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March 20, 2001

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VIA COURIER

Ms. Magalie Roman Salas  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, DC 20554

Re: -- EX PARTE PRESENTATION  
-- In the Matter of Motorola, Inc.; Motorola SMR, Inc.; Motorola Communications and Electronics, Inc., Application for Consent to Assign 900 MHz SMR Licenses to FCI 900, Inc., DA 00-2352; Application Nos. 0000224876, 0000224877, and 0000224878  
-- Supplemental Affidavit of Baumann and Siwek Requested at Southern LINC Ex Parte Presentation on February 8, 2001

Dear Ms. Salas:

At the request of the staff of the Federal Communications Commission, Southern Communications Services, Inc. d/b/a Southern LINC ("Southern LINC") hereby provides an original and one copy of a Supplemental Affidavit of Michael G. Baumann and Stephen E. Siwek offered at the February 8, 2001, ex parte presentation to the following members of the Wireless Telecommunications Division staff: James D. Schlichting, Deputy Chief; David Furth, Senior Legal Advisor; Susan Singer, Economist; Lauren H. Kravetz, Attorney and Monica Desai, Attorney. Notice of this ex parte presentation was filed on February 9, 2001, with a statement that supplemental information would be subsequently filed.

Southern LINC files this Supplemental Affidavit of Baumann and Siwek in response to Commission staff questions concerning possible areas for trunked dispatch growth using 220 MHz, 450 MHz, 700 MHz, 1.9 GHz, AMTS, BI/LT spectrum or traditional dispatch service.

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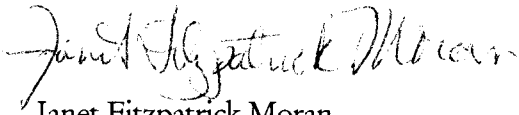
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Ms. Magalie Roman Salas  
March 20, 2001  
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Consistent with Section 1.1206 of the Commission's rules and Public Notice DA 00-2352, released October 19, 2000, a copy of this notice is being provided to ex parte presentation participants and other parties to this matter.

Please call me at the number above if you have any questions regarding the information herein.

Sincerely,

  
- Janet Fitzpatrick Moran

Enclosure

**Supplemental Affidavit of**  
**Michael G. Baumann and Stephen E. Siwek**

*Economists Incorporated, Washington DC*

**Introduction and Summary**

- 1) On February 8, 2001, we attended an *ex parte* meeting with staff members of the Wireless Telecommunications Bureau in connection with the proposed assignment of fifty-eight 900MHz Specialized Mobile Radio (“SMR”) licenses. The proposed transaction contemplates license assignments from Motorola Inc. and its affiliates (collectively Motorola) to FCI 900, Inc., a wholly owned subsidiary of Nextel Communications, Inc. (collectively Nextel). In that meeting, we presented the results of our review and evaluation of the competitive effects of the proposed transaction.
- 2) On the basis of our analysis, we concluded that Nextel possesses market power in relevant markets for trunked dispatch services. In addition, we concluded that Nextel competes in separate markets for interconnected mobile voice services. We found however, that Nextel’s competitors in interconnected mobile voice service markets provide no real alternative to Nextel’s *Direct Connect* service in trunked dispatch markets. We recommended that the Commission deny the proposed assignments to Nextel.
- 3) During the course of the *ex parte*, Commission staff members inquired as to a number of other frequency bands that potentially could be employed to compete with Nextel in trunked dispatch markets in coming years. These bands included the 800 MHz Business and I/LT spectrum, the 700 MHz spectrum, the 450 MHz spectrum and the AMTS service in the 217-220 MHz band. Commission staff members also inquired as to whether we had additional information on the actual holders of commercial licenses in the 220 MHz band. Finally, we were asked to relate any additional support for our conclusion that Nextel’s competitors in interconnected mobile voice service markets did not provide real alternatives to Nextel’s *Direct Connect* service in trunked dispatch markets. In this Supplemental Affidavit we respond to those inquiries.

## The Analysis of Competitive Entry

- 4) A merger is not likely to create or enhance market power if entry into the market is easy. Under the U.S. Department of Justice and Federal Trade Commission Merger *Guidelines*, entry is “easy” if it is timely, likely, and sufficient in its magnitude.<sup>1</sup> The Merger *Guidelines* outline a three-step process to assess whether entry would deter or counteract a competitive effect of **concern**.<sup>2</sup>
- 5) The first step assesses whether entry can achieve significant market impact within a timely period. The Agencies generally will consider timely only those entry alternatives that can be achieved within *two* years from initial planning to significant market impact.
- 6) The second step assesses whether entry would be profitable and, hence, a likely response to a merger having anti-competitive effects. An entry alternative is likely if it would be profitable at pre-merger prices and if the entrant could secure such prices. Entry is unlikely if the minimum viable scale is larger than the likely sales opportunity available to entrants.
- 7) The third step assesses whether entry would be sufficient to return market prices to their pre-merger level.
- 8) In its filings in this proceeding, Nextel merely offers predictions that circumstances will change at some time in the future. There is no indication-in materials provided by Nextel or otherwise-that there has been any competitively significant entry into trunked dispatch markets outside of the 800 MHz and 900 MHz SMR bands. This lack of entry has left dispatch customers with few alternatives.
- 9) There is no evidence that the cellular, PCS, and 220 MHz operators provide significant competition in dispatch. Neither is there any evidence that entry into trunked dispatch is likely to occur in the near future using any of the other frequency bands suggested by the Commission. Customers who need dispatch services will take scant comfort from the possibility that alternative suppliers might appear at some point in the future.

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<sup>1</sup> U.S. Department of Justice and Federal Trade Commission *Horizontal Merger Guidelines*, April 2, 1992 (hereinafter *Merger Guidelines*), § 3.0.

<sup>2</sup> See *Merger Guidelines* at § 3.0.

- 10) Future competitive entry in dispatch is contingent on a host of factors that have not been addressed in any of the Nextel filings that we have reviewed. First, **future** entry depends upon the form of Commission **restrictions** and rules **that** ultimately will govern the use of the spectrum in question. Some of this spectrum remains subject to further rulemaking or reconsideration at this writing.
- 11) Second, entrants must acquire the rights to use the requisite spectrum, perhaps through an auction or other process. There also remains the issue that some auctioned spectrum is encumbered and not usable by the entrant until the spectrum is cleared.
- 12) Third, entrants (or their suppliers) must develop and implement the technology needed to offer new services.
- 13) Fourth, the entrants must also acquire and deploy the assets required to offer service-including network equipment, customer equipment, tower sites and towers, and the like.
- 14) Fifth, the entrants must establish a reputation for high-quality, reliable service to persuade customers that they are an acceptable alternative to Nextel.
- 15) In modifying its 1995 Consent Decree with Motorola and Nextel, the Department of Justice (DOJ) stated “Although the United States cannot predict with precision when this entry will occur, its likely advent within the next couple of years justifies the proposed modifications in the Decree’s duration and **restrictions**.”<sup>3</sup> Thus, although entry had not yet occurred, in mid-1999 DOJ nonetheless believed that relatively near-term entry would soon eliminate the need for a continuation of the Decree restrictions.
- 16) Accordingly, the principal basis for modification appears to have been DOJ’s determination that there was no need to maintain the Decree’s original restrictions in light of expected near term entry into the relevant market for **trunked** dispatch services. However, as we explain in this affidavit, none of the expected entry has occurred at this writing.
- 17) In its August 1999 *Response*, DOJ also noted the Commission had lifted its ban on the provision of dispatch services by cellular and PCS

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<sup>3</sup> *Response of the United States to Public Comments on the Proposed Modified Consent Decree*, U.S. v. Motorola, Inc. and Nextel Communications, Inc., August 26, 1999 (“*Response*”), p. 8.

providers in 1995, and that in the same year, the FCC licensed a substantial amount of the 220 MHz band. These actions are now six years in the past. Significant entry from these sources clearly should have occurred by now. Yet, as we explain below, competition in dispatch markets from these sources remains insignificant at best.

- 18) Moreover, the emergence of significant trunked dispatch competition in the other frequency bands mention by the Commission staff-800 MHz Business and I/LT, 700 MHz, 450MHz, and ATMS-is unlikely to occur in the next two years.

### **800 MHz Business and Industrial / Land Transportation (BI/LT) Channels**

- 19) In its *Report and Order and Further Notice of Proposed Rulemaking* in WT Docket No. 99-87, the Commission addressed a number of proposals to amend licensing and eligibility rules for private wireless services including 800 MHz services.<sup>4</sup> With respect to these services, the Commission specifically considered aspects of an earlier request, filed by Nextel, to permit the company to acquire by assignment private Part 90 PLMR services frequencies and to utilize those frequencies for commercial CMRS operations in its 800 MHz SMR systems.<sup>5</sup> The channels at issue were held by private licensees in the “Business and Industrial / Land Transportation” (BI/LT) spectrum allocation within the 800 MHz band.

- 20) In the *ex parte* on February 8, the Wireless Telecommunications Bureau staff inquired as to whether new competitive opportunities in dispatch markets might result from the Commission’s rule changes affecting the commercial use of “BI/LT” spectrum. We address this suggestion in the following paragraphs of this affidavit.

- 21) As noted above, Nextel was the original proponent of the rule change requests that were ultimately addressed in the Commission’s *Report and Order*. Between July 1998 and October 1998, Nextel filed with the Commission fifty applications for assignment of licenses and waiver requests to facilitate the use of PLMRS channels either for relocation of upper 200 channel incumbent licensees or for “enhancement of its

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<sup>4</sup> Federal Communications Commission, *Report and Order and Further Notice of Proposed Rulemaking*, in WT Docket No. 99-87 et. al., FCC 00-403 (rel. November 20, 2000) (“*Report and Order*”), Par. 7.

<sup>5</sup> Id. Par. 108.

CMRS system.” The Commission first responded to Nextel’s request in an *Order* released July 21, 1999.’

