBYs will be litigating and delaying.

C. NIMBY Cases

In spite of a lack of general quantitative evidence that wind farms have a negative impact on homeowners, NIMBYs continue to believe that they do as indicated by the time, energy, and resources they are willing to spend in pursuing litigation to stop their construction. They have pursued cases all across the country using a variety of causes of action to prevent the construction of wind farms.

1. Constitutional Claims

In upstate New York, residents attempted to have the court annul final approval of an environmental impact statement created in support of a proposed wind farm by claiming that the approved setback requirements would amount to a de facto constitutional taking.[168] The court decided that the wind farm would be located on land owned by the developer and that the setbacks would not restrict neighboring property owners and, therefore, with no direct encroachment on private property even though its use might be impaired, no constitutional taking would occur.[169] Also in upstate

165. Deepwater Wind, The Challenge, http://www.dwwind.com/challenge.html (last visited Nov. 7, 2009).

166. *Id.*

167. Charles Kleekamp, *The Allure of Deep-Water Wind Power*, Jun. 1, 2006, *available at* http://www.capewind.org/news678.htm.

168. Advocates for Prattsburgh, Inc. v. Steuben County, 851 N.Y.S.2d 759, 761 (App. Div. 2008).

169. *Id.*

New York, property owners brought court proceedings to annul the Prattsburgh town board's decision to assert eminent domain over parts of their property to create easements so the developer of a wind farm could run underground electric lines.[170] The court concluded that the property owners' claims about the town supervisor's alleged conflict of interest did not raise an issue of deprivation of constitutional rights, and the town board's findings that the condemnation would lead to jobs and possible economic development constituted a sufficient basis for concluding that the condemnation would benefit the public.[171] Controversy about this wind farm project had been going on for six years, since 2003.[172] When the property owners were unsuccessful in the Appellate Division on their constitutional claim, they immediately filed suit in New York's Supreme Court (the trial court) arguing that the conflict of interest violated New York statutes, and they lost again with the court concluding that although the town supervisor did receive some money from the wind farm developer for his work as a real estate broker, it was not likely that the commission influenced his vote to condemn their property.[173]

In 2006 in Manitowoc County, Wisconsin, local residents unsuccessfully raised due process issues in opposition to a conditional use permit granted for the construction of a forty-nine-turbine wind farm.[174] Residents called the town board's hearing process "arbitrary and capricious" because speakers were limited to five minutes each, but the presenter on behalf of Navitas Energy, the owner of the wind farm, was given much more time than that.[175] The court noted that at least sixteen residents spoke against the wind farm at the hearing, and there was nothing unreasonable about the time limit or the way it was applied.[176] The following year, Navitas proposed construction of a 40-turbine wind farm in El Paso,

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170. Dudley v. Town Bd., 872 N.Y.S.2d 614, 615 (App. Div. 2009).

171. *Id.* at 615-16.

172. Dudley v. Town Bd., No. 100,345, 2009 WL 513401 (N.Y. Sup. Ct. Feb. 26, 2009).

173. *Id.* at *4.

174. Roberts v. Manitowoc County Bd. of Adjustment, 721 N.W.2d 499 (Wis. Ct. App. 2006).

175. *Id.* at 505.

176. *Id.* at 505-506.

Illinois.[177] After being stymied for a year by hundreds of angry citizens at county board meetings, Navitas hired Saint Consulting Group to neutralize opposition.[178] Saint is a $30-million-a-year public relations and political firm, employing many former campaign managers, that is currently involved in 135 controversies in the United States, Canada, and the United Kingdom.[179] Its clients are developers like Navitas trying to get a project built or businesses trying to eliminate a competitor's project.[180] For Navitas, Saint held a kite-flying event in a park, distributed pinwheels to children at a parade, and disparaged protestors as carpetbaggers.[181] In 2008, the county board voted in favor of Navitas' wind farm and construction is expected to start in 2010.[182]

