

COMMUNICATIONS TOWER SITINGS: THE TELECOMMUNICATIONS ACT OF 1996 AND THE BATTLE FOR COMMUNITY CONTROL

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I. Introduction

The Telecommunications Act of 1996¹ (Act) was enacted by Congress on February 8, 1996, primarily to promote a pro-competitive, deregulatory environment for telecommunications providers that would in order to secure lower prices, better service, and faster access to new technologies for consumers.² Universal service is also a cornerstone of the congressional plan.³ The Act's chief method of accomplishing these goals is the "removal of barriers to entry"⁴ into the businesses of telecommunications services, including those provided by local, and long distance telephone companies and video, cable, and wireless companies.⁵ This plan sounds laudable and seems to be one to which most consumers would subscribe. Nevertheless, Congress recognized that difficulties might arise in its implementation if state and local governments attempted to exert their jurisdiction in ways that would erect or maintain barriers to telecommunications facilities.⁶

One such problem involves the siting of telecommunication towers and antennas. This problem existed before the new Act became law and continues to create rancor and litigation. From one end of the country to the other, communities have been fighting against telecommunications companies that want to put facilities in their neighborhoods.⁷ The new law, rather than solving the problem, exacerbates it by providing ammunition for both sides of the controversy. On one hand, the Act states that "[n]o State or local statute or regulation ... may prohibit ... the ability of any entity to provide any interstate or intrastate telecommunications service;"⁸ while, on the other hand, the Act provides that "[n]othing in this section shall affect the ability of a State to impose ... requirements necessary to ... protect the public safety and welfare, ... and safeguard the rights of consumers."⁹ These provisions make it reasonable for telecommunications companies to argue that a local zoning ordinance cannot prohibit the construction of a tower in the location and of the dimensions necessary for seamless cellular phone service. Local residents, however, can also make a compelling argument that zoning rules limiting the size and placement of telecommunications facilities protect their economic and emotional welfare.

This article first describes the problem that arises when telecommunications companies seek to erect towers in order to provide cellular phone service. It then discusses the relevant provisions of the Telecommunications Act of 1996 and the role of the Federal Communications Commission (FCC) in implementing them. Next, the article surveys the cases that have dealt with the cellular tower issue. Finally, the article concludes that

Congress should amend the Act to define acceptable methods of state and local regulation of communication facilities and to require that, in support of their applications for variances, communication service providers demonstrate that they have taken into consideration the interests of local residents in siting their facilities. Congress should also amend the Act to allow states and local governments to rely on evidence of health and environmental effects when making decisions about the location of communications facilities, even when that evidence contradicts FCC standards. In the meantime, the FCC and the courts should use their power to preempt state or local requirements only after giving due consideration to the rights and interests of affected local residents.

II. Local Community Residents Oppose Cellular Phone Towers

Cellular phone service was first offered in the United States in 1983.¹⁰ Since then, telecommunications businesses have been attempting to erect towers with antennas in or near almost every local community in order to provide service that reaches every area of the country.¹¹ A few years ago there were several thousand telecommunications towers in the nation.¹² Today, there are about 25,000.¹³ Experts estimate that by 2002, there will be 100,000 towers.¹⁴ Although cellular phones have become very popular, and people want service with good sound quality, most are unwilling to obtain it if the price is living next to, or within viewing distance of, a tower.¹⁵

There are two primary objections raised to the proximity of telecommunications towers to residential neighborhoods. First, people are concerned about the health risks associated with electromagnetic fields generated by cellular phone facilities.¹⁶ Even though there is no conclusive evidence that electromagnetic fields are cancer-causing, particularly at the low levels emitted by cellular phone transmitters,¹⁷ there is also no conclusive evidence that they are not. In fact, many studies have found a correlation between exposure to electromagnetic fields and cancer.¹⁸ Therefore, with twenty-two countries still studying the health effects of exposure to electromagnetic fields, people remain afraid.¹⁹ Second, people are concerned that proximity to a tower will lower their property values.²⁰ The manager of a real estate brokerage office in New York has called the towers "the kiss of death," claiming that a home with a tower in its backyard can sell for twenty-five percent less than a comparable home without a tower.²¹ Homeowners are also concerned for their own visual comfort, because of the poor aesthetics of the tower facilities.²²

The conflict between the goals of telecommunications companies and those of residents of local communities has created disputes that end up being resolved by courts. After the companies select sites that maximize communication distance and quality, local zoning ordinances frequently require them to obtain variances for non-conforming uses.²³ It is not unusual for the community zoning board to respond to citizens' complaints and deny the application for a variance. The telecommunications companies are prepared for this result and appeal the denial in court, where they frequently win.²⁴ If the zoning board grants the application for the variance, it is likely that community residents will not appeal the decision because they lack the financial resources; if they do appeal, they usually lose.²⁵

The playing field is not level when local citizens, attempting to protect their physical, emotional and economic health, are required to battle in court against large telecommunications corporations with vast financial resources and experience in litigating these kinds of cases. Unfortunately, the Telecommunications Act of 1996 does nothing to reduce the need for or likelihood of litigation when these corporations decide to erect cellular phone towers in residential neighborhoods.