- 22) In its initial response to Nextel’s request, the Commission concluded that “a conditional waiver designed to facilitate relocation of 800 MHz SMR upper 200 channel incumbents would serve the public interest” (emphasis added). However, with respect to Nextel’s request for a waiver to incorporate PLMRS frequencies into its CMRS system, the Commission concluded that the issue had “far reaching implications and should be addressed in a rulemaking proceeding instead of in an adjudication or waiver proceeding.”<sup>9</sup> For this reason, Nextel’s broader request for alterations in the Commission’s use restrictions on BI/LT channels in the 800 MHz band was not addressed until the more recent Commission *Report and Order*.
- 23) In the *ex parte* meeting on February 8, Commission staff briefly alluded to Southern Company’s own conversion of BI/LT channels to commercial use in the mid to late 1990s. In its July 1999 *Order* however, the Commission specifically addressed this issue.
- 24) In that proceeding, Nextel stated that “since April of 1995, the Southern Company has obtained and converted over 400 BI/LT channels to CMRS use”<sup>10</sup> and that Nextel was only asking for comparable treatment. In response to this assertion however, the Commission stated “. . .we have reviewed a sampling of the licensing actions Nextel cites and have found no specific instances of the issuance of licenses to the Southern Company in violation of the Commission’s prohibition on intercategory sharing by SMR applicants.”
- 25) The Commission went on to find that “SMR applicants are no longer able to obtain Business or I/LT channels in the 800 MHz band for CMRS operations because the Commission eliminated intercategory sharing for SMR applicants in 1995 and affirmed its decision in 1997.”<sup>12</sup> As these findings make clear, the Commission has now eliminated intercategory sharing.<sup>13</sup> For this reason, a hypothetical new

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<sup>6</sup> Federal Communications Commission, *Order*, DA-98-2206, (rel. July 21, 1999) (“*Order*”), Par. 6.

<sup>7</sup> *Id.*

<sup>8</sup> *Id.* Par. 26.

<sup>9</sup> *Id.* Par. 31.

<sup>10</sup> *Id.* Par. 9.

<sup>11</sup> *Id.* Par. 33.

<sup>12</sup> *Id.* Par. 33.

<sup>13</sup> In its November 20, 2000 *Report and Order* in WT docket No. 99-87, at fn. 307, the Commission also permitted Southern to transfer certain 800 MHz PLMR spectrum that had been obtained via intercategory sharing to another CMRS licensee for use in its CMRS system.

entrant who seeks to enter trunked dispatch markets in the United States has no ability to follow the specific entry path taken by Southern in converting these BI/LT channels to commercial use.

- 26) In its subsequent *Report and Order* in November 2000, the Commission addressed Nextel's broader request to permit modification of 800 MHz BI/LT channels to commercial use for reasons other than relocation of incumbent licensees. In that respect, the Commission decided to make a "limited change" to the use restrictions affecting 800 MHz BI/LT channels.<sup>14</sup> The Commission concluded that "subject to certain safeguards, BI/LT licensees should be allowed to modify their licenses to permit commercial use, or to assign or transfer their licenses to CMRS operators for commercial use."<sup>15</sup> (emphasis added)
- 27) In our view, the Commission recognized the "limited" nature of the change it was adopting in the BI/LT spectrum because of the far-reaching effects of the safeguards that it also adopted.
- 28) The Commission's safeguards on the modification of 800 MHz BI/LT licenses are two-fold. First, the Commission will not allow such modifications, assignments or transfers until five years after the initial grant of the license. Second, the Commission will also prohibit a licensee who modifies or transfers a license under this provision from obtaining new BI/LT spectrum in the same location for one year.<sup>16</sup> These safeguards were designed by the Commission to reduce "trafficking" in PLMR spectrum.<sup>17</sup>
- 29) It is important to recognize that by its action, the Commission did not eliminate the distinction between CMRS and PLMR spectrum with respect to initial licensees. The Commission concluded that the "existing PLMR pool of unassigned frequencies should remain available on an initial basis to PLMR eligibles only to construct new systems or expand existing systems."<sup>18</sup> (emphasis added)
- 30) For this reason, even if one were to ignore the Commission's newly adopted safeguards, only PLMR spectrum that is now licensed but is either not used or not used efficiently by licensees could in principle be made available for commercial use. However, given the current

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<sup>14</sup> *Report and Order*, Par. 7.

<sup>15</sup> *Id.* Par. 7.

<sup>16</sup> *Id.* Par. 7.

<sup>17</sup> At Par. 114, the Commission provided the following example of trafficking – PLMR eligibles acquiring new licenses from the existing pool of unassigned frequencies for the purpose of selling them to CMRS providers.

<sup>18</sup> *Id.* Par. 113.



shortage in private spectrum that was itself noted in the Commission's deliberations, the magnitude of PLMR spectrum that is simply unused by PLMR licensees is clearly not large.

- 31) While the Commission's\* safeguards were adopted specifically to prevent "trafficking" in PLMR spectrum, they also clearly reduce a private licensee's incentives to convert this spectrum at all. A private entity that chose to convert this spectrum to CMRS use would be required to accept strict limits on its ability to acquire new **BI/LT** spectrum in the same location for at least one-year. This provision adds significant risk to any such conversion because it raises the possibility that, if demand changes, the private license holder would be prevented, by regulatory fiat from expanding wireless services in its own service area.

### **Channel Conversion and Commercial Entry by Electric Utilities**

- 32) As regards the possibility that private licensees will now convert their dispatch operations to a digital trunked system and use the "freed up" spectrum capacity for commercial operations, one can consider the experience of Southern LINC itself. In fact, the Commission staff mentioned Southern LINC's own entry path during the *ex parte* of February 8. Specifically, in that meeting, the staff inquired as to the likelihood that other electric utilities could "do as Southern has done" and create an integrated commercial dispatch firm, presumably using **BI/LT** license conversions and Motorola **iDEN** technology. We address this possibility in the paragraphs below.

- 33) In 1994, the Southern Company, a registered holding company, requested the Securities and Exchange Commission to authorize it to organize and acquire Southern Communications Services, Inc. ("Southern Communications").<sup>19</sup> Southern Company sought to organize and acquire Southern Communications<sup>20</sup> in order to "facilitate the development, ownership and financing of a wireless communications network."<sup>21</sup>

- 34) The Southern Company's public utility subsidiaries were (and are) engaged primarily in the generation, transmission and distribution of

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<sup>19</sup> See Securities and Exchange Commission, *Memorandum Opinion and Order Authorizing Acquisition of Nonutility Subsidiary and Related Transactions; Reservation of Jurisdiction; and Denying Request for Hearing*, Release No. 35-26211; 70-8233, December 30, 1994, page 1. (Hereinafter "SEC MO&O").

<sup>20</sup> Southern LINC is a DBA name used by Southern Communications.

<sup>21</sup> SEC MO&O, page 5.

electric energy. The subsidiaries include Alabama Power Company, Georgia Power Company, Mississippi Power Company, Gulf Power Company and Savannah Electric and Power Company. Together, these utility subsidiaries “operate an integrated electric utility system that provides service to a contiguous 120,000 square mile area comprising most of the states of Alabama, Georgia, southeastern Mississippi, and northwestern Florida.”<sup>22</sup> (emphasis added)

- 35) At that time, these subsidiaries used mobile radio systems for normal utility operations and during times of power outages and interruptions. Unlike the integrated power system however, these mobile radio systems were neither integrated nor compatible with each other.<sup>23</sup> For this reason, utility field personnel from different subsidiaries were not able to communicate with each other by means of a common communications system.
- 36) In 1994, the Southern Company decided to modernize and replace the disparate mobile communication systems that were used by each of its operating subsidiaries. Southern chose an 800 MHz system using the Motorola Integrated Radio System (“MIRS”) for this purpose.<sup>24</sup> Because the Motorola system incorporated digital technology, it permitted more efficient use of the available spectrum than did the analog technology that the operating subsidiaries had traditionally relied upon.
- 37) The new communications system would consist of towers, transmitters, network facilities, associated vehicular and portable mobile user equipment and control stations. Southern Communications also planned to extend the new wireless system to include areas of large bulk power customers of the Southern Co., transmission line corridors, frequent travel routes of Southern personnel and state capitals.<sup>25</sup>
- 38) The Southern Company estimated that the new communications system would require approximately 310 cell sites.<sup>26</sup> In order to pay for the system, the company proposed to invest \$179 million in the Southern Communications through December 31, 1998.<sup>27</sup>
- 39) When the Southern Company initiated these investments in Southern Communications, the structure of the trunked dispatch industry was

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<sup>22</sup> Id. page 1-2.

<sup>23</sup> Id. page 2.

<sup>24</sup> Id. page 3.

<sup>25</sup> Id. page 4.

<sup>26</sup> Id. page 7.

<sup>27</sup> Id. page 5.

quite different than it is today. Specifically, in 1994, Nextel's emergence as a nationwide provider of digital wireless services had only just begun. By March 31, 1995, California and the greater metropolitan areas of New York City and Chicago were the only areas where Nextel's "Digital Mobile" networks were actually operating.<sup>28</sup> In the same time frame, Nextel had placed only 22,600 Digital Mobile subscriber units on these networks.<sup>29</sup>

- 40) Even by 1995, Nextel's announced expansion plans did not contemplate entry into the largest urban markets in Georgia, Alabama, Mississippi or coastal Florida.<sup>30</sup> For this reason, penetration by Nextel into markets in the territories of the Southern Company subsidiaries would have seemed years away. As a result, in 1994, Southern Communication's business plan would likely not have included estimates of the impact of direct competition from Nextel or from any other large competitor using digital Motorola technology.
- 41) In 2001 however, the marketplace environment has changed dramatically. No longer a start-up firm, Nextel (and its affiliate Nextel Partners) now offers digital wireless service in 98 of the top 100 metropolitan markets in the US covering approximately 194 million people.<sup>31</sup> In year-end 1996, Nextel had 1,700 cell sites nationwide. By year-end 1999, Nextel had 8,800 cell sites not including the cell sites owned by Nextel Partners.<sup>32</sup> Any present day entrant into dispatch markets who planned to use Motorola iDEN technology would now face an entrenched, national competitor who can offer the same basic "push-to-talk" dispatch technology in nearly all markets. The marketplace environment now is less attractive than it was in 1994 when Southern Company decided to invest in Southern LINC.
- 42) In 2001, a new commercial entrant who seeks to rely on converted BILT channels from electric utilities also would face another serious obstacle. Nextel, the only nationwide carrier using Motorola iDEN technology, does not offer roaming. For this reason, the Motorola

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<sup>28</sup> Nextel Communications Inc. Form S-4 Registration Statement, Securities and Exchange Commission, June 1995, page 31.