2. Local Property Ordinance Claims

Following the Manitowoc/Navitas case, Manitowoc County enacted a moratorium on granting permits for wind farms and then enacted a revised wind energy system ordinance.[183] Emerging Energies applied for a conditional use permit to build a seven-turbine wind farm under the old ordinance.[184] On application of opponents of the wind farm, the circuit court ordered the board of adjustment to consider the application under the revised rules.[185] Emerging Energies brought a declarative judgment action challenging the new ordinance as a violation of a state statute limiting the restrictions a county can put on a wind energy system.[186] The Wisconsin Court of Appeals held that Emerging Energies' case was not ripe because its application had not yet had restrictions put on it nor had it been rejected.[187]

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177. Emily Lambert, *Nimby Wars*, FORBES, Feb. 16, 2009, http://www.forbes.com/forbes/2009/0216/098_print.html.

178. *Id.*

179. *Id.*

180. *Id.*

181. *Id.*

182. *Id.*

183. Emerging Energies, LLP v. Manitowoc County, No. 2008AP1508, 2009 WL 529910, at *1 (Wis. Ct. App. Mar. 4, 2009).

184. *Id.*

185. *Id.*

186. *Id.*

187. *Id.* at *2.

In Massachusetts, residents abutting a wind farm were successful in having a building permit revoked for two meteorological towers associated with a wind farm.[188] The towers were monopoles of 165 and 130 feet although Princeton bylaws set a structure height limit of 35 feet.[189] The local zoning board and wind farm company argued that the towers fell under the bylaw exemption for public buildings.[190] The court held that the towers were not public because they were owned by CEI, a private corporation, and they were not buildings.[191] The towers also did not fall under an exception for "towers," because under the bylaws the only towers that were protected were ones "carried above roofs," not freestanding ones.[192]

In Pennsylvania, local residents attempted to overturn the county planning commission's conditional approval of a 124-turbine wind farm by arguing that the developer, AES, was not a proper "applicant" under the local planning code because AES was not a "landowner" as required.[193] AES had executed and recorded with the county recorder of deeds option agreements to lease over 4000 acres in Tioga County.[194] The court agreed with AES that although its future interest did not make it a "landowner," the actual landowners conferred the necessary property interests through the option agreements to make AES a proper applicant.[195]

3. Notice Claims

In Maryland, residents opposing a wind farm consisting of sixty-seven turbines argued that they were interested parties because the proposed wind farm would adversely affect their property values and, therefore, they should have received personal notice of the Maryland Public Service Commission's hearing on Clipper Windpower's application to build the wind farm.[196] The court concluded that the

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188. Bomba v. Zoning Bd. of Appeals, No. 293552, 2005 WL 2106162 (Mass. Land Ct. Sept. 1, 2005).

189. *Id.* at *2.

190. *Id.*

191. *Id.* at *5-6.

192. *Id.* at *6.

193. Tioga Pres. Group v. Tioga County Planning Comm'n, 970 A.2d 1200, 1203 (Pa. Commw. Ct. 2009).

194. *Id.* at 1202.

195. *Id.* at 1204.

196. Sprenger v. Pub. Serv. Comm'n, 926 A.2d 238, 246-47 (Md. 2007).

relevant Maryland statute required only notice to interested persons, not personal service; moreover, the residents had failed to exhaust their administrative remedies before seeking a declaratory judgment in court.[197]

4. Nuisance Claims

Residents with homes near proposed wind farms have also tried to stop their construction by claiming they were private nuisances. A private nuisance "is a substantial and unreasonable interference with the private use and enjoyment of another's land."[198] Several homeowners within two miles of a proposed 200-turbine wind farm in West Virginia asked the court to enjoin the construction because it would create a private nuisance.[199] The residents complained about noise, light flicker, ice throws, and a reduction in property values.[200] The Supreme Court of Appeals in West Virginia asserted the importance of the interests of nearby landowners when the Public Service Commission is balancing interests in deciding on which projects may proceed.[201] The court held that noise alone may be a nuisance depending on "time, locality and degree," and light flicker that creates an eyesore when combined with other interferences to the enjoyment of property may be abated as a nuisance.[202] The court also held that merely rendering a neighboring property less valuable will not constitute a nuisance but, when combined with other interferences, it too can be abated as a nuisance.[203]

In Texas, plaintiffs also brought a lawsuit against a wind farm operator based on nuisance.[204] Like the West Virginia homeowners, the Texas plaintiffs complained about noise and light flicker and argued that when those factors exist, visual impact or aesthetics should also be considered as a condition that creates a nuisance.[205] The Texas Court of Appeals went to some lengths to explain that

197. *Id.* at 252-55.