III. The Telecommunications Act of 1996 and Its Effect on Local Regulation of Cellular Tower Facilities

The Telecommunications Act of 1996 describes itself as "[a]n Act to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies."²⁶ To accomplish those goals, the Act provides in subsection 253(a) 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."²⁷ When the House of Representatives was debating a version of the Act, some members, while agreeing that local communities should not be able to prohibit access to new communications facilities, expressed concern that the foregoing language might have the undesirable result of keeping counties, cities, and towns from enforcing their zoning and building codes.²⁸ One member declared that nothing in the Act should "preempt[] the ability of local officials to determine the placement and construction of ...new [cellular phone] towers. Land use has always been, and ... should continue to be, in the domain of the authorities in the areas directly affected."²⁹

The Act does go on to say in subsection 253(b), that states shall maintain their ability "to impose ... requirements necessary to ... protect the public safety and welfare ..." ³⁰ However, that language is followed, in section 253(d), by the warning that if the FCC³¹ "determines that a State or local government has permitted or imposed any statute, regulation, or legal requirement that violates subsection (a) ... the Commission shall preempt the enforcement of such statute, regulation, or legal requirement to the extent necessary to correct such violation or inconsistency."³²

In its instructions to the FCC regarding the regulation of mobile communications services, Congress directed the Commission to consider "safety of life and property," "efficiency," "competition," and the provision of services to the "largest number of feasible users."³³ Congress also specified that states and local governments could not keep companies from providing mobile services or regulate the rates they could charge, but states could regulate other terms and conditions of mobile communications services.³⁴ Specifically, states and local governments can regulate "the placement, construction, and modification" of service facilities with the following limitations.³⁵ State and local regulation may not "unreasonably discriminate among providers" or "prohibit or have the effect of prohibiting the provision of personal wireless services."³⁶ Furthermore, when a communications service provider requests authorization to construct facilities, the state or local government must act on the request "within a reasonable period of time" and must support any decision to deny a request with "substantial evidence contained in a written record."³⁷ Any provider issued such a denial or adversely affected by a failure to respond to such a request may, within thirty days, commence an action in any court with jurisdiction, and the court must hear and decide the case "on an expedited basis."³⁸ The Act also specifically prohibits states and local governments from regulating the placement and construction of communications facilities, like antennas and towers, on the basis of the environmental effects of electromagnetic fields if the facilities meet FCC standards for emissions.³⁹ If states or local governments ignore this prohibition, then any provider adversely affected may petition the FCC for relief.⁴⁰

Both cellular phone service providers and local community zoning boards opposing proposed tower facilities can claim some support in the Act for their positions. The Act gives the latter the right to use zoning regulations to protect the welfare of citizens threatened by towers; it imposes limitations, however, such that the advantage is clearly with communications corporations. Allowing states and local governments to regulate the placement of cellular phone towers, except when such regulation will have the effect of prohibiting the provision of cellular phone service, will give the service providers a very easy argument for having any regulation voided: if they are denied a variance to use the site of their choice, the service providers will assert that any other site would not be as cost-effective and, therefore, either they must be given permission to use their chosen site or they will not bring service to the local area. Moreover, requiring the expeditious resolution

of these disputes gives a distinct advantage to the corporations that have staffs of lawyers and engineers, previously prepared research, and litigation experience with similar cases. Local residents have none of these, and very limited financial resources with which to try to match the corporations. To require that they quickly catch up to their opponent's levels in research and expert support renders the residents position untenable in most cases.

The Act pays lip service to the importance of local zoning regulation, sufficient to encourage litigation, but without any genuine recognition of the importance of a homeowner's property values, peace of mind, and, particularly, health concerns. The Act denigrates health concerns by assuming that FCC standards for electromagnetic emissions will protect the public health. That assumption is premature, given the large amount of ongoing scientific research on the subject and the lack of clear conclusions. The Congressional Conference Report indicates that the Act preempts state and local regulation of the environmental effects of electromagnetic emissions when it has requirements beyond those of FCC rules.⁴¹ This preemption discourages states from doing their own research on the health effects of these emissions because they cannot rely on the results in formulating regulations.⁴² That result does a disservice to the public. The FCC, in promulgating its rules setting a specific absorption rate limit for electromagnetic emissions at four watts per kilogram, noted that research in this area related to human health and safety is ongoing and that changes to recommended exposure limits are possible in the future.⁴³ With that admitted uncertainty, it is unreasonable to limit what states and local governments may do to protect their residents.

Some local governments have imposed temporary moratoria on the issuance of such permits, to allow themselves time to study the impact of cellular communications antennas and towers before granting permission for their construction.⁴⁴ In early 1997, the Cellular Telecommunications Industry Association responded by filing a petition with the FCC for a declaratory ruling seeking preemption of such moratoria on the grounds that they violate the Telecommunications Act of 1996 and that the Act authorizes FCC preemption.⁴⁵ The FCC should deny the petition using the reasoning articulated by the United States District Court for the Western District of Washington in one of the few cases concerning the siting of telecommunications towers decided since the Act went into effect.⁴⁶

IV. Judicial Resolution of Telecommunications Tower Siting Disputes Since the Enactment of the Telecommunications Act

Three months after the Act was signed into law, a federal district court in Washington State decided a case challenging a six-month moratorium on issuing permits for new telecommunications facilities established by the City of Medina.⁴⁷ Medina has about 3,000 residents, and is approximately two and one-half square miles in area, zoned entirely for low-density residential use. It is a prime location for cellular phone towers, however, because of its proximity to a state highway and a bridge.⁴⁸ For several years, Medina has had cellular phone facilities belonging to two service providers, but after the Act became effective, the city expected additional applications for tower construction permits and feared becoming an "antenna farm."⁴⁹ Five days after the effective date of the Act, Medina's moratorium went into effect in order to give the city time to study the allocation of suitable sites.⁵⁰ One month later, Sprint filed a lawsuit alleging that the moratorium violates the Act because any delay in its obtaining full cellular phone coverage in the region would cause it to lose a great deal of money resulting in irreparable harm to the company.⁵¹

The court noted that Medina citizens were concerned about the health hazards and negative aesthetic effects associated with cellular phone towers, but emphasized that if the city did not have time to study the appropriate siting of facilities, there may not be adequate sites for competing providers.⁵² Thus, without the careful allocation of sites, beneficial services might be rendered unavailable.⁵³