<sup>29</sup> Id. page 32.

<sup>30</sup> Id. page 32. In 1995, Nextel also planned to activate its Digital Mobile Service in other markets including Reno, Detroit, Cleveland, mid-Atlantic, New England, Dallas-Forth Worth, Houston, San Antonio, Rochester, Buffalo, Pittsburgh, Columbus, Indianapolis, Cincinnati, Milwaukee and Salt Lake City. From the perspective of Southern Communications, direct competition from Nextel in the home markets of the Southern Company would not have seemed imminent.

<sup>31</sup> The Strategis Group, *The State of the SMR Industry: Nextel and Dispatch Communications*, September 2000, page 47.

<sup>32</sup> The Strategis Group, *The State of the SMR Industry: Nextel and Dispatch Communications*, September 2000, page 47.

handsets provided by a hypothetical new entrant would become virtually useless the moment the new entrant's subscriber left the entrant's home territory. By contrast, roaming subscribers on the Nextel network could continue to make interconnect calls from anywhere in the country where Nextel's network reaches.<sup>33</sup>

- 43) Nextel's unwillingness to offer roaming to its iDEN competitors has important implications for the analysis of new competitive entry into dispatch markets. Without roaming, the size of the basic service territory served by the new entrant becomes more critical. All else equal, a mobile service that permits no out-of-territory roaming is less valuable to a subscriber who needs to travel, even occasionally, outside of that territory than a mobile service in which out-of-territory roaming is permitted.<sup>34</sup>
- 44) The extent to which the value of the restricted service declines is a function of both the subscriber's travel patterns and the size of the calling area. For subscribers whose travel patterns are always local, territory size may not be much of an issue. For other subscribers, however, the smaller the service territory with no roaming option, the less valuable the service. For these subscribers, a new entrant would need to offer a large service territory in order to compete effectively against Nextel.
- 45) In 1994, the Southern Communications network was intended to provide integrated wireless communications to the electric utility territories served by five large, contiguous power companies all under single common ownership. Because these five companies had both contiguous territories and common ownership, the full integration of the Southern Communications network across all of the companies made operational sense. Contiguous territories allowed utility work crews from Georgia Power to be readily dispatched to Alabama for emergencies and non-emergencies alike. The common ownership of these subsidiaries by the Southern Company guaranteed that cross-border work crew efficiencies could be clearly identified and fully implemented. The common ownership of these utilities also meant that

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<sup>33</sup> With regard to a roaming agreement with Nextel, it is our understanding that Nextel has argued that since Southern has requested interconnect roaming, Southern is really interested in interconnected services and not dispatch. However, this argument would seem to miss the point, as it is also our understanding that Nextel currently offers only interconnected roaming for its own service so it would be impossible to request dispatch roaming at this time. However, it is our further understanding that Motorola will shortly introduce a new technology that will allow Nextel to offer dispatch roaming.

<sup>34</sup> The fact that dispatch customers might also want to make interconnect roaming calls means only that some dispatch customers prefer to purchase both dispatch and interconnect roaming services. Such a preference does not mean that these dispatch customers view interconnect roaming as a substitute for dispatch services.

the decision to replace each non-integrated legacy system could be made at the holding company level.

- 46) Similar considerations would certainly influence the entry decision of utilities today. The most likely new utility entrant into commercial dispatch services would be a company that possesses a large, contiguous electric service territory under single common ownership. Such a firm could be expected to realize the same economies and efficiencies that Southern Communications hoped to achieve in 1995. Nevertheless, as we demonstrate below, virtually no such utility company now exists.<sup>35</sup>
- 47) In Table EI Supplement 1.1, we array one hundred and forty two investor-owned utilities in the United States by size of service territory. We also indicate whether these service territories are contiguous or non-contiguous in nature. As this Table shows, Georgia Power, the largest operating subsidiary of the Southern Company, has a utility service area of 56,501 square miles. In terms of its service area, Georgia Power is the 7<sup>th</sup> largest investor-owned electric utility in the United States. The service territory of Georgia Power is contiguous, as are the service territories of all the operating subsidiaries of the Southern Company.
- 48) In contrast to the service territories of the Southern Company subsidiaries, many large utilities serve areas that are non-contiguous in nature. For example, as shown in Table EI Supplement 1.1, PacifiCorp is the largest investor owned electric utility in the United States based on service area. However, the company's 156,405 sq. mi. territory is spread across the states of Washington, Oregon, California, Utah, Colorado and Wyoming. Huge gaps exist between these territories. In order to travel, for example, from the company's territories in Oregon and Northern California to the PacifiCorp territories in Colorado, one would have to drive across the entire state of Nevada.
- 49) Because of geographic divisions such as these, a large non-contiguous utility like PacifiCorp would have less reason to invest in an integrated dispatch communications system since it could not achieve the operational economies that would be available to an equally sized contiguous utility. Given these inherent limits, even large non-

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<sup>35</sup> Implicitly in this analysis, we assume that other electric utilities do not already operate fully integrated, digital wireless communications networks with additional capacity that might be available for other commercial users.

contiguous utilities seem unlikely new entrants into commercial mobile dispatch markets.

- 50) In Table EI Supplement 1.2, we consider the holding companies that own the operating utility subsidiaries that were shown in Table EI Supplement 1.1. In Table 1.2, we array eighty-two electric utility holding companies in the United States by size of service territory. We again indicate whether these service territories are contiguous or non-contiguous in nature. As Table EI Supplement 1.2 shows, the Southern Company subsidiaries have a combined utility service area of 120,468 sq. mi. In terms of this service area, the Southern Company is the 4th largest investor-owned electric utility holding company in the United States. As noted previously, the service territory of Southern Company is contiguous.
- 51) In our analysis, only three utility holding companies have service territories that are larger than the service territory of the Southern Company. These three holding companies are American Electric Power Co., ("AEP") Scottish Power and Xcel Energy Inc. None of these holding companies control contiguous service areas.
- 52) AEP for example, controls large utilities in Ohio, Kentucky, western Virginia and West Virginia. AEP also controls large operating subsidiaries in central and southern Texas and in Oklahoma. The states of Arkansas, Missouri, Mississippi, Tennessee, Illinois and the western sections of Kentucky separate these two clusters. In addition, a number of AEP's operating companies within each cluster are themselves non-contiguous in nature. Such companies include Ohio Power Co., Columbus Southern Power Co., and Public Service Company of Oklahoma. All of these discontinuities would reduce significantly the operational savings that could be achieved with a **fully** integrated mobile communications network.
- 53) PacifiCorp, which was discussed above, is the only operating subsidiary of Scottish Power. Thus, for the reasons discussed above, Scottish Power is also an unlikely new entrant into commercial mobile dispatch markets.
- 54) The third largest holding company, Xcel Energy, Inc., controls four operating companies that serve widely separated territories in Texas, Minnesota, Colorado and Wyoming. Northern States Power, the Xcel subsidiary in Minnesota, itself serves non-contiguous territories in Minnesota and North Dakota. The Xcel Energy companies could not capture the operational savings in their own systems that the Southern Company could achieve through its original investment in an

integrated mobile communications network. For this reason, Xcel Energy Inc. is also an unlikely new entrant into commercial mobile dispatch **markets**.<sup>36</sup>

- 55) The remaining seventy-eight utility holding companies listed on Table EI Supplement 1.2 control service territories that are smaller than the service territory controlled by the Southern Company. Seventy-six of these seventy-eight holding companies control territories that are less than sixty percent the size of the Southern Company's service territory. Assuming no change in the roaming policies of Nextel, these seventy-six companies could at best offer only a localized dispatch service that likely would not be attractive to most commercial users particularly given that these users could also choose **Nextel**.<sup>37</sup>
- 56) Only two of the seventy-eight holding companies control service territories that are even remotely comparable in size to that of the Southern Company. One of these two holding companies is Montana Power Co., which owns a single operating company. Montana Power is the second largest operating company based on service area and serves a large state, albeit an area with a low population density. We cannot rule out the possibility that Montana Power might be able to achieve operational economies that would be comparable to those envisioned by the Southern Company in 1994.
- 57) Entergy Corp. is the only other utility that might achieve economies through coordinated dispatch communications that are roughly comparable to those envisioned by the Southern Company. Entergy Corp. owns five utilities in the south central region of the United States. These utilities are Arkansas Power and Light, Gulf States Utilities, Mississippi Power and Light, Louisiana Power and Light and New Orleans Public Service.
- 58) While the Entergy utilities are generally adjacent to each other, the company's service territories are in fact non-contiguous in nature. The Entergy companies are bisected by the service territory of Central

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<sup>36</sup> Note that this assessment is based solely on the operational benefits that an electric utility could achieve on its own system. The fact that a utility may gain operational benefits from such a transformation is a necessary but not sufficient condition to justify commercial entry into dispatch markets. The entrant would also need to assess the likelihood of the new venture's commercial success in the market place.

<sup>37</sup> The Commission staff suggested that Southern and other potential utility entrants could achieve nationwide roaming by coordinating with each other. The reality is that there are literally dozens of electric utility holding companies and any nationwide coordinated effort would have to be negotiated among these dozens of firms. There are likely to be substantial difficulties in coordinating the many utilities that would have to replace their existing dispatch system with an integrated system at the same time. Moreover, each firm would have to determine that it is in their individual financial interest to offer commercial dispatch services.

Louisiana Electric Co., an unaffiliated firm. Nevertheless, the service territory of Central Louisiana Electric is relatively narrow. For this reason, we cannot rule out the possibility that Entergy Corp. might rationally be able to achieve operational economies that would be comparable to those envisioned by the Southern Company in 1994.

59) But the simple possibility that such economies may now be available to only two out of eighty-two holding companies is significant in and of itself. The hypothetical possibility that a single utility in Montana or in Arkansas and Louisiana might be able to justify commercial entry on the grounds of system efficiency says nothing about the commercial viability of that decision.

60) As we have stated previously, the new entrant would also face entrenched competition from Nextel. Moreover, the theoretical possibility of entry in either of these service territories says nothing about the rest of the country.

61) Absent roaming agreements with Nextel the foregoing analysis demonstrates that even with **BI/LT** channels available, the rest of the utility industry in the United States will simply not provide a viable competitive alternative to Nextel anytime soon.