198. Burch v. Nedpower Mount Storm, L.L.C., 647 S.E.2d 879, 882 (W. Va. 2007).

199. *Id.* at 885.

200. *Id.*

201. *Id.* at 889.

202. *Id.* at 891.

203. *Id.* at 892.

204. Rankin v. FPL Energy, L.L.C., 266 S.W.3d 506 (Tex. App. 2008).

205. *Id.* at 510.

Texas courts have not found a nuisance merely on the basis of aesthetics, that is, because an "annoyance" is "'unsightly or disfigured' or 'unpleasant to the eye.'"[206] The court noted the plaintiffs' "consistent theme" of 400-foot-tall turbines diminishing scenic beauty and enjoyment of their property and concluded that it was their emotional response to the turbines that caused their nuisance and, under Texas law, that was not sufficient to sustain a nuisance claim.[207] The court's opinion suggests that the plaintiffs emphasized the wrong things in their testimony, dwelling on their bad feelings about having their views interrupted instead of on the turbines' blinking lights, shadow flicker, and noise. The court described successful nuisance actions that generally involve "invasion of a plaintiff's property by light, sound, odor, or a foreign substance."[208] Certainly, turbines' light flicker inside nearby homes during the day and noise whenever the turbines are turning would constitute more than aesthetic-based complaints and be actionable in Texas as they were in West Virginia.

5. Other Claims

In California it was not NIMBYs but a wildlife protection association that attempted to stop the operation of the very large wind farm in Altamont Pass by claiming that the operators were violating the public trust doctrine.[209] The California court held that the public trust doctrine requires the state "to preserve and protect the public's interest in common natural resources," including wildlife.[210] The association sued the wind farm operators claiming that their more than 5,000 wind turbines had killed about 25,000 raptors including more than 1,000 golden eagles.[211] The court held that although any member of the public, including this association, has standing to raise a claim of harm to the public trust, the claim has to be against the governmental agencies charged with protecting the public trust, e.g.,

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206. *Id.* (citing Shamburger v. Scheurrer, 198 S.W. 1069 (Tex. Civ. App. 1917)).

207. *Id.* at 511.

208. *Id.* at 509.

209. Ctr. for Biological Diversity, Inc. v. FPL Group, Inc., 83 Cal. Rptr. 3d 588 (Cal. Ct. App. 2008).

210. *Id.* at 597-99 (citing *In re* Steuart Transp. Co., 495 F. Supp. 38, 40 (E.D. Va. 1980)).

211. *Id.* at 592.

the county that authorized the wind farm or the department of fish and game that is responsible for protecting natural resources, not against the operators of the wind farm.[212]

In Texas another environmental group attempted to stop the construction of a wind farm on land adjoining the Laguna Madre, an environmentally sensitive long, shallow bay between the Texas mainland and Padre Island.[213] The group, Coastal Habitat Alliance, claimed that it was being deprived of its rights under the federal Coastal Zone Management Act of 1972 (CZMA) and the Texas Coastal Management Program.[214] The CZMA offers financial and technical assistance to states that create a management program for coastal land and water use that includes provisions for protecting wetlands and planning for energy facilities that may affect the coastal zone.[215] In its lawsuit, the Alliance claimed that the wind farm developers and the relevant state agencies violated the CZMA and the Texas Program by not holding public hearings or conducting appropriate environmental reviews on the wind farm project.[216] The federal court dismissed the case holding that the statutes did not confer a private right of action on private parties.[217]

Other homeowners in California and New York and in a number of other states have used the courts in their attempts to stop the construction of wind turbines, usually unsuccessfully.[218]

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212. *Id.* at 599-605.