The court provided an instructive analysis of the relevant portions of the Act. To Sprint's claim that the moratorium "'prohibit[s] or [has] the effect of prohibiting the provision of personal wireless services,'" the court responded that the moratorium was not a prohibition, but merely a short-term suspension.⁵⁴ To Sprint's contention that the moratorium kept the city from "'act[ing] on' its application 'within a reasonable period of time,'" the court averred that the language in the Act did not suggest that Congress "intended to force local government procedures onto a rigid timetable where the circumstances call for study, deliberation, and decision-making among competing applicants."⁵⁵ The court concluded that the Act's legislative history indicated that Congress did not intend to give preferential treatment to the telecommunications industry in the processing of zoning applications.⁵⁶

Finally, the court held that Medina's six-month moratorium on issuing new permits for telecommunications facilities for the purpose of information-gathering did not violate any provisions of the Telecommunications Act.⁵⁷ Thus, the court interpreted the Act's provisions in a light most favorable to the retention of some local control over the environment in which residents live, keeping the profit-making motives of telecommunications corporations from being the ultimate value in the regulation of telecommunications facilities.

In *BellSouth Mobility, Inc. v. Gwinnett County, Georgia*,⁵⁸ the United States District Court for the Northern District of Georgia interpreted section 332(c)(7)(B)(iii) of the Act, which requires that a denial of a telecommunications service provider's application to construct facilities be "supported by substantial evidence contained in a written record."⁵⁹ In this case, BellSouth applied to the Gwinnett County Board of Commissioners for a permit to erect a 197-foot monopole that would improve the quality of its cellular telephone service.⁶⁰ In support of its application, BellSouth provided the following documents: a report by the Airspace Safety Analysis Corporation showing that the monopole was not hazardous to aircraft, a certified appraiser's report concluding that monopoles did not decrease property values, a line of sight survey, prepared by Aerial Instrument Research Systems, showing the visibility of a red balloon floated to varying heights at the proposed site, and a list of BellSouth's unsuccessful efforts to find other suitable sites.⁶¹ Residents, on the other hand, submitted no documents, relying merely on a representative who attended a Board hearing and made conclusory expressions of concern regarding the monopole's safety, health, aesthetic, and economic threats.⁶² Based on this record the court held that the Board violated the "substantial evidence" provision in the Act.⁶³

The court then had to decide on the appropriate remedy.⁶⁴ Although the Act allows anyone denied a permit for telecommunications facilities to seek relief "in any court of 'competent jurisdiction'," it does not specify the remedy for violation of the Act.⁶⁵ The choices available to the district court were to remand the matter to the Board for it to make a decision supported by substantial evidence or to order the Board to issue the permit for the monopole. The court did the latter, explaining that the Act requires the court to "hear and decide such action on an expedited basis" and, therefore, a mere remand would thwart the intent of the Act to encourage the expeditious installation of new telecommunications facilities.⁶⁶

This case illustrates why, in fairness and concern for citizens' ability to exert their rights, the Act should give some deference to local governments in their disputes with telecommunications corporations regarding the location of telecommunications towers and antennas. BellSouth had knowledge, experience, legal counsel, and the financial resources to have experts prepare reports in support of its application for a permit to erect a 197-foot monopole. Local residents had none of those resources. That lack does not necessarily indicate that there was no substantial evidence to support their position, but perhaps merely that they did not know they needed it, did not know where to get it, or did not have the financial resources to pay for it. Moreover, in this kind of situation, government representatives may not be of much help, because they are also lay people with

budgetary constraints and, therefore, they are no match for business adversaries.⁶⁷

*Illinois RSA No. 3, Inc. v. County of Peoria*⁶⁸ also illustrates the poor preparation of the residents who opposed the construction of a 140-foot cellular transmission monopole. The United States District Court for the Central District of Illinois noted that the local zoning board received a petition signed by 200 people opposing the monopole, but that there was no indication of the basis for their opposition.⁶⁹ A realtor with twenty-four years experience objected to the monopole because it would cause a decrease in property values, but offered no analysis, studies or examples to support the reasonableness of the objection.⁷⁰ Lastly, the residents presented a survey that was meant to show that potential home buyers would not buy a home near a telecommunications tower.⁷¹ The court concluded that there was no evidence of the survey's statistical or scientific merit, however, because there was no information on how the survey was conducted or how the respondents were chosen.⁷²

On the other hand, Illinois RSA, the telecommunications provider, presented evidence from three certified real estate appraisers indicating that cellular transmission towers do not cause real estate prices to fall.⁷³ One presented an analysis of similar tower sitings at other locations that indicated that towers did not have an adverse effect on property values.⁷⁴ Illinois RSA had an engineer and surveyor present line of sight drawings demonstrating that the tower would not be visible from nearby residences.⁷⁵

The Peoria residents also stated their concerns about the health effects of living close to telecommunications transmission facilities, but the court held that under the Telecommunications Act, health effects could not be considered as long as emissions were within the standard set by the FCC.⁷⁶ Thus, the court concluded that there was no substantial evidence, as required by the Telecommunications Act,⁷⁷ to deny Illinois RSA's request to construct its tower.⁷⁸ It also concluded that the county of Peoria had violated the Act "in the most basic way" by not issuing a written statement containing the reasons for its denial.⁷⁹ In deciding on a remedy, the Illinois district court, citing the *Gwinnett County* case, rejected the option of remanding the case to the county zoning board for reconsideration and a written decision.⁸⁰ The court concluded that such a course "would be a waste of time and would frustrate the Telecom Act's direction to expedite these proceedings."⁸¹ Instead, the court issued an injunction directing the county to issue a permit for the tower and to remove any obstacles to its construction.⁸²