*700 MHz*

62) In the *ex parte*, the Wireless Telecommunications Bureau staff inquired specifically about competitive opportunities in the “700 MHz” spectrum band. We believe the staff was making reference to the 746-806 MHz band which the United States Congress has mandated be allocated for future use by commercial wireless and public safety licensees.<sup>38</sup> However, as discussed below in more detail, approximately 100 television stations that broadcast on television channels 60-69 currently occupy this spectrum.<sup>39</sup>

63) In the Balanced Budget Act of 1997, Congress directed the Commission to reallocate spectrum in the 700 MHz band to commercial and public safety uses from its previous exclusive use for television broadcasting service on channels 60-69. A total of 36 MHz was allocated for commercial uses. In the *700 MHz First Report and*

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<sup>38</sup> Federal Communications Commission, *FCC Adopts Measures to Facilitate Voluntary Clearing of 700 MHz Band and Accelerate DTV Transition*, January 23, 2001.

<sup>39</sup> *Id.*



*Order*, the Commission adopted service rules for 30 MHz of the 36 MHz reallocated for commercial use,<sup>40</sup> and established two paired Guard Bands, one of 4 MHz and one of 2 MHz,<sup>41</sup> located adjacent to spectrum allocated for public safety use.<sup>42</sup> In the *700 MHz Second Report and Order*, the Commission adopted licensing, technical, and operational rules for the six megahertz of Guard Band spectrum.<sup>43</sup>

- 64) For the Guard Bands, the Commission allowed bids by a new type of licensee known as a “Guard Band Manager”. The Guard Band Manager is a new class of commercial licensee engaged solely in the business of leasing spectrum to third parties on a for-profit basis. The Guard Band Manager may subdivide its spectrum in any manner it chooses and make it available to system operators, or directly to end users for fixed or mobile communications. However, the Commission currently does not permit the deployment of cellular system architecture in this band for concerns of interference.
- 65) The prospects for new entry through use of the 700 MHz band are limited by the prior allocation of most of that spectrum. As the auction fact sheet notes, “The 700 MHz spectrum is presently encumbered by approximately 100 existing television stations, and it may remain so, to some extent, until 12/31/2006 or later. No part of the country is totally unencumbered in this band, and in some metropolitan areas, very little of this band is presently available.”<sup>44</sup>
- 66) Indeed, the Commission itself noted that “In light of the present level of encumbrance and the extended transition period provided for incumbent television broadcasters to move out of the band, it would not make sense to count this spectrum against the current [CMRS spectrum] cap.”<sup>45</sup> Moreover, in light of use of this spectrum by broadcasters until December 31, 2006 or later, a licensee need not provide “substantial service” to its service area until January 1, 2015.

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<sup>40</sup> The 30 megahertz of spectrum consists of the 747-762 MHz and 777-792 MHz bands.

<sup>41</sup> The 2 megahertz Guard Band includes 746-747 MHz and 776-777 MHz and the 4 megahertz Guard Band includes 762-764 MHz and 792-794 MHz.

<sup>42</sup> See Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules, WT Docket No. 99-168, *First Report and Order*, FCC 00-5 (rel. Jan. 7, 2000) (“700 MHz *First Report and Order*”).

<sup>43</sup> See Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules, WT Docket No. 99-168, *Second Report and Order*, FCC 00-90 (rel. March 9, 2000) (“700 MHz *Second Report and Order*”).

<sup>44</sup> 700 MHz Guard Band Auction 33 Fact Sheet: Incumbents.

<sup>45</sup> 700 MHz *First Report and Order*, Par. 52.

67) While the Commission has recently taken some action that it hopes will facilitate voluntary clearing of the 700 MHz band, it is too soon to know how effective this will be in clearing spectrum.<sup>46, 47</sup>

68) The bulk of the 700 MHz spectrum, 30 MHz consisting of 746-764 MHz and 776-794 MHz, is scheduled to be auctioned September 12, 2001.<sup>48</sup> The first 700 MHz Guard Band spectrum auction closed September 21, 2000 and an auction of remaining Guard Band spectrum closed February 21, 2001.

69) In the First Guard Band auction, 104 Major Economic Area (MEA) licenses were offered. There was one 4 MHz license (consisting of paired 2 MHz blocks) and one 2 MHz license (consisting of paired 1 MHz blocks) in each of the 52 MEAs. Guard Band Managers and their affiliates were limited to holding only one of the two licenses available in an MEA and a Guard Band Manager can lease no more than 49.9% of its spectrum in an MEA to its affiliates.

70) In the First Guard Band auction, 9 bidders won 96 licenses. Nextel won 37 licenses, the most of any bidder. All of Nextel's licenses were for 4 MHz, and Nextel won licenses in each of the nine MEAs that cover the nine major markets at issue in this matter-New York, Los Angeles, Chicago, San Francisco, Detroit, Dallas, Philadelphia, Washington, and Atlanta-and encompassing all but two of the top 50 markets.

71) The two other significant winning bidders in the First Guard Band auction were Pegasus Guard Band and Access Spectrum. Pegasus Guard Band won 31 licenses, all of them for 2 MHz, and Access Spectrum won 19 licenses, all but one of them for 2 MHz. Six other bidders won the remaining 9 licenses awarded. Eight licenses were unsold and were re-auctioned starting February 13, 2001.

72) The Second 700 MHz Guard Band auction closed February 21, 2001 and all eight licenses were sold. Nextel again was the big winner, with three licenses-Hawaii, Oklahoma City, and Columbus-all for 4 MHz

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<sup>46</sup> See Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission's Rules, WT Docket No. 99-168, *Third Report and Order*, FCC 01-25 (rel. January 23, 2001) ("*700 MHz Third Report and Order*").

<sup>47</sup> *Telecommunications Reports Daily* (Feb. 21, 2001) reports on a plan to be announced by Bud Paxson (Paxson Communications) and three other broadcasters (Univision, Shop at Home Network, and Pappas Telecasting Corp.) in which the broadcasters leave the 700 MHz spectrum before 2006 in return for compensation and Commission action requiring full digital must carry of DTV signals by cable TV systems. Even if such a "deal" is possible, the likely delay and cost issues involved will be complicated and not likely to be resolved any time soon.

<sup>48</sup> The auction date was postponed from its initially scheduled date of March 6, 2001. See DA 01-266.



of spectrum. Pegasus Guard Band also won three licenses-2 MHz in Pittsburgh and 4 MHz in Guam and Samoa. Access Spectrum won two 4 MHz licenses-Little Rock and Omaha.

- 73) Access Spectrum is owned by Motorola, Inc., the Industrial Telecommunications Association, Inc., and Quadrangle Group LLC.<sup>49</sup> According to reports, Access plans to lease its spectrum to anybody who uses radio dispatch, messaging and related services.” Access is working with Motorola to determine the best technologies to deploy.<sup>51</sup> While Motorola recently unveiled a new radio that works at 700 MHz,<sup>52</sup> the technical means for using the Access spectrum are still in development.
- 74) Pegasus Guard Band is owned by Pegasus Communications Corp., the largest independent distributor of DirecTV. Pegasus seeks to bring broadband and advanced digital services to rural areas.<sup>53</sup> It does not seem that Pegasus will use this spectrum for trunked dispatch service.
- 75) Notwithstanding industry interest in the Guard Band Manager concept, the fact remains that the 700 MHz band including the 700 MHz Guard Bands will remain encumbered by television licensees until 2006 at the earliest. Indeed, the Commission itself has stated that “Congress has instructed the Commission to assign commercial licenses for this spectrum by auction, even though incumbent television broadcasters are permitted by statute to continue operations on these frequencies until at least December 31, 2006.”<sup>54</sup> For these reasons, the 700 MHz bands cannot possibly support significant competitive entry in dispatch markets for the next five years at a minimum.

### **450-470 MHz**

- 76) During the *ex parte* meeting on February 8, the Commission staff also inquired about the competitive significance of the 450 MHz band for

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<sup>49</sup> “Access Spectrum Successfully Bids for FCC Licenses,” *Sun Antonio Business Journal*, Sept. 28, 2000.

<sup>50</sup> “Firms Buying New Waves,” *Dallas Business Journal*, v. 24, n.12 (Nov. 10, 2000), p. 1.

<sup>51</sup> *Id.*

<sup>52</sup> “Motorola Unveils 700 MHz Radios,” *Wireless Week*, August 21, 2000, p. 18.

<sup>53</sup> “Pegasus Broadband Aims for Rural Users,” *Broadband Week*, December 2000.

<sup>54</sup> Federal Communications Commission, *FCC Adopts Measures to Facilitate Voluntary Clearing of 700 MHz Band and Accelerate DTV Transition*, January 23, 2001.

**trunked** dispatch markets. This section addresses the competitive potential of the 450-470 MHz **band**.<sup>55</sup>

77) Initially, it is important to note that the Commission recently sought comment on whether to retain the existing licensing scheme or to adopt geographic licensing and competitive bidding for the PLMR frequencies below 470 MHz. The Commission concluded that the public interest would best be served by retaining its existing licensing **scheme**.<sup>56</sup> It seems that the Commission chose to emphasize the use of the 450-470 MHz band for private wireless service rather than convert it to commercial carrier use.

78) In the *Report and Order*, the Commission noted that the Refarmed bands below 470 MHz are currently licensed on a shared rather than exclusive basis. Moreover, these channels are heavily congested in most major urban areas, so the number of incumbents, particularly in the areas where geographic overlay licenses would be most desirable, would create nearly impossible due diligence requirements and would make the spectrum, at best, only marginally useful to a geographic area licensee.<sup>57</sup>

79) The Commission also noted that the private land mobile community relied on the Commission's Refarming decisions in forming investment plans and that there simply has not been enough time since the adoption of the Refarming provisions to reap the full benefits of the revised **procedures**.<sup>58</sup>

80) At the same time, the Commission declined a request by the American Mobile Telecommunications Association (**AMTA**) that specifically dealt with the 450-470 MHz **band**.<sup>59</sup> The petition would effectively have made most of the 450-470 MHz private spectrum available to commercial systems by establishing geographic area licensing and competitive bidding rules in the 450-470 MHz **band**.<sup>60</sup>

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<sup>55</sup> We interpret the Commission staff's reference to the 450 MHz band as meaning the 450-470 MHz band. If the staff also meant to include the 470-512 MHz band we would note that while frequencies in this band are available for PLMR use, this band is allocated differently than other PLMR frequencies below 800 MHz. Rather than being available nationwide and being allocated to one of the radio service pools, these frequencies are available for PLMR use in only thirteen cities and the frequencies are in one General Access Pool. Frequencies are available to all eligibles on a first come, first served basis.