213. Coastal Habitat Alliance v. Patterson, 601 F. Supp. 2d 868, 870 (W.D. Tex. 2008).

214. *Id.* at 871.

215. *Id.*

216. *Id.* at 874-75.

217. *Id.* at 880-82.

218. *See, e.g.*, Kerncrest Audubon Soc'y v. City of Los Angeles, 2007 WL 2208806 (Cal. Ct. App. Aug. 2, 2007); West Beekmantown Neighborhood Ass'n v. Zoning Bd. of Appeals, 861 N.Y.S.2d 864 (App. Div. 2008); Trude v. Town Bd., 851 N.Y.S.2d 61 (Sup. Ct. 2007); Rassier v. Houim, 488 N.W.2d 635 (N.D. 1992); Rankin v. FPL Energy, L.L.C., 266 S.W.3d 506 (Tex. App. 2008); Miller v. Highland County, 650 S.E.2d 532 (Va. 2007); Residents Opposed to Kittitas Turbines v. State Energy Facility Site Evaluation Council, 197 P.3d 1153 (Wash. 2008). *But see* Brander v. Town of Warren Town Bd., 847 N.Y.S.2d 450 (Sup. Ct. 2007) (annulling special use permits for constructing 68-turbine wind farm because: the town board did not support its conclusions with field studies or expert reports to provide necessary quantitative and scientific information; and did not make sufficient plans to mitigate adverse environmental impacts; and therefore,

V. RESPECTING NIMBYS TO ELIMINATE LITIGATION AND DELAY

Some social scientists explain that NIMBY behavior is based on one of three motivations: ignorance or irrationality, selfishness, or prudence.[219] Another commentator describes NIMBYs as democratically forcing consideration of a variety of options, protecting property values, and even helping to maintain forces for development.[220] Which ever one, or combination, explains NIMBY objections to cell phone towers and wind farms, developers of these projects would be served well to address them early in their planning processes.[221]

A. Paying to Eliminate Litigation and Delay

Costs associated with fighting wind farms is an issue in other countries, as well as in the United States. In England as in the United States, property owners are concerned that their local governments do not have the resources to defend in court their decisions to refuse a permit for a wind farm when applicant companies appeal.[222] All this litigation results in additional delay and cost in achieving the goal of having renewable energy sources replace reliance on fossil fuels. Another source of delay arises from local communities enacting temporary moratoriums to give themselves time to develop the expertise to understand appropriate siting and safety issues.[223] Maine produces more wind energy than any other state in New England, but its residents have not become inured to the presence of wind farms,

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grant of the permits was arbitrary, capricious and unsupported by substantial evidence).

219. Jacob Glickel, Siting Wind Turbines: Collaborative Processes and Joint Fact Finding to Resolve NIMBY Disputes 2 (Spring 2004) (unpublished PhD/MCP paper, Massachusetts Institute of Technology) (on file with MIT OpenCourseWare, Massachusetts Institute of Technology), *available at* http://web.mit.edu/dusp/epp/music/pdf/glickel.pdf.

220. Matthew J. Keifer, *The Social Functions of NIMBYism*, HARV. DESIGN MAG., Spring/Summmer 2008, at 9, *available at* http://www.planetizen.com/node/34505.

221. Glickel, *supra* note 219, at 6.

222. Richard Cowen et al., Letter to the Editor, *Voice of the North – CPRE Very Worried about Wind Farms*, THE JOURNAL (Newcastle, England), Feb. 2, 2009, at 10.

223. *See, e.g.*, Kevin Miller, *Dixmont to Vote on Wind Energy Moratorium*, BANGOR DAILY NEWS, Feb. 2, 2009, at 5.

and towns continue to enact moratoriums to avoid "devaluation, blight, issues affecting public health and welfare, and environmental degradation" in response to applications for wind farm permits.[224] Other towns, including about a dozen in New York State such as Italy, Malone, Naples, and South Bristol have gone further and banned wind farms completely,[225] an action that would be impermissible for cell phone towers because of the TCA.