The United States District Court in New Mexico also cited *Gwinnett County* in providing mandamus relief for Western PCS II Corporation, a telecommunications company that had been denied a special exception request to mount antennas on an existing water tank by the zoning authority for Santa Fe.⁸³ In this case, the Santa Fe zoning authority failed to comply with what the district court deemed the "most basic of the Telecommunications Act's requirements," a written record supporting its denial of the company's request.⁸⁴ This led the judge to resist remanding the matter, because the court could not find the "substantial evidence" upon which the zoning authority must rely to sustain its denial of a permit.⁸⁵ The only evidence submitted by those opposed to the antennas was the expression of "generalized concerns" by several neighbors.⁸⁶ Moreover, those concerns centered on a "visual blight in the neighborhood," even though the antennas were going to be no higher than the already-existing water tank, they were going to be painted to match the color of the tank, and Western PCS was going to remove graffiti from the water tank.⁸⁷ As presented by the court, the facts of this case make the objectors' case seem very weak, but it is hard to know whether it was objectively weak or just poorly presented.

In contrast to the federal district courts in Georgia, Illinois, and New Mexico, the state court of appeals in

Wisconsin held that, in light of the Act, a remand to the local zoning authority for reconsideration of its decision to deny a permit for the construction of a 200-foot telecommunications tower was an appropriate remedy.⁸⁸ The Wisconsin court considered the Act's language requiring courts to hear these cases on an expedited basis, but did not relate that mandate to the remedies available to courts. The body of case law on the subject is still much too small to draw any general conclusions, but it will be interesting to note whether any pattern emerges of federal district courts construing the Act strictly, or of state courts deferring to local zoning authorities.⁸⁹

These cases suggest that the Act has not sufficiently clarified the role of state and local governing bodies in making decisions about the siting of cellular phone towers to discourage litigation. To the contrary, the statute creates new questions about what constitutes "the effect of prohibiting the provision of personal wireless services," what is "a reasonable period of time" for acting on requests to construct telecommunications facilities, and what kind of regulating is actually left for local governments to do regarding such construction. The latter question includes the specific issue of what health and welfare or safeguarding the rights of "consumers" can mean, particularly when state and local governments cannot consider the possible effects of human exposure to electromagnetic fields.

V. Discussion and Conclusions

Congress clearly intended for the 1996 Act to limit state and local regulation of the telecommunications industry.⁹⁰ The idea was to eliminate regulatory barriers to promote competition in the industry in order to encourage technological advancement and to give consumers choices.⁹¹ In its zeal to accomplish these goals, however, Congress neglected to sufficiently consider the interests of local residents, other than the interests they have as consumers of telecommunications services, and the advantages given to the industry vis-à-vis citizens.⁹² To rectify this oversight, Congress should amend the Telecommunications Act in four specific ways.

First, the Act should clarify the conditions of mobile communications services that state and local governments can regulate. These conditions should include the siting of facilities and the specific form that the facilities take, although the regulations should not result in the barring of service in the area. It is reasonable for people to be concerned about the effects of proximity to cellular phone towers on health, their property values, and the aesthetics of a home's landscape. It is unfair to dismiss these interests as merely symptoms of the "not-in-my-backyard" (NIMBY) syndrome and, therefore, interests to be ignored when the proliferation of cellular phone sites is at stake. In fact, there is nothing in the Telecommunications Act of 1996 that encourages telecommunications companies to take these interests into consideration in siting their facilities.

Second, Congress should require service providers to include substantial evidence that they are requesting siting permits for the least intrusive facilities available in the least intrusive locations under the circumstances. Such a requirement, in addition to addressing some of the concerns of local residents, would promote the congressional goals of advancing technology and encouraging competition. There are many ways of making communications facilities less intrusive-hiding antennas is one⁹³-but they may be more expensive than the installation of a traditional 200 or 300-foot tower.⁹⁴ For example, microcells do not have the same height and power requirements as macrocells, but a larger number of the microcells are needed to provide widespread coverage.⁹⁵ Microcells do not have to be located on high towers; they can be installed in church steeples, on rooftops, and even inside offices where they would not be noticed.⁹⁶ They can be attached to utility poles and lamp posts with cables running down to equipment located in underground shelters.⁹⁷ There are also coverage enhancer systems that can reduce the number of necessary towers by one third to one half depending on the terrain.⁹⁸

Third, the Act should allow state and local governments to rely on scientifically objective evidence of the health risks associated with electromagnetic fields when making decisions regarding the siting of communications towers and antennas. There are clear advantages to having a national policy on telecommunications. Nevertheless, because there are such wide disparities within the worldwide scientific community about the effects of electromagnetic fields (even at low levels) on human health, it should be up to local communities to decide how much risk they are willing to undertake.

Finally, the Act discourages study and planning with its "prohibit or have the effect of prohibiting the provision of personal wireless services" and "within a reasonable period of time" language.⁹⁹ This language should be clarified to allow a realistic amount of time for communities to plan for the best use of their resources. For example, companies can be required by zoning boards to share sites (known as co-location)¹⁰⁰ in an effort to reduce the number of towers, but for a local government to be able to create such requirements supported by substantial evidence, however, it would need the time to study and formulate an all-encompassing plan for the community and potential permit applicants. Current language does not, of course, prohibit planning, but it encourages service providers to commence court actions when a permitting agency does not expeditiously grant a permit application.

Legislative clarification is preferable to the ad hoc decision-making that courts will be required to do. Nevertheless, when judges are presented with these cases, they should keep in mind that the Act specifically allows local regulation of the terms and conditions of telecommunications services, and that the other provisions in the Act cannot render that provision meaningless.