<sup>56</sup> *Report and Order*, Par. 96.

<sup>57</sup> *Report and Order*, Par. 95.

<sup>58</sup> *Report and Order*, Par. 94.

<sup>59</sup> *Petition for Rulemaking of the American Mobile Telecommunications Association, Inc., In the Matter of Relicensing of Certain Part 90 frequencies to Require Spectrally Efficient Use*, July 30, 1999.

<sup>60</sup> *Report and Order*, Par. 6.

- 81) AMTA proposed relocating all private wireless licensees authorized in the 450-470 MHz band to 2 MHz of spectrum and assigning the remaining 10 MHz of non-government spectrum through competitive bidding on geographic area licenses. The 10 MHz would be licensed by geographic area in 0.5 MHz pair blocks, creating 20 licenses per market. Five of these licenses would be set aside for private, internal systems, and the remaining fifteen would be available for either internal or commercial systems.<sup>61</sup>
- 82) In rejecting the AMTA proposal, the Commission reiterated its belief that the benefits of geographic overlay licensing of this spectrum may be limited because these channels are heavily congested in most urban areas.<sup>62</sup>
- 83) In its opposition to the AMTA proposal, the Industry Coalition noted that commercial providers offer a variety of services designed to appeal to a broad base of users, whereas private wireless communications are generally used for specific, unique communication needs.<sup>63</sup> Therefore, commercial providers cannot meet all of the communications requirements of the private wireless industry. The Industry Coalition cites the Wireless Telecommunications Bureau as acknowledging that “in many cases, PMRS [private mobile radio service] users represent a thin and unique market that CMRS [commercial mobile radio service] providers have little incentive to invest in to serve; there is usually not enough of a return to justify the capital investment to serve one or a few PMRS customers.”<sup>64</sup>
- 84) Motorola also commented that the relocation choices offered to incumbents under the AMTA proposal would not provide a legitimate option in many cases.<sup>65</sup> Motorola noted that incumbents would need to elect either to relocate to one of the shared 450 MHz channels that would continue to be available or to purchase service from the auction winner. Motorola argued that the first choice would force private users operating today in 12 MHz of spectrum to squeeze into only 2 MHz thus effectively reducing the amount of spectrum available for those users that require the specialized features of private internal systems. Motorola stated that the second option does not address those

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<sup>61</sup> *Report and Order*, Par.105.

<sup>62</sup> *Report and Order*, Par.106.

<sup>63</sup> *Joint Opposition of the Industry Coalition*, In the Matter of Relicensing of Certain Part 90 Frequencies to Require Spectrally Efficient Use, September 23, 1999, p. 3.

<sup>64</sup> *Id.*, p. 3-4.

<sup>65</sup> *Statement of Opposition by Motorola*, In the Matter of Relicensing of Certain Part 90 Frequencies to Require Spectrally Efficient Use, September 23, 1999, p. 5.

circumstances where incumbents truly have unique operational or coverage needs that cannot be met by any shared, commercial network.

85)The Industry Coalition and Motorola comments indicate a seeming limited ability, and desire, of commercial providers to provide the types of service-that private wireless operators currently utilize. This inability thereby limits the desire of private wireless operators to cede their licenses to commercial operators and switch to commercial service.

86)Given the Commission's observation that the 450-470 MHz band is heavily congested in most major urban areas, the Commission's decision to forego geographic licensing and competitive bidding for this spectrum, and the limited ability of a commercial network to supply the needs of certain existing private wireless operators, it is unlikely that competition to Nextel in trunked dispatch markets will emerge in this spectrum in the near future.

87)This is the same conclusion that DOJ reached when reviewing the proposals to vacate or modify the Nextel Consent Decree. In evaluating Nextel's request to vacate the 1995 Consent Decree, DOJ noted that Nextel's evidence supporting frequency bands below 512 MHz as a source of dispatch competition was meager.<sup>66</sup> DOJ pointed out that "[c]onspicuously absent from the Nextel submission is any information regarding the number, identity, sales revenue, number of subscribers, service characteristics, capacity, or competitive significance of competitors in this band.. .."

88)DOJ's subsequent decision to modify the consent decree was based on the belief at that time that "significant entry into dispatch markets by cellular, PCS, and 220 MHz providers is likely to occur in the relatively near term."<sup>67</sup> Noticeably absent from this rationale was the prospect of entry into the 450MHz band. Indeed, DOJ reiterated its belief "that despite initial regulatory reforms, trunked dispatch providers sufficient to serve as real alternatives for customers would be unlikely to emerge in the 450 MHz band in the near term."<sup>68</sup>

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<sup>66</sup> *Memorandum of the United States in Opposition to Nextel's Motion to Vacate the 1995 Consent Decree, U.S. v. Motorola, Inc. and Nextel Communications, Inc., February 26, 1999 ("Opposition")*, p. 17.

<sup>67</sup> *Response*, at 12.

<sup>68</sup> *Response*, at footnote 11.

## 217-220 MHz AMTS

- 89) In the *ex parte* meeting on February 8, the FCC staff also inquired as to the competitive impact of potential new mobile services in the 217-220 MHz band. Specifically, the staff questioned whether service opportunities in the bands now used for the Automated Maritime telecommunications System (AMTS) should be considered in our analysis. We address this suggestion in the following paragraphs.
- 90) The spectrum ranging from 216 MHz to the 220 MHz band now supports numerous service allocations that include both government and non-government Maritime Mobile Service (MMS), Government Radiolocation Service, government and non-government Fixed Service (FS), Aeronautical Mobile Service, Land Mobile Service and Low Power Radio Service (LPRS). In addition, the 218-219 MHz segment of this band has already been auctioned on a primary basis to the 218-219 MHz Service (formerly known as Interactive Video and Data Services (IVDS)). The 218-219 MHz segment has also been allocated on a secondary basis to Amateur Radio Service.<sup>69</sup>
- 91) Services that operate in the 217-220 MHz band also face constraints caused by the need to protect TV channel 13, which operates in the subjacent 210-216 MHz band.<sup>70</sup> The Commission has stated that protection of channel 13 was one of the factors that it considered in limiting use of this band to low power applications such as LPRS and telemetry on a secondary basis.<sup>71</sup>
- 92) Currently, the 217-218 MHz and 219-220 MHz bands are also occupied by licensees of the Automated Maritime Telecommunications System (AMTS). AMTS facilities are comprised of coast stations that provide integrated and interconnected marine voice and data communications, somewhat like a cellular phone system for tugs, barges, and other vessels on waterways. AMTS licensees must provide continuity of service to either a substantial navigational area along a coastline: or to sixty percent of one or more inland waterways provided that a single station cannot serve such waterways.<sup>72</sup>
- 93) In its November 2000, Fourth Report and Order, the Commission found that there were three AMTS providers; Regionet Wireless LLC

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<sup>69</sup> Federal Communications Commission, *Notice of Proposed Rulemaking*, ET Docket No. 00-221 et. al. (FCC 00-395), Released November 20, 2000, Par. 8.

<sup>70</sup> AMTS providers must also consider possible interference problems from television channel 10.

<sup>71</sup> *Id.* Par. 11.

<sup>72</sup> Federal Communications Commission, *Fourth Report and Order and Third Further Notice of Proposed Rulemaking*, PR Docket No. 92-257 et. al. (FCC 00-370), November 16, 2000, Par. 10.



(Regionet), Paging Systems, Inc. (PSI) and Waterway Communications System LLC (Watercom).<sup>73</sup> RegionNet and PSI were licensed to serve much of the Atlantic, Pacific, Hawaii (PSI only), Great Lakes, and Puerto Rico (PSI only) coastlines.<sup>74</sup> Watercom was licensed to serve the Mississippi River system and the Gulf of Mexico.

- 94) Two of these providers, however, Regionet and Watercom, are both owned by Mobex Communications Inc. of San Ramon, California.<sup>75</sup>
- 95) There are two frequency groups of twenty channel pairs each in the 217-220 MHz band that are now available to AMTS stations to use for voice, facsimile and radioteletypewriter service. While AMTS was originally allocated four, twenty pair groups, (eighty channel pairs), the 216-217 MHz band was found to interfere with television reception and in 1996, the Commission designated this band for low power communications.<sup>76</sup> In addition, as noted above, the 218-219 MHz band has been reallocated to the 218-219 MHz Service formerly known as IVDS.
- 96) In recent years, the Commission has amended its rules to permit increasing flexibility in the use of the AMTS spectrum. For example, in 1994, the Commission decided to permit AMTS public coast stations to provide service to units on land, so long as water-based transmissions received priority.<sup>77</sup>
- 97) More recently, the Commission has “supported the use of AMTS licenses to provide fixed or hybrid CMRS service on a co-primary basis with mobile services.”<sup>78</sup> In its ongoing Maritime Communications proceeding, the Commission is currently reviewing comments on the benefit of converting the current AMTS site-based licensing system to geographic licensing with licenses awarded by auction.<sup>79</sup>
- 98) It is also worthy of note that in its recent Notice of Proposed Rulemaking in another proceeding, the Commission sought comments on various proposals to transfer spectrum in the 216-220 MHz band

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<sup>73</sup> Id. Par. 10.

<sup>74</sup> Id. Par. 10.

<sup>75</sup> Business Wire, *Mobex Communications Seeks Manufacturer and Technology Partner for Build-out of Nationwide Network*, July 24, 2000.

<sup>76</sup> Federal Communications Commission, *Fourth Report and Order and Third Further Notice of Proposed Rulemaking*, PR Docket No. 92-257 et. al. (FCC 00-370), November 16, 2000, Par. 10 and fn 36.

<sup>77</sup> Federal Communications Commission, *Second Report and Order*, GN Docket No. 93-252, 9 FCC Rcd. 1411 (1994).

<sup>78</sup> Comments of the American Mobile Telecommunications Association, Inc., FCC PR Docket No. 92-257, February 6, 2001 page 2.