One older study conducted in Denmark suggests a solution to the problems of litigation, cost and delay. Denmark for many years has been, and continues to be, the world leader in wind power.[226] The Danish wind turbine industry has a forty percent share of the world market, and twenty percent of Danish electric production comes from wind.[227] The study, conducted in 1996, evaluated the costs from the visual effect and noise of windmills[228] and the willingness of people living near wind turbines to pay to get rid of them.[229] One hundred and two wind turbine installations were studied.[230] The study

224. *Id.* (language from Dixmont, Maine moratorium passed Feb. 5, 2009). A draft of Dixmont's proposed ordinance for wind farms is available on the town's web site at www.townofdixmont.org. *See also* Nick Sambides, Jr., *NRCM Reschedules Wind Energy Forum at Lincoln School*, BANGOR DAILY NEWS, Feb. 2, 2009, at 2 (noting wind farm critics' complaints that project on Rollins Mountain would reduce property values because of light flicker and low-decibel sound).

225. Amy Cavalier, *Worried about the Winds of Change*, MESSENGER POST (Canandaigua, N.Y.), Jan. 23, 2007, at B002, *available at* http://nl.newsbank.com/nl-search/we/Archives?p_action=doc&p_docid=116E8453AB886ECF&p_docnum=1&p_theme=gatehouse&s_site=MPNP&p_product=MPNP; Ecogen, L.L.C. v. Town of Italy, 438 F. Supp. 2d 149, 152 (W.D.N.Y. 2006).

226. Risø DTU National Laboratory for Sustainable Energy, Wind Energy, http://www.risoe.dk/Research/sustainable_energy/wind_energy.aspx (last visited Nov. 17, 2009).

227. *Id.*

228. It should be noted that turbine technology has changed in the ensuing years, and so it is possible that turbines are actually considerably quieter now than they were in 1996. *See, e.g.*, AUSTRALIAN WIND ENERGY ASS'N, WIND FARMS AND NOISE 1 (2005), http://www.parliament.sa.gov.au/NR/rdonlyres/809E5306-1F1E-4967-B58B-9EE56707E56D/2287/noise.pdf.

229. JØRGEN JORDAL-JØRGENSEN, AKF, SOCIAL ASSESSMENT OF WIND POWER: VISUAL EFFECT AND NOISE FROM WINDMILLS—QUANTIFYING AND VALUATION (Apr. 1996), *available at* www.semantise.com/~lewiswindfarms/Download Store/Public Attitudes Downloads/AKF - Social Assessment of Wind Power(Denmark).pdf.

230. *Id.* at 1.

indicated that on average eight homes were affected by a single turbine, six homes by a cluster of turbines, and twelve homes by a wind farm.[231] Of the residents in those homes, thirteen percent considered the turbines a nuisance.[232] The costs of this nuisance, when calculated on the basis of residents' willingness to pay to remove the turbines, averaged about $250 a year.[233] A second part of the study compared prices of similar houses close to a single wind turbine, close to a wind farm with twelve turbines, and farther away.[234] Homes close to a single turbine were approximately $4000 cheaper than other similar houses, and homes close to a wind farm were approximately $24,000 cheaper, suggesting that buyers are willing to pay more not to be close to a wind turbine.[235] Overall, the study showed that although there are costs associated with the negative perceptions of living close to wind turbines, they are relatively small compared to all the other costs of creating wind farms.[236] On the other hand, the costs to a few households are considerable and, therefore, it is understandable that those residents would fight the installation of wind farms.[237] When you consider that those who live the very closest to wind farms, that is, those on whose property the turbines are actually located, do not consider them a nuisance at all (because they are being paid), a clear answer is that other nearby residents should be paid too.[238]

Wind farms use the resources of the owners of the properties on which the turbines and auxiliary structures are actually located; those owners get paid and are happy with the arrangement. (If they were not, the wind farms would have to go elsewhere.) Neighbors, not chosen to host the physical presence, get nothing, although the impact of the turbines on them is not that different from that of their

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231. *Id.*

232. *Id.*

233. *Id.* This number was extrapolated very roughly from the study data taking into consideration the exchange rate between the Danish kroner and the U.S. dollar and the rate of inflation from 1996 to the present.