Congress could not have meant for the Telecommunications Act to imply that having cellular phone service is more important to a community than having the freedom to decide what health risks are worth undertaking or than maintaining the value of neighborhood homes: the most valuable asset most homeowners have. Nevertheless, as written, the Act does not give corporations that provide cellular phone service any incentive to work cooperatively with the communities they intend to make their customers. Congress has overestimated the role that competition would play in giving local residents input in the siting of telecommunications towers. Residents and cellular phone customers, particularly in more rural areas, have not had a variety of service providers vying for their business. When there is only one provider in the area, it does not have to curry favor with potential customers by being a good neighbor.

With no evidence that Congress intends to amend the Act in the very near future, and because once towers are erected they are probably in place permanently, it will be up to courts to interpret the Act in an even-handed manner according to its language. If courts give local communities the leeway to regulate the terms and conditions of tower sitings in a thoughtful manner that will not prohibit the availability of service, the damaging effects of a poorly designed statute can be controlled.

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[1.](#) Pub. L. No. 104-104, 110 Stat. 56 (codified as enacted and amended in scattered sections of 15 U.S.C., 18 U.S.C. and 47 U.S.C.).

[2.](#) 110 Stat. at 56; 141 CONG. REC. H8269 (daily ed. Aug. 2, 1995) (statement of Rep. Linder); F.C.C. Proposed Rules: Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 61 Fed. Reg. 18,311 (1996) (to be codified at 47 C.F.R. ch. I).

[3.](#) S. REP. NO. 104-23, at § 103 (1995).

[4.](#) Telecommunications Act of 1996, 47 U.S.C. § 253.

[5.](#) See, e.g., F.C.C., THE HARD ROAD AHEAD -- AN AGENDA FOR THE FCC IN 1997 (Dec. 26, 1996).

[6.](#) See, e.g., 47 U.S.C. §§ 224(c), 253(a), 253(d) (1996).

[7.](#) See, e.g., Lisa Buie, *Cellular Towers Bedevil Board*, HERNANDO TIMES, Dec. 3, 1996, at 1 (Hernando County, Florida); Lisa Frederick, *Towers Raise Ire as Cellular Phone Structures Spring Up, Some Residents Are Voicing Concerns*, ATLANTA J. CONST., Jan. 2, 1997, at 1 (Covington, Georgia); Joe Gose, *Cities in Search of Ways to Regulate Cellular Towers - Johnson Countians Want to Limit Construction, Fearing the Impact on Property Values*, KANSAS CITY STAR, Nov. 20, 1996, at B3 (Johnson County, Kansas); Helen Bennett Harvey, *Plans for Tower Anger Residents*, NEW HAVEN REGISTER, Sept. 20, 1996 (Orange, Connecticut); Mark Larson, *And Takes on Phone Towers*, BUS. J. - SACRAMENTO, Sept. 9, 1996, at 2 (Sacramento County, California); Mike Maller, *Cell-Site Doesn't Ring Well with Neighbors*, IDAHO STATESMAN, July 17, 1996 (Cloverdale, Idaho); Jonathan Marshall, *Where's the Antenna?*, THE COLUMBIAN, Dec. 18, 1996, at E1 (San Francisco, California); *Medina Applies Another Hold on Cell Towers*, SEATTLE TIMES, Oct. 29, 1996 (Medina, Washington); James A. Merolla, *Zoning Board Gets an Earful from Tower Opponents*, PROVIDENCE J. BULL., Oct. 30, 1996, at 3C (Richmond, Rhode Island); Barbara Miller, *57 Residents Sign a Petition Opposing Cell Telephone Tower*, HARRISBURG PATRIOT, Jan. 28, 1997, at 7 (Palmyra, Pennsylvania); Doug Nurse, *Towers Loom as Upcoming Problem*, TAMPA TRIB., Jan. 5, 1997, at 1 (Lakeland, Florida); Tom O'Neill, *Here's the Church, Here's the (Fake) Steeple - It's a Cell Tower, and Much Debated*, CINCINNATI ENQUIRER, Jan. 20, 1997, at B1 (Cincinnati, Ohio); Paul Rogers, *Emerson Considers Cell Tower Ordinance Law Would Limit Height, Placement*, THE RECORD, Jan. 14, 1997, at L01 (Emerson, New Jersey); Shaun Sutner, *Towers Loom Large - Cell Service Riles Neighbors*, SUNDAY TELEGRAM, Dec. 29, 1996, at B1 (Worcester, Massachusetts); *Towers of Power*, KNOXVILLE NEWS-SENTINEL, June 16, 1996 (Knoxville, Tennessee); Pat Wiedenkiller, *In Hempstead: Bloc Aims to Trim Plan for Tower*, NEWSDAY, Sept. 15, 1996 (Malverne, New York).

[8.](#) 47 U.S.C. § 253(a) (1996).

[9.](#) 47 U.S.C. § 253(b) (1996).

[10.](#) CONTEL CELLULAR, INC., 1994 ANNUAL REPORT 6.

[11.](#) *Id.* at 6-9.

[12.](#) See, e.g., Clarke Canfield, *Analysts Say the Number of Telecommunications Towers in Maine and the Nation Could Quadruple in the Next Five Years. That Explosive Growth Challenges the Abilities of Some Towns to Balance Land Use Concerns with the Needs of the Industry, Creating a High-Tech, High-Wire Act*,

PORTLAND PRESS HERALD, Oct. 16, 1997, at 4E.

13. See *id.*

14. See *id.*

15. See *supra* note 7.

16. See Susan Lorde Martin, *Communities and Telecommunications Corporations: Rethinking the Rules for Zoning Variances*, 33 AM. BUS. L.J. 235, 241-44 (1995).