<sup>79</sup> Id.

from Government to non-Government use pursuant to the provisions of the Omnibus Budget Reconciliation Act of 1993 (OBRA-93).

- 99) However, as noted in the Commission's 1999 *Spectrum Policy Statement*- and reiterated in its recent Notice, "the 216-220 MHz spectrum is already used extensively for non-Government services, which will limit the opportunities for new licensing in the band even after Government services vacate this spectrum."@ (emphasis added) For this reason, potential new spectrum transfers from government to the private sector will likely have little or no effect on the AMTS service in coming years.
- 100) Existing AMTS licensees now operate on a primary basis in this frequency band. The Commission has stated that such licensees "would be protected against interference from new operations by applying a first-in-time principle, which states that, among services of equal allocation status, the first licensed is generally entitled to protection from the later **licensed.**"<sup>81</sup> As a result, entry by new commercial users of the AMTS spectrum is not particularly likely. Accordingly, in the near term, any potential competition to Nextel in dispatch markets would have to emerge from existing AMTS license holders such as **Mobex/Regionet.**
- 101) As noted in our original affidavit and confirmed by **Mobex/Regionet** in its filed Comments, Mobex has concurrently decided to assign its SMR spectrum in the 800 and 900 MHz bands to Nextel. In January 2000, Mobex sought consent from the FCC to assign to Nextel 1284 SMR licenses that it holds in the 800 and 900 MHz bands." For this reason, any claim that **Mobex/Regionet** might use AMTS to compete more effectively with Nextel in the future must be reconciled with the company's current plans to reduce its involvement in traditional dispatch spectrum bands in the United States.
- 102) **Mobex/ Regionet** itself has admitted that current AMTS systems are not "state of the art, maximally spectrum efficient **technology.**"<sup>83</sup> In its February 2001, Comments to the Commission, **Mobex/Regionet** explained that "Currently **AMTS** operators use three different technical systems." One of the three systems "has been surpassed in spectrum efficiency by systems used in other services," while the

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<sup>80</sup> Federal Communications Commission, *Notice of Proposed Rulemaking*, ET Docket No. 00-221 et. al. (FCC 00-395) Released November 20, 2000, Par. 11.

<sup>81</sup> Federal Communications Commission, *Notice of Proposed Rulemaking*, ET Docket No. 00-221 et. al. (FCC 00-395) Released November 20, 2000, Par. 15.

<sup>82</sup> Public Notice DA 01-08, Released January 10, 2001.

<sup>83</sup> Comments of Mobex Communications, FCC PR Docket No. 92-257, February 6, 2001, page 14.

second system “is an adaptation of a mature land mobile technology.”<sup>84</sup> The third AMTS system, while closer to the state of the art is itself “an adaptation of an existing technology.” These admittedly outdated technologies clearly limit the degree to which AMTS carriers now provide real competitive alternatives in any wireless market anywhere in the country.

- 103) The technical limitations of the **Mobex/Regionet** systems are apparent even from a cursory review of the Regionet web site. Conversation duration for voice calls on the Regionet systems is timed and strictly limited to a two minute maximum. Moreover, during times of peak usage, these limits can fall to as low as 90 seconds.<sup>85</sup>
- 104) Recognizing the technical limits that exist on its current system mix, **Mobex/Regionet** itself has expressed a desire to move in the direction of state of the art, maximally efficient technology. However, the company has stated that it “cannot obtain such technology without adequate spectrum.” For this reason, **Mobex/Regionet** also wants more spectrum available for the AMTS service.
- 105) **Mobex/Regionet** has asserted that “only if a manufacturer of radio equipment sees a large enough market to justify the costs of developing new equipment will new equipment be developed.” The company has also argued that only with more spectrum in hand, will it be in position to “interest a manufacturer in developing a state of the art product for AMTS use”<sup>86</sup> (emphasis added).
- 106) Because of the limitations that plague its current systems, **Mobex/Regionet** does not now offer viable competitive alternatives for mobile dispatch users or even for users of interconnected mobile voice services in the United States.
- 107) More importantly, there is little reason to expect that, without sufficient spectrum and without interest in AMTS product development from any manufacturer, **Mobex/Regionet** can emerge as a serious competitor to Nextel any time soon. By **Mobex/Regionet**’s own admission, the provision of more efficient (and more competitive) AMTS services requires the FCC to make additional spectrum available to AMTS. This spectrum must be sufficient in scale to permit a manufacturer to justify its own entry into the production of efficient AMTS band radios. However, even if the FCC were suddenly to make

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<sup>84</sup> Comments of Mobex Communications Inc., FCC PR Docket No. 92-257, February 6, 2001, page 14.

<sup>85</sup> Telephone call to Regionet, Technical Support Division.

<sup>86</sup> Id. page 14.

such spectrum available to AMTS, a manufacturer would need to decide to produce state of the art equipment for the newly enlarged AMTS service and to bring such production on line. Even in that event, this newly developed equipment could not hope to be deployed in serious quantities in the marketplace during the two-year window that is used in the DOJ Merger Guidelines.

108) For all of these reasons, prospects of future changes in the AMTS service do not alter any of our conclusions with respect to dispatch markets today.

### *220 MHz*

109) The Commission staff inquired as to whether we had additional information on the actual holders of commercial licenses in the 220 MHz band. This section briefly discusses one holder of 220 MHz spectrum that was not previously discussed.

110) The second largest bidder for 220 MHz spectrum, based on net bids, was Sophia Licensee Inc., a subsidiary of Sophia Communications.<sup>87</sup> Sophia provides a wireless data network to support fixed-point monitoring and control applications, and mobile user applications. The company has developed a proprietary “two-way” wireless technology for data transmission. Sophia currently has network coverage in the Chicago area.<sup>88</sup>

111) Given Sophia’s focus on developing a data network, Sophia is unlikely to provide any competition in the trunked dispatch market.

## **Cellular/PCS Providers**

### *Mobile-to-Mobile Pricing Plans*

112) There is no doubt that cellular and PCS carriers have thus far shown little interest in providing dispatch services even though the FCC removed all restrictions on the provision of common carrier dispatch service by these carriers in March of 1995.

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<sup>87</sup> The top bidder for 220 MHz spectrum was Intek license Acquisition Corp. The status of Intek was discussed in our previous *ex parte* filing.

<sup>88</sup> [www.sophiacomm.com](http://www.sophiacomm.com).

- 113) Nevertheless, in its August 1999 *Response*, DOJ asserted that cellular and PCS companies have responded to Nextel's success by offering new pricing plans designed to appeal to customers who might otherwise switch to Nextel's *Direct Connect* digital dispatch service. However, as we explain below, the cellular and PCS calling services offered by these carriers are quite distinguishable from *Direct Connect*.
- 114) Because of the fundamental differences between *Direct Connect* and the mobile-to-mobile pricing plans offered by the cellular/PCS carriers, these plans were seen, even by DOJ, as a short-term strategy at best. DOJ concluded that these plans "will not address important differences in functionality between cellular and PCS services and Nextel's dispatch service".<sup>89</sup>
- 115) To find out more about the mobile-to-mobile pricing plans that are currently offered by cellular and PCS providers, representatives from Economists Incorporated contacted Verizon Wireless, Sprint PCS, VoiceStream Wireless, Cingular Wireless and AT&T Wireless directly. As noted above, these carriers offer lower monthly fees or more free airtime for mobile-to-mobile calls. However, these mobile-to-mobile calls cannot be made to more than two or three mobile subscribers at the same time. Recall that with Nextel's *Direct Connect*, subscribers can talk from one to 100 other people in a pre-specified group by pressing a single button.<sup>90</sup>
- 116) For mobile conference calling, the maximum group size permitted by the cellular/PCS carriers was 4 for Verizon Wireless and 3 for Sprint PCS, VoiceStream, AT&T Wireless and Cingular. When asked whether there was a way to have twenty mobile subscribers on the line at once, two of these carriers, Verizon Wireless and VoiceStream Wireless, replied that "only Nextel has that." Contrary to Nextel's claims, unlimited calling plans by cellular/PCS providers do not represent "direct competition with the dispatch services offered by SMR operators."<sup>91</sup>
- 117) In this context, it is important to recognize that a "work group" in plans such as AT&T's Group Calling plan does not mean that each Workgroup member can speak in conference to all other work group members. Workgroups reflect pricing options only. Even in a Group

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<sup>89</sup> *Response*, p. 10.

<sup>90</sup> Cahners Wireless Week, *Nextel Moves Beyond its Niche, Targets White Collar Market*.

<sup>91</sup> See Nextel Public Interest Statement, FCC Form 603, page 7 of 24.

Calling Workgroup of 200 members, only three subscribers at most can speak to each other at the same time.

### *Changes in Cellular! PCS Functionality*

- 118) In our original affidavit, we cited various instances where security analysts and industry specialists had noted the “unique” dispatch functionality of Nextel’s *Direct Connect* service. Nevertheless, we are also aware that other parties have claimed that changes in cellular/PCS functionality will someday emerge that will permit direct functional competition in dispatch markets between *Direct Connect* and cellular/PCS providers. Based on our research to date however, we are aware of no fully deployed cellular or PCS technology that now permits dispatch functionality in cellular/PCS systems.
- 119) In its August 1999 *Response*, DOJ concluded that functional differences between *Direct Connect* and cellular/PCS would be “narrowed” as cellular and PCS firms deployed new technology that could be used to offer dispatch functionality. In that context, DOJ cited press releases in early 1999 that described the plans of Swedish telephone manufacturer Ericsson to promote a telephone/dispatch handset that allegedly could work over cellular systems.<sup>92</sup> Interestingly, DOJ’s citations to Ericsson in August 1999 were at odds with citations that appeared in DOJ’s earlier Memorandum in opposition to Nextel’s motion to vacate the 1995 Consent Decree. In its February 1999 Memorandum, the Department cited statements by Jeffrey Hines, an analyst at BT Alex Brown who concluded that the Ericsson phone “falls short of being any serious threat to Nextel.”<sup>93</sup>
- 120) In the *Geotek Order*<sup>94</sup> and the *Fifth Report*<sup>95</sup> the Commission also referred to competition from the Ericsson TDMA Pro product and to the then recently announced *Cellular One to One* service. The Commission reported that “Ericsson’s TDMA Pro product overlays dispatch capabilities onto existing mobile voice networks by programming the network’s servers and handsets. . . .In September 1999, under the Cellular One brand name, SBC launched *Cellular One to One*, a service employing the Ericsson technology enabling

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<sup>92</sup> *Response*, p. 10.