234. *Id.* at 2.

235. *Id.* The numbers are a rough estimate taking into consideration the exchange rate between the Danish kroner and the U.S. dollar and the rate of inflation from 1996 to the present.

236. *Id.* at 2.

237. *Id.*

238. *Id.*

windfall-grabbing neighbors. It is obvious why this arrangement has created some very litigious people. A local resident in Stutsman County, North Dakota where the zoning board is drafting a wind zoning ordinance, has suggested that wind farm companies should pay into a pool which would distribute twenty-five percent to the owner of the property on which the turbines are actually located, and the rest to the surrounding landowners who experience visual and noise impacts.[239] This exact formula may not be workable, but the idea of paying the potential NIMBYs is a good one.

In fact, some wind farm developers have started to do just that. In Cloud County, Kansas, a county commissioner has noted how accepting her community has been of wind farms unlike what has happened in other parts of the state.[240] Perhaps the acceptance of Horizon Wind Energy's[241] project that features turbines larger and more powerful than those in the rest of the state extending across 20,000 acres of farmland[242] is based on the company's offer to pay each landowner twenty dollars per acre annually for land within the 20,000 acres of the wind farm that does not have a turbine located on it.[243] Owners of land with turbines on it will be paid six dollars per acre per month plus a quarterly payment per turbine.[244] In addition, all sixty-seven landowners participating in the project will receive a percentage of the profits based on the power purchase agreement with the utility company, Westar Energy.[245] Keep in mind that the average landowner in the project owns 300 acres.

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239. Keith Norman, *Zoning Board Hears Wind Presentations*, JAMESTOWN SUN (N.D.), Jan. 30, 2009.

240. Sarah Kessinger, *State's Largest Wind Farm is Cloud County's Windfall*, HUTCHNEWS.COM, Apr. 8, 2008, *available at* http://www.hutchnews.com/Print/wind2008-04-08T21-03-46; *see* Brian Dietz, Comment, *Turbines vs. Tallgrass: Law, Policy, and a New Solution to Conflict over Wind Farms in the Kansas Flint Hills*, 54 U. KAN. L. REV. 1131 (2006), for a discussion of a conflict in Kansas over wind farms.

241. Horizon Wind Energy of Houston is a subsidiary of Portugal's largest utility company. Kessinger, *supra* note 240.

242. *Id.* They are the largest turbines currently manufactured, and their parts are described as "massive." Devin Lowell, *Wind Farm Will Turn Resource into Energy*, CONCORDIA BLADE-EMPIRE, June 16, 2008, *available at* http://www.bladeempire.com/web/isite.dll?1213640133142.

243. Trahan, *supra* note 8, at 98.

244. *Id.* at 98-99.

245. *Id.* at 99; Lowell, *supra* note 242.

B. Using a Quechee *Test to Eliminate Litigation and Delay*

NIMBYs generally cite aesthetic concerns to explain their opposition to cell phone towers and wind farms. Often those concerns are viewed as frivolous in comparison to the benefit to the broader community served by cell phones and renewable energy. What is not frivolous is the money and delay caused by NIMBY litigation to end these projects and, clearly, mere name-calling will not end the litigation. There is precedent in the state of Vermont for judging the worthiness of aesthetic arguments that is instructive for resolving the NIMBY problem.