17. Antennas commonly have 100 watts of power or less, compared to the 5000 watts of an AM radio station, the 50,000 watts of an FM station or more than 300,000 watts of a television station. See Candice Millard, *Mending Fences*, CELLULAR BUS., Dec. 1, 1996 at 40; Barbara Miller, *57 Residents Sign a Petition Opposing Cell Telephone Tower*, HARRISBURG PATRIOT, Jan. 28, 1997, at 7. The strength of the magnetic fields created by these power sources varies with the distance from the source so that, for example, a hair dryer could have a magnetic field of 60 to 20,000 milliGauss when it is 1.2 inches away, but only 1 to 70 milliGauss when it is 12 inches away. See Sharon Tomecek, *What Are Electromagnetic Fields?*, REAL ESTATE TODAY, Nov./Dec. 1992, at 19.

18. See, e.g., Nancy Wertheimer & Edward Leeper, *Electrical Wiring Configurations and Childhood Cancer*, 109 AMER. J. OF EPIDEMIOLOGY 273-84 (1979); L. Tomenius, *50-Hz Electromagnetic Environment and the Incidence of Childhood Tumors in Stockholm County*, 7 BIOELECTROMAGNETICS 191-207 (1986); D.A. Savitz et al., *Magnetic Field Exposure From Electric Appliances and Childhood Cancer*, 131 AMER. J. OF EPIDEMIOLOGY 763-73 (1990); J.R. Wilkins & Ruth Koutras, *Paternal Occupation and Brain Cancer in Offspring: A Mortality-Based Case-Control Study*, 14 AMER. J. OF IND. MED. 299-318 (1988); K.T.S. Yao, *Microwave Radiation-Induced Chromosomal Aberrations in Corneal Epithelium of Chinese Hamsters*, 69 J. OF HEREDITY 409-12 (1978). See also ELLEN SUGARMAN, WARNING: THE ELECTRICITY AROUND YOU MAY BE HAZARDOUS TO YOUR HEALTH, app. A (1992) (containing extensive list of major studies).

But see William J. Broad, *Cancer Fear Is Unfounded, Physicists Say*, N.Y. TIMES, May 14, 1995, § 1, at 19 (reporting that American Physical Society, world's largest group of physicists, asserts that it can find no evidence that EMFs from power lines cause cancer).

The most recent reported study, conducted over a five-year period by the National Cancer Institute and the University of Minnesota, found no evidence that electromagnetic fields increase the risk of acquiring childhood leukemia. See Robert Langreth, *No Evidence Is Found Linking Leukemia In Children and Electromagnetic Fields*, WALL ST. J., July 3, 1997, at B6. There are, however, some scientists who still think there may be a relationship between electromagnetic fields and some kinds of cancer. *Id.*

19. See Soraya Sarhaddi Nelson, *AT&T Antennae a Tough Cell*, NEWSDAY, Jan. 22, 1997, at A23.

20. See Joe Catalano, *Similar Houses, Different Prices? It's Time to Look at the Externals*, NEWSDAY, Mar. 14, 1997, at D2; see also Martin, *supra* note 16, at note 59 and accompanying text.

21. Catalano, *supra* note 20, at D2; see also Martin, *supra* note 16, at note 59 and accompanying text.

22. See e.g. *Evans v. Shore Communications, Inc.*, 685 A.2d 454, 462 (Md. Ct. Spec. App. 1996); *Westinghouse Elec. Corp. v. Council of Township*, 686 A.2d 905, 908 (Pa. Commw. Ct. 1996).

The towers can range in height from 55 feet to 500 feet. *See, e.g.*, Tina Allen, *Ice Skating Center Gets Planning Commission OK*, LAS VEGAS REV.-J., June 25, 1997, at 3AA (55 feet); Jerry Fallstrom, *Officials to Take Up Tower Plan Some Residents Say the Telecommunications Structures Make Surrounding Property Values Plummet*, ORLANDO SENTINEL, June 24, 1997, at 1 (200 feet); Helen Bennett Harvey, *Plans for Tower Anger Residents*, NEW HAVEN REGISTER, Sept. 20, 1996, at C1 (120 feet, 180 feet, 185 feet); John J. Keller, *Bad Reception - With Cellular Towers Sprouting All Over, Towns Begin to Rebel*, WALL STREET JOURNAL, July 2, 1996, at A1 (125 feet); Jeff Ostrowski, *Rentin' the Roof Market for Cell Towers Has Nowhere to Go but Up*, S. FLA. BUS. J., Aug. 29, 1997, at 1 (500 feet); Peter Pochna, *Freeport Planners Continue Work on Tower Limits A Moratorium on New Towers Will Be Extended While Restrictions Are Being Written*, PORTLAND PRESS HERALD, Sept. 4, 1997, at 1B (300 feet). Towers are usually four-sided, lattice-style towers or monopoles, that is, solid single poles. *See, e.g.* Fallstrom at 1.

[23.](#) *See* Martin, *supra* note 16, at 245-46.

[24.](#) *See, e.g.*, Oldham County Planning & Zoning Comm'n v. Courier Communications Corp., 722 S.W.2d 904 (Ky. Ct. App. 1987); Nynex Mobile Communications Co. v. Hazlet Township Zoning Bd. of Adjustment, 648 A.2d 724 (N.J. Sup. Ct. App. Div. 1994); Kingwood Township Volunteer Fire Co. Number One v. Board of Adjustment, 640 A.2d 356 (N.J. Sup. Ct. Law Div. 1993); New Brunswick Cellular Telephone Co. v. Old Bridge Township Planning Bd., 636 A.2d 588 (N.J. Sup. Ct. Law Div. 1993); Cellular Telephone Co. v. Rosenberg, 624 N.E.2d 990 (N.Y. 1993); Cellular Telephone Co. v. Village of Tarrytown, 624 N.Y.S.2d 170 (App. Div. 1995); Cellular Telephone Co. v. Meyer, 607 N.Y.S.2d 81 (App. Div. 1994).