<sup>93</sup> U.S. Department of Justice, *Memorandum of the United States in Opposition to Nextel’s Motion to Vacate the 1995 Consent Decree*, No. CIV. A. 94-2331 (TFH), February 26, 1999, page 19.

<sup>94</sup> FCC Memorandum Opinion and Order, DA 00-89, *In re: Application of Various Subsidiaries and Affiliates of Geotek Communications, Inc. et.al.* Released January 14, 2000, (*Geotek Order*).

<sup>95</sup> FCC *Fifth Report* In the Matter of Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services. Released August 18, 2000, (*Fifth Report*).

subscribers to make conference calls with up to 30 different parties by dialing pre-programmed group **numbers**.<sup>96</sup>

121) At this writing, we have found no evidence to suggest that the Ericsson **TDMA** Pro handset is currently being deployed by any cellular or PCS providers anywhere in the United States. In particular, the phone is not available from **SBC**.<sup>97</sup> We also contacted Ericsson's headquarters in Sweden asking if the phone was available in the United States. According to Ericsson, the phone is not deployed in the United States since the terminal does not work on the 1900 MHz network."

122) Moreover, we learned that Cingular (formerly Cellular One) no longer offers the *Cellular One to One* service that allows conference calls with up to 30 different parties. Cingular has mobile to mobile features and conference call capability for three people, but nothing to the extent that was indicated in the September 1999 **announcement**.<sup>99</sup>

123) For these reasons, we conclude that the hoped for dispatch competition based on improvements in cellular and PCS functionality, at least through the deployment of Ericsson equipment, has not and will not come to pass.

124) The Qualcomm "Q-chat" handset represents another technology that has been claimed to offer a potential way in which dispatch functionality could some day be added to cellular/PCS **systems**.<sup>100</sup> According to Nextel's comments, Q-chat is a button on the side of Qualcomm phones that will connect one user to all of the other users in a particular calling **group**.<sup>101</sup> Nextel claims that this feature "will likely further intensify competition among Sprint PCS, Nextel, Southern and other CMRS providers."<sup>102</sup>

125) Q-chat is not available at present. Qualcomm is currently working on the software. Q-chat is targeted to become available in 2002-2004, but this is totally dependent upon Verizon (their carrier) updating

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<sup>96</sup> *Geotek Order at Par. 37. See also Fifth Report at p. 71.*

<sup>97</sup> Conversations with customer service representatives at AT&T Wireless (800) 888-7600, Bell South Mobility (800) 351-2400, and Cingular Wireless (formerly Cellular One) (800) 331-0500.

<sup>98</sup> Email correspondence from Marie Axelsson at Ericsson, [Marie.Axelsson@era.ericsson.se](mailto:Marie.Axelsson@era.ericsson.se).

<sup>99</sup> Conversation with customer service representative at Cingular, (800) 331-0500.

<sup>100</sup> See for example, Federal Communications Commission, *Reply Comments of Nextel Communications, Inc.*, WT Docket No. 000-193, February 5, 2001, page 20.

<sup>101</sup> *Id.*

<sup>102</sup> *Id.*

their network with 3G technology.<sup>103</sup> Without the network upgrade by Verizon the push-to-talk feature will not work.

126) Q-chat has been suggested as a software upgrade to Qualcomm's QSec-800 and QSec-800C phones, both of which are secure wireless handsets. The QSec-800 is an encrypted secure phone specifically developed for the federal government, military organizations, state and local law enforcement, public safety agencies, public officials and corporate decision-makers. The QSec-800C is a civilian version that provides secure communications for any business requiring a device of a unique, secure nature."

127) The QSec-800 is being developed with the National Security Agency (NSA). According to NSA, development work on the Q-chat feature has been deferred. It is not a high priority at the moment due to cost considerations.<sup>105</sup>

128) NSA is trying to finish development of the phones and anticipate that by May/June 2001 they will have 350 delivered to them by Qualcomm. NSA hopes that following the testing phase they will reach an agreement with Qualcomm for production. The estimated cost for a QSec-800 phone is \$2,000. The price for the civilian phone is unknown, but if there is no production of the QSec-800 there will be no civilian version.<sup>106</sup>

## Conclusions

129) As set forth in this Supplemental Affidavit, we have attempted to respond to a series of inquiries made by the Commission staff during an *ex parte* meeting on February 8, 2001. Specifically, the staff solicited our comments regarding the 800 MHz Business and I/LT spectrum, the 700 MHz spectrum, the 450 MHz spectrum and the ATMS service in the 217-220 MHz band. Commission staff representatives also inquired as to whether we had additional information on the actual holders of commercial licenses in the 220 MHz band. Finally, we were asked to relate any additional support for our conclusion that Nextel's competitors in interconnected mobile voice service markets did not provide real alternatives to Nextel's *Direct Connect* service in **trunked** dispatch markets.

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<sup>103</sup> Conversation with the Qualcomm Government Systems department (858-658-4249).

<sup>104</sup> [www.qualcomm.com/govsys](http://www.qualcomm.com/govsys).

<sup>105</sup> Conversation with Ron Krebs at NSA (410-854-7005).

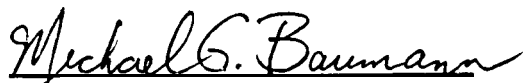
<sup>106</sup> *Id.*

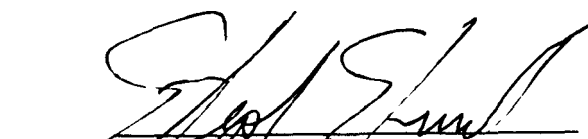


130) In responding to the staffs inquiries, we gathered, reviewed, and evaluated additional information. Based on this information, it appears that particular frequency bands may one day support limited new entry into **trunked** dispatch markets in the United States. However, the information also dramatically underscores our original conclusion that no major competitors have or soon will emerge to challenge Nextel in these frequency bands. For this reason, we see no cause to revise either the conclusions or the calculations of market concentration that we presented to the Commission on February 8.

131) Accordingly, we continue to believe that Nextel possesses market power in relevant markets for **trunked** dispatch services. We also continue to believe that Nextel competes in separate markets for interconnected mobile voice services but that Nextel's competitors in the markets for interconnected voice services provide no real alternative to *Direct Connect* in **trunked** dispatch markets. For these reasons, we continue to recommend that the Commission deny Nextel's proposed license assignments in this proceeding.

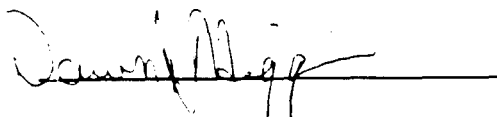
The foregoing statements are true and correct to the best of our knowledge, information and belief.

  
Michael G. Baumann

  
Stephen E. Siwek

Subscribed and sworn to before me, a Notary Public, this 11<sup>th</sup> day of March, 2001.

City Washington, DC

  
Notary Public

**DAWN J. HIGGINS**  
**A NOTARY PUBLIC OF DISTRICT OF COLUMBIA**  
**MY COMMISSION EXPIRES JUNE 30, 2004**



## Operating Service Territories of Electric Utilities in the US

<b>Rank</b>	<b>Operating Company</b>	<b>Area (Sq. Miles)</b>	<b>Contiguous</b>
1	PacifiCorp	156,405	No
2	Montana Power	106,634	Yes
3	Pacific Gas & Electric	69,107	Yes
4	Southwestern Public Service	68,139	Yes
5	Southern California Edison	58,126	Yes
6	Northern States Power	56,561	No
<b>7</b>	<b>Georgia Power</b>	<b>56,501</b>	<b>Yes</b>
8	Otter Tail Power	52,667	Yes
9	Central Power & Light	52,072	Yes
10	West Texas Utilities	51,446	No
11	Texas Utilities Electric	46,102	No
12	Montana Dakota Utilities	45,854	Yes
<b>13</b>	<b>Alabama Power</b>	<b>42,499</b>	<b>Yes</b>
14	Sierra Pacific Power	42,375	No
15	Arizona Public Service	41,791	No
16	Idaho Power	33,902	No
17	Oklahoma Gas & Electric	32,349	Yes
18	CENTEL Electric	32,056	No
19	Arkansas Power & Light	32,037	No
20	Carolina Power & Light	31,523	No
21	Consumers Power	28,125	Yes
22	Duke Power	27,644	Yes
23	PSC of Oklahoma	27,356	No
24	Gulf States Utilities	27,013	No
25	Virginia Electric & Power	26,535	Yes
26	PSC of Colorado	25,540	Yes
27	Kansas Power & Light	25,454	Yes
28	Interstate Power	25,337	Yes
29	Florida Power	25,098	Yes
30	PSC of Indiana	24,542	Yes
31	Central Illinois Public Service	24,425	No
32	Niagara Mohawk Power	24,304	No
33	Minnesota Power & Light	23,992	Yes
34	Mississippi Power & Light	22,300	Yes
35	Union Electric	22,296	No
36	Florida Power & Light	22,189	Yes
37	Appalachian Power	22,174	Yes
38	Kentucky Utilities	19,418	Yes
39	Washington Water Power	19,207	Yes
40	Louisiana Power & Light	18,246	No
41	Southwestern Electric Power	18,171	Yes
42	Iowa Electric Light & Power	18,081	Yes
43	New York State Electric & Gas	17,055	No
44	Northwestern Public Service	16,609	Yes
45	Central Louisiana Electric	16,312	No