The beauty of Vermont is an important asset for the state's residents and for its economy which is dependent in large measure on tourists.[246] This important value is recognized by a statute that requires an electric company desiring to begin site preparation or construction of an electric generation or transmission facility to first apply to the State Public Service Board for a certificate of public good (CPG) demonstrating the Board's conclusion that the project "will promote the general good of the state."[247] Among the statutory requirements for the issuance of a CPG is that the project will not "have an undue adverse effect on [a]esthetics, historic sites, air and water purity, the natural environment and the public health and safety."[248] In determining whether a project will have an undue adverse effect on aesthetics, the Board uses the so-called *Quechee* test that has two parts: first, the factfinder determines whether the "project will have an adverse impact on scenic and natural beauty;" second, if the answer is yes, the factfinder must determine if the impact will be "undue."[249] There are three ways an adverse aesthetic impact can be "undue": if "it violates a clear, written community standard intended to preserve the aesthetics or scenic, natural beauty of the area;" or if "it offends the sensibilities of the average person;" or if the project applicant has not taken reasonable mitigating steps "to improve the harmony of the proposed project with its surroundings."[250] It is the second "undue" factor that would take

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246. Norman Williams & Tammara Van Ryn-Lincoln, *The Aesthetic Criterion in Vermont's Environmental Law*, 3 HOFSTRA PROP. L.J. 89, 91 (1990).

247. VT. STAT. ANN. tit. 30, § 248(a)(1)(B) (2008).

248. *Id.* at § 248(b)(5) (2008).

249. *In re* UPC Vermont Wind, L.L.C., 969 A.2d 144, 152 (Vt. 2009).

250. *Id.* at 152-53.

NIMBYs' objections to cell phone towers and wind farms into consideration, and the third "undue" factor could suggest a means for developers to overcome objections.

The Supreme Court of Vermont's opinion in *In re Halnon*[251] is instructive in indicating how the *Quechee* test could be used to balance fairly the interests of local residents in protecting their quality of life and the interests of the greater community in cell phone coverage and renewable energy. Halnon wanted to install a wind turbine net metering system on his sixty-two-acre property, and so he applied to the Vermont Public Service Board (PSB) for a CPG.[252] His neighbors objected on the grounds of the project's negative aesthetic impact.[253] Halnon's proposed single turbine had a 100-foot tower and 23-foot blades and would be located 450 feet from the neighbors' home, directly in their view of the Green Mountains.[254] The PSB denied Halnon's application after applying the *Quechee* test.[255] The court quoted the test and agreed that the adverse aesthetic impact was "undue" because Halnon failed to take mitigating steps to make the turbine more harmonious with its surroundings and that its location would "offend the sensibilities of the average person faced with a situation similar."[256] The court also noted that the PSB had balanced all policy considerations including the Vermont Legislature's intent to encourage renewable energy, and it upheld the PSB's denial of Halnon's permit.[257]

Some of the scenic resources that the Vermont PSB has considered particularly worthy of protection have been panoramic scenes with open grasslands, streams and farm buildings in the foreground combined with distant mountains and bodies of water, ridgelines and mountaintops, shorelines of lakes and riverbanks, open space and farms, and rural/residential/agricultural land use with only minor commercial businesses.[258] Adverse elements include anything that blocks the view of a scenic point of interest, new developments that

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251. *In re* Halnon, 811 A.2d 161 (Vt. 2002).
252. *Id.* at 162.
253. *Id.*
254. *Id.*
255. *Id.*
256. *Id.* at 163-64.
257. *In re* Halnon, 811 A.2d 161, 165 (Vt. 2002).
258. Williams & Van Ryn-Lincoln, *supra* note 246, at 151.

violate principles of scenic beauty, substantial commercial development, and noise that interferes with peace and quiet.[259]

Application of the *Quechee* test to NIMBYs' complaints about cell phone towers and wind farms would encourage cell phone and wind energy companies to put mitigation of their projects' undesirable effects on their neighbors as a major priority in preparing their plans, not as an afterthought they are forced into by threats or the fact of litigation.

VI. CONCLUSION

It is clear that plaintiffs in cell phone tower and wind farm cases are not being paid anything for their unappealing proximity, and people who are being paid by cell phone and wind farm companies are not suing. The conclusion is obvious: those burdened by large installations that benefit the larger community should be paid to bear the increased burden. Companies constructing these facilities should also take aesthetic considerations into account in their initial planning, and they should involve the local community in the earliest stages so that the costs of making location adjustments are not increased by having to redo plans.

259. *Id.* at 151-52.