But see Awacs, Inc. v. Warwick Township Zoning Hearing Bd., 656 A.2d 608 (Pa. 1995) (affirming Zoning Hearing Board's denial of telecommunications company's application for variance).

[25.](#) *See, e.g.*, Payne v. Taylor, 578 N.Y.S.2d 327 (App. Div. 1991); Jaffee v. RCI Corp., 500 N.Y.S.2d 427 (App. Div. 1986); 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).

[26.](#) Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56.

[27.](#) 47 U.S.C. § 253(a) (1996).

[28.](#) 141 CONG. REC. H8269 (daily ed. Aug. 2, 1995) (statements of Reps. Moran, Clyburn, and Goss).

[29.](#) *Id.* (statement of Rep. Goss)

[30.](#) 47 U.S.C. § 253(b) (1996).

[31.](#) The FCC was created to execute and enforce federal law related to communications in order to make "communication by wire and radio" available to everyone in the nation rapidly, efficiently, and at reasonable prices. 47 U.S.C. § 151 (1934) (amended 1996).

[32.](#) 47 U.S.C. § 253(d) (1996).

[33.](#) 47 U.S.C. § 332(a) (1996).

[34.](#) 47 U.S.C. § 332(c)(3)(A) (1996).

[35.](#) 47 U.S.C. § 332(c)(7)(A) (1996).

[36.](#) 47 U.S.C. § 332(c)(7)(B)(i)(I) & (II) (1996).

[37.](#) 47 U.S.C. § 332(c)(7)(B)(ii) & (iii) (1996).

[38.](#) 47 U.S.C. § 332(c)(7)(B)(v) (1996).

[39.](#) 47 U.S.C. § 332(c)(7)(B)(iv) (1996). FCC limits on exposure to electromagnetic emissions are based on a measure of the rate of radiofrequency energy absorption, the specific absorption rate (SAR). The agency has set those limits at four watts per kilogram based on American National Standards Institute (ANSI) guidelines set in 1982. 47 C.F.R. pts. 1, 2, 15, 24, 97 (1996).

One complaint from critics is that the FCC allows providers to "self-certify" that they meet the standards. Evelyn Gilbert, *Lethal Lampposts? Cell Phone Antennas May Threaten Your Health*, VILLAGE VOICE, Aug. 26, 1997, at 24. Another complaint is that the standards have been set 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).

[40.](#) 47 U.S.C. § 332(c)(7)(B)(v) (1996). The Cellular Telecommunications Industry Association (CTIA) has petitioned the FCC for a declaratory ruling that prohibits local governments from creating moratoria on the siting of telecommunications facilities. Comments on the petition were due on September 11, 1997 and replies were due on September 26, 1997. 16 FCC DAILY DIG. 145 (July 29, 1997).

[41.](#) S. Rep. No. 104-230, at 208 (1996).

[42.](#) Some states have indicated a desire to do such research and to regulate facilities that emit electromagnetic radiation based on the results of that research. *See, e.g.*, Letter from Michele C. Farquhar, Chief, Wireless Telecommunications Bureau of the FCC, to Thomas E. Wheeler, President and CEO, Cellular Telecommunications Industry Association (Jan. 13, 1997).

[43.](#) *See* Guidelines for Evaluating the Environmental Effects of Radiofrequency Radiation, 61 Fed. Reg. 41,006, 41,007 (1996) (to be codified at 47 C.F.R. pts. 1, 2, 15, 24, 97).

[44.](#) *See, e.g.*, Farquhar, *supra* note 42; *Sprint Spectrum v. City of Medina*, 924 F. Supp. 1036 (W.D. Wash. 1996).

[45.](#) *See* Public Comment Invited; Commission Seeks Comment on Petition for Declaratory Ruling of the Cellular Telecommunications Industry Association, 62 Fed. Reg. 4047 (Jan. 28, 1997).

[46.](#) *Sprint Spectrum v. City of Medina*, 924 F. Supp. 1036 (W.D. Wash. 1996). Other cases involving disputes about the siting of telecommunications towers and referring to the Telecommunications Act of 1996 include *Paging, Inc. v. Board of Zoning Appeal*, 957 F. Supp. 805 (W.D. Va. 1997); *BellSouth Mobility, Inc. v. Gwinnett County, Georgia*, 944 F. Supp. 923 (N.D. Ga. 1996); *Crown Communications v. Zoning Hearing Bd.*, 679 A.2d 271 (Pa. Commw. Ct. 1996); *Westel-Milwaukee Co., Inc. v. Walworth County*, 556 N.W.2d 107 (Wis. Ct. App. 1996).

[47.](#) *City of Medina*, 924 F. Supp. at 1040. Enacting a temporary moratorium on the grant of permission to erect telecommunications towers is a technique that is growing in popularity with local governments. CTIA reports that nationwide there were 226 moratoria in effect at the end of June, 1997, a thirty-four percent increase from April. Karissa Booney, *Getting Over It*, WIRELESS WORLD, Oct. 30, 1997, at 1. *See, e.g.*, Ted Cohen, *Kennebunk OKs Rules for Cellular Towers - A Unanimous Vote at a Special Town Meeting Finally Gives the Town Control Over the Location and Height of the Towers*, PORTLAND PRESS HERALD, Oct. 22, 1997, at 1B (voters in Arundel, Maine considering six-month moratorium); Gary Gerew, *Board Towers Over Antenna Moratorium - A Proposal to Ban Installing Cellular Phone Towers Will Be the Topic of a Public Hearing Nov. 10*, THE POST-STANDARD (Syracuse, N.Y.), Oct. 23, 1997, at 3; Catherine Kozak, *Colington Tower Fails to Win OK*, VIRGINIAN-PILOT & LEDGER-STAR, Oct. 15, 1997, at B1 (moratorium to be

proposed in Dare County, Va. in Nov.; moratorium imposed in Currituck County, Va.).