## Operating Service Territories of Electric Utilities in the US

<b>Rank</b>	<b>Operating Company</b>	<b>Area (Sq. Miles)</b>	<b>Contiguous</b>
46	Illinois Power	16,229	No
47	Pennsylvania Electric	15,814	No
48	South Carolina Electric & Gas	15,519	Yes
49	Puget Sound Power & Light	15,499	No
50	Wisconsin Power & Light	14,331	No
51	Iowa Power & Light	13,257	No
52	Missouri Public Service	13,175	No
53	West Penn Power	12,386	No
54	Ohio Power	11,885	No
<b>55</b>	<b>Mississippi Power</b>	<b>11,806</b>	<b>Yes</b>
56	Iowa Southern Utilities	<b>11,675</b>	<b>Yes</b>
57	Dayton Power & Light	11,648	Yes
58	Commonwealth Edison	11,568	Yes
59	Monongahela Power	11,123	No
60	Texas-New Mexico Power	10,679	No
61	Wisconsin Electric Power	10,565	No
62	Kansas Gas & Electric	10,410	No
63	Central Maine Power	9,896	Yes
64	Black Hills Power & Light	8,705	Yes
<b>65</b>	<b>Gulf Power</b>	<b>8,483</b>	<b>Yes</b>
66	Delmarva Power & Light	8,283	Yes
67	Wisconsin Public Service	7,993	No
68	Detroit Edison	7,930	Yes
69	Pennsylvania Power & Light	7,900	Yes
70	Potomac Edison	7,766	No
71	Louisville Gas & Electric	7,724	Yes
72	Empire District Electric	7,036	Yes
73	Northern Indiana Public Service	6,939	Yes
74	Maine Public Service	6,039	Yes
75	Ohio Edison	5,937	No
76	Kentucky Power	5,824	Yes
77	Kansas City Power & Light	5,687	No
78	Columbus Southern Power	5,420	No
79	Bangor Hydro-Electric	5,381	Yes
80	St. Joseph Light & Power	5,359	Yes
81	Upper Peninsula Power	5,115	No
82	Central Vermont Public Service	4,800	No
83	Connecticut Light & Power	4,409	Yes
84	Metropolitan Edison	3,867	No
85	Portland General Electric	3,844	Yes
86	Nevada Power	3,817	Yes
87	San Diego Gas & Electric	3,703	Yes
88	Massachusetts Electric	3,600	No
89	PSC of New Hampshire	3,532	No
90	El Paso Electric	3,522	Yes

## Operating Service Territories of Electric Utilities in the US

<b>Rank</b>	<b>Operating Company</b>	<b>Area (Sq. Miles)</b>	<b>Contiguous</b>
91	Indiana Michigan Power	<b>3,493</b>	No
92	Jersey Central Power & Light	3,194	No
93	Iowa-Illinois Gas & Electric	3,008	No
94	Toledo Edison	2,808	Yes
95	Southwestern Electric Service	2,742	No
96	Edison Sault Electric	2,734	Yes
97	Atlantic City Electric	2,585	Yes
98	Rochester Gas & Electric	2,536	No
99	Philadelphia Electric	2,346	Yes
100	Central Illinois Light	2,316	Yes
101	Houston Lighting & Power	2,191	Yes
102	Cleveland Electric Illuminating	2,076	Yes
103	Baltimore Gas & Electric	2,061	Yes
104	Tampa Electric	2,048	Yes
105	UtiliCorp United	1,928	Yes
106	PSC of New Mexico	1,870	No
107	Central Hudson Gas & Electric	1,750	Yes
108	Commonwealth Electric	1,741	Yes
109	Public Service Electric & Gas	1,737	Yes
110	Cincinnati Gas & Electric	1,612	Yes
111	Southern Indiana Gas & Electric	1,416	Yes
112	Pennsylvania Power	1,415	Yes
113	Boston Electric	1,413	Yes
114	Citizens Utilities	1,355	No
115	Green Mountain Power	1,272	No
116	Nantahala Power & Light	1,209	Yes
117	Long Island Lighting	<b>1,200</b>	Yes
<b>118</b>	<b>Savannah Electric &amp; Power</b>	<b>1,178</b>	<b>Yes</b>
119	Western Massachusetts Electric	1,168	Yes
120	Consolidated Edison	1,112	Yes
121	Potomac Electric Power	1,083	Yes
122	Orange & Rockland Utilities	1,072	Yes
123	Narragansett Electric	1,026	Yes
124	Union Electric	1,001	No
125	Superior Water, Light & Power	745	Yes
126	Cheyenne Light, Fuel & Power	699	Yes
127	Conowingo Power	600	Yes
128	Alpena Power	486	Yes
129	New Orleans Public Service	474	Yes
130	Duquesne Light	469	Yes
131	United Illuminating	465	Yes
132	Wheeling Power	456	Yes
133	Florida Public Utilities	452	Yes
134	Granite State Electric	447	No
135	Tucson Electric Power	379	Yes

### Operating Service Territories of Electric Utilities in the US

<b>Rank</b>	<b>Operating Company</b>	<b>Area (Sq. Miles)</b>	<b>Contiguous</b>
136	Madison Gas & Electric	296	Yes
137	Rockland Electric	260	Yes
138	Kingsport Power	204	No
139	Blackstone Valley Electric	136	Yes
140	Holyoke Water Power	105	Yes
141	Fitchburg Gas & Electric Light	79	Yes
142	Cambridge Electric Light	59	Yes
<b>Total</b>		<b>2,132,151</b>	

Source: Energy Information Administration EIAGIS-NG.

**Indicates Southern Company Holding.**





**Operating Service Territories of  
Electric Holding Companies in the US**

<b>Rank</b>	<b>Holding Company</b>	<b>Area (Sq. Miles)</b>	<b>Contiguous</b>
1	American Electric Power Co., Inc.	198,500	No
2	ScottishPower	156,405	No
3	Xcel Energy, Inc.	150,938	No
<b>4</b>	<b>Southern Company</b>	<b>120,468</b>	<b>Yes</b>
5	Montana Power Co.	106,634	Yes
6	Entergy Corp.	100,069	No
7	Alliant Energy Corp.	69,423	No
8	PG&E Corp.	69,107	Yes
9	Edison International	58,126	Yes
10	Otter Tail Power Co.	52,667	Yes
11	UtiliCorp United, Inc.	52,518	No
12	Txu Corp.	48,844	No
13	Ameren Corp.	47,722	No
14	Sierra Pacific Resources	46,192	No
15	MDU Resources Group, Inc.	45,854	Yes
16	Pinnacle West Capital Corp.	41,791	No
17	Western Resources, Inc.	35,863	No
18	IDACORP, Inc.	33,902	No
19	OGE Energy Corp.	32,349	Yes
20	Carolina Power & Light Co.	31,523	No
21	Allegheny Energy, Inc.	31,274	No
22	Duke Energy Corp.	28,853	Yes
23	CMS Energy Corp.	28,125	Yes
24	LG&E Energy Corp.	27,142	Yes
25	Energy East Corp.	26,951	No
26	Dominion Resources, Inc.	26,535	Yes
27	Cinergy Corp.	26,154	Yes
28	Florida Progress Corp.	25,098	Yes
29	ALLETE	24,736	Yes
30	Niagara Mohawk Holdings, Inc.	24,304	No
31	GPU, Inc.	22,875	No
32	FPL Group, Inc.	22,189	Yes
33	Avista Corp.	19,207	Yes
34	Northwestern Corp.	16,609	Yes
35	Cleco Corp.	16,312	No
36	MidAmerican Energy Holdings Co.	16,265	No
37	Dynegy, Inc.	16,229	No
38	SCANA Corp.	15,519	Yes
39	Puget Sound Energy, Inc.	15,499	No
40	Exelon Corp.	13,914	No
41	Wisconsin Energy Corp.	13,299	No
42	WPS Resources Corp.	13,107	No
43	FirstEnergy Corp.	12,236	No
44	DPL, Inc.	11,648	Yes

## Operating Service Territories of Electric Holding Companies in the US

<b>Rank</b>	<b>Holding Company</b>	<b>Area (Sq. Miles)</b>	<b>Contiguous</b>
45	Conectiv	11,468	Yes
46	TNP Enterprises, Inc.	10,679	No
47	Northeast Utilities	9,215	No
48	Black Hills Corp.	8,705	Yes
<b>49</b>	DTE Energy Co.	<b>7,930</b>	Yes
50	PPL Corp.	<b>7,900</b>	Yes
51	Empire District Electric Co.	7,036	Yes
52	NiSource, Inc.	<b>6,939</b>	Yes
53	Maine Public Service Co.	<b>6,039</b>	Yes
54	Kansas City Power & Light Co.	5,687	No
55	Bangor Hydro-Electric Co.	5,381	Yes
<b>56</b>	National Grid	<b>5,209</b>	No
57	Central Vermont Public Service Corp.	4,800	No
58	Enron Corp.	3,844	Yes
<b>59</b>	Sempra Energy	<b>3,703</b>	Yes
60	El Paso Electric Co.	3,522	Yes
61	Nstar	3,213	Yes
62	RGS Energy Group, Inc.	2,536	No
63	Consolidated Edison, Inc.	2,443	Yes
<b>64</b>	AES Corp.	<b>2,316</b>	Yes
65	Reliant Energy, Inc.	2,191	Yes
66	Constellation Energy Group, Inc.	2,061	Yes
67	TECO Energy, Inc.	2,048	Yes
68	PSC of New Mexico	1,870	No
<b>69</b>	CH Energy Group, Inc.	<b>1,750</b>	Yes
70	Public Service Enterprise Group, Inc.	1,737	Yes
71	Vectren Corp.	<b>1,416</b>	Yes
72	Citizens Communications Co.	1,355	No
73	Green Mountain Power Corp.	1,272	No
74	Long Island Power Authority	1,200	Yes
75	Potomac Electric Power Co.	1,083	Yes
76	Alpena Power Co.	486	Yes
77	DQE, Inc.	<b>469</b>	Yes
78	United Illuminating Co.	465	Yes
<b>79</b>	Florida Public Utilities Co.	<b>452</b>	Yes
80	UniSource Energy Corp.	<b>379</b>	Yes
81	Madison Gas & Electric Co.	<b>296</b>	Yes
82	Unitil Corp.	<b>79</b>	Yes
<b>Total</b>		<b>2,132,151</b>	

Source: Energy Information Administration EIA GIS-NG, RDI Basecase Database.



CERTIFICATE OF SERVICE

I, Sandra Hileman, a legal secretary in the law firm of Patton Boggs LLP, hereby certify that on this 20<sup>th</sup> day of March, 2001, I caused to be delivered by Courier (\*) or First Class U.S. Mail a copy of the foregoing "Supplemental Affidavit of Michael G. Baumann and Stephen E. Siwek" to the following individuals:

Ms. Magalie Roman Salas\*  
(ORIGINAL PLUS ONE COPY)  
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\_\_\_\_\_  
Sandra Hileman

Dated: March 20, 2001