[48.](#) *City of Medina*, 924 F. Supp. at 1037.

[49.](#) *Id.*

[50.](#) *Id.* at 1037-38.

[51.](#) *Id.*

[52.](#) *Id.* at 1038.

[53.](#) *Id.*

[54.](#) *Id.* at 1040.

[55.](#) *Id.*

[56.](#) *Id.*

[57.](#) *Id.*

[58.](#) 944 F. Supp. 923 (N.D. Ga. 1996).

[59.](#) *Id.* at 928.

[60.](#) *Id.* at 924.

[61.](#) *Id.* at 925-26.

[62.](#) *Id.* at 926.

[63.](#) *Id.* at 928.

[64.](#) *Id.* at 929.

[65.](#) *Id.*

[66.](#) *Id.*

[67.](#) For a description of a rural community's dispute with a large telecommunications corporation over the latter's construction of a 300-foot tower, *see* Martin, *supra* note 16, at 250-55 (occurring before the enactment of the Telecommunications Act). The community reached a successful compromise with the company probably because it mounted a more sophisticated campaign (that included written supporting materials from experts), *id.* at 252, than those described in the Georgia case and the Illinois, and New Mexico cases, *infra*.

[68.](#) 963 F. Supp. 732 (C.D. Ill. 1997).

[69.](#) *Id.* at 737-38.

[70.](#) *Id.* at 738.

[71.](#) *Id.* at 739.

[72.](#) *Id.* at 745.

[73.](#) *Id.*

[74.](#) *Id.* at 739.

[75.](#) *Id.*

[76.](#) *Id.* at 745 (citing 47 U.S.C. § 332(c)(7)(B)(iv)).

[77.](#) 47 U.S.C. § 332(c)(7)(B)(iii) (1996).

[78.](#) 963 F. Supp. at 743.

[79.](#) *Id.*

[80.](#) *Id.* at 747.

[81.](#) *Id.*

[82.](#) *Id.*

[83.](#) *Western PCS II Corp. v. Extraterritorial Zoning Auth. of the City and County of Santa Fe*, 957 F. Supp. 1230, 1233-34 (D.N.M. 1997), *notice of appeal filed*, (10th Cir. Mar. 25, 1997). The city of Santa Fe, New Mexico has filed a notice of its intent to appeal the district court's writ of mandamus instructing the Extraterritorial Zoning Authority to approve the special exception request to mount telecommunication antennas on an existing water tank.

[84.](#) *Id.* at 1236.

[85.](#) *Id.* at 1237

[86.](#) *Id.* at 1236.

[87.](#) *Id.* at 1234-37.

[88.](#) *Westel-Milwaukee Co. v. Walworth County*, 556 N.W.2d 107, 107-110 (Wis. Ct. App. 1996).

[89.](#) One case that might support the latter is *Crown Communications v. Zoning Hearing Bd.*, 679 A.2d 271 (Pa. Commw. Ct. 1996). In this case Crown's application to erect a 375-foot telecommunications tower was denied by the local zoning board. *Id.* at 272. Crown appealed and the lower court overturned the denial. *Id.* The appellate court reinstated the denial. *Id.* at 275. The appellate court's decision was based on a state law issue, and the court concluded that Crown had waived its challenge based on the Telecommunications Act. *Id.* at 275 n. 11. The court noted, however, that had it considered Crown's argument that the zoning board violated section 332(c)(7)(B)(i) of the Act, which disallows any state or local regulation that has "the effect of prohibiting the provision of personal wireless services," it still would have upheld the denial of Crown's application. *Id.* The court gave no explanation for its gratuitous remark.

[90.](#) *See, e.g.*, Implementation of the Local Competition Provisions in the Telecommunications Act of 1996, 61 Fed. Reg. 45,476, 45,489 (1996) (to be codified at 47 C.F.R. pts. 1, 20, 51, 90).

[91.](#) *See, e.g.*, 141 CONG. REC. S7881-02, S7886 (daily ed. June 7, 1995) (statement of Sen. Pressler); 142 CONG. REC. H1149 (daily ed. Feb. 1, 1996) (statement of Rep. Fields).

[92.](#) This is not the only area in which provisions of the Telecommunications Act of 1996 have resulted in disadvantages to the public that were probably not considered by many members of Congress. For example,

the Act's emphasis on competition is causing a substantial increase in residential phone bills, a result probably not foreseen or desired by Congress. *See* 143 CONG. REC. S2048 (daily ed. Mar. 10, 1997) (statement of Sen. Dorgan noting his dismay that consumers are losers because "the major titans in the telecommunications industry battled for advantage under this act" and the result is going to be increases in residential telephone rates); Mark Landler, *Rising Phone Bills Are Likely Result of Deregulation*, N.Y. TIMES, Mar. 30, 1997, at 1.

[93](#). *See Use Creativity, Education to Tackle Tower Issues, Insiders Say*, ADVANCED WIRELESS COMMUNICATIONS, Jan. 4, 1995.

[94](#). *See* Candice S. Millard, *Mending Fences*, CELLULAR BUS., Dec. 1, 1996 at 40 (noting that price of palm tree tower could be twice as much as that of traditional tower).

[95](#). *See* Renee Saunders, *Target: Total Coverage*, TELEPHONY, Feb. 24, 1997 at 14.

[96](#). *See* Rhonda Wickham and Shawn Steward, *Sizzling Products*, CELLULAR BUS., Jan. 1, 1995, at 22.

[97](#). *See* Millard, *supra* note 95.

[98](#). *Id.*

[99](#). 47 U.S.C. § 332(c)(7)(B)(i)(I) & (II), (ii) (1996).

[100](#). Sandra J. Grove, *Developing a Tower Strategy*, CELLULAR BUS., May 1, 1995, at 27