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**Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554**

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 7770792 MHz Bands	)	WT Docket No. 06-150
	)	
Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules	)	WT Docket No. 06-169
	)	
Implementing a Nationwide, Broadband Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	
Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010	)	WT Docket No. 96-86

To the Commission:

**Comments of the Utilities Telecom Council**

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The Utilities Telecom Council (“UTC,” formerly the United Telecom Council) respectfully submits its comments in the above-referenced proceeding.<sup>1</sup> UTC is the international trade association for the telecommunications and information technology interests of electric, gas and water utilities, pipeline companies and other critical infrastructure industries (CII).<sup>2</sup> UTC’s members include large investor-owned utilities that serve millions of customers, to smaller cooperative or municipal utilities that serve everything from major American cities to rural communities and sparsely settled service territories. Although these utilities differ in size and services, they all have one thing in common: they own, manage and operate critical communications systems that enable the safe, reliable and efficient delivery of essential water, gas, electric and other energy services to the public at large.

UTC urges the FCC to adopt policies and rules promoting emergency communications interoperability that recognize all emergency responders, including those responsible for restoring basic public services. Therefore, UTC and its members have an interest in this consolidated proceeding that seeks, among other issues, to establish a nationwide, interoperable mobile broadband network in the 700 MHz band. While the issues in this proceeding are many and

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<sup>1</sup> *Report and Order and Further Notice of Proposed Rulemaking*, WT Docket No. 06-150, CC Docket No. 94-102, WT Docket No. 01-309, WT Docket No. 03-264, WT Docket No. 06-169, PS Docket No. 06-229, WT Docket No. 96-86, FCC 07-72, released April 27, 2007 (“FNPR”).

<sup>2</sup> “Critical infrastructure industry” or CII is used as defined by the FCC in Section 90.7 of its Rules, 47 C.F.R. § 90.7.

complex, these comments will be limited to those matters in which critical infrastructure industries may, or should, play a role.<sup>3</sup>

**I. UTC Supports an Interoperable, Public/Private Network Such as That Proposed by Frontline Wireless, L.L.C.**

UTC agrees with the many public statements over recent months that the 700 MHz band presents a unique opportunity to address the ongoing problem of emergency communications interoperability. The upper 700 MHz band is the last sizeable piece of spectrum below 1 GHz that the Commission is likely to have at its disposal for the foreseeable future. Given the many statements concerning the need for a public/private partnership in order for public safety entities to gain a nationwide, interoperable network, UTC supports the concept of incorporating a means of achieving that network into the mandated auction of the 700 MHz band. The basic provisions of the Frontline Wireless, L.L.C. proposal<sup>4</sup> appear to provide a mechanism to achieve *real* emergency communications interoperability without stymieing the commercial broadband wireless potential of the frequency band, especially because of Frontline's inclusion of CII among eligible users.

**A. UTC Supports Basic Frontline Provisions.**

In summary, Frontline advocates including a small portion of the upper 700 MHz commercial spectrum to be auctioned in a larger system that

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<sup>3</sup> The Association of American Railroads has been consulted concerning the positions taken in these comments and supports their application to the railroad industry as part of CII.

<sup>4</sup> See, Comments of Frontline Wireless, LLC, *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150 (filed March 6, 2007); Comments and Reply Comments of Frontline Wireless, LLC, *Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229 (Feb. 26, 2007 and March 13, 2007); Letter from John Blevins, Counsel to Frontline Wireless, L.L.C. to Marlene H. Dortch, *WT Docket Nos. 06-150 and 06-169; PS Docket No. 06-229* (March 26, 2007).

incorporates the broadband portion of the Public Safety allocation. The portion of the commercial spectrum adjacent to the B Block guard band and the Public Safety allocation, to be known as the “E Block,” would be built out to a standard reached through agreement with a public safety licensee representing the broadband Public Safety allocation. The E block licensee also would be responsible for building out the broadband Public Safety spectrum to the same standard, with aggressive, geography-based construction benchmarks. Public Safety eligibles would continue to have primary use of the Public Safety spectrum, while other entities – non-Public Safety critical infrastructure entities<sup>5</sup> and retail service providers – would have primary access to the commercial spectrum. The above summary is an extreme simplification of the many details and issues surrounding the Frontline proposal. However, UTC supports this basic framework as a means of 1) achieving a nationwide, interoperable network; and 2) ensuring that CII personnel, as emergency responders, have the necessary tools to coordinate with public safety and others as needed through effective communications.

**B. CII Must Be Included Among Entities Having Access.**

The second point noted above is an essential component. Inclusion of CII such as utilities would help to eliminate, not only basic emergency coordination obstacles, but our own industry interoperability problems. As reported previously to the Commission, utilities provide nationwide and even international response

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<sup>5</sup> Some CII entities are already considered part of Public Safety. For example, as state or local government entities, municipal utilities and state power authorities are classified as Public Safety entities and are required to use Public Safety spectrum.

to each other during emergency situations, with tens of thousands of crews reporting to areas struck by hurricanes, ice storms, earthquakes or other disasters that result in damage to energy or water infrastructure. Utility communications infrastructure generally continues to function during and after such events. However, due to the scattered nature of our available frequencies, these personnel currently have no means of communicating with each other, causing greater danger to those working in hazardous and unfamiliar surroundings and necessitating inefficient use of host utility personnel, equipment and most importantly, valuable time. With no dedicated spectrum for CII currently allocated, another solution *must* be found to improve response.

Including CII among those with direct access to the E block would help toward solving this problem. Therefore, UTC advocates the wholesale model proposed by Frontline as far superior to the normal model of auctioning spectrum for subscriber-based services. Because of the wide-scale nature of utility service territories, costs and reliability concerns, utilities and other CII entities rarely take wireless service from a commercial provider for mission-critical communications. Therefore, a standard auction model, even one that incorporated the Public Safety broadband allocation, would shut off CII from any access to this important spectrum and what is expected to be the primary emergency communications network. Such an outcome would be no less than a tragedy for future disaster response in this country.

### **C. UTC Supports the Southern Governors' Association Resolution.**

UTC notes and applauds the recent resolution by the Southern Governors' Association (SGA), not only including utilities within the public safety community, but urging the FCC to provide priority access to utilities in spectrum below 1 GHz and to review regulations that discourage utilities from building shared systems that could benefit public safety.<sup>6</sup> UTC further notes the special expertise of SGA members on these issues, given this area's experience with major disasters in recent years: they have been in the field and seen how real response works, as well as when it doesn't. The recommendations of the SGA resolution would appear to be advanced significantly through the basic provisions of the Frontline proposal.

Direct access would permit utilities to benefit from the robust standard of the proposed network in ways that met their own needs, and would permit CII industries to work directly with the E Block licensee and with each other – whether publicly, customer- or investor-owned – on a nationwide basis. UTC urges the FCC to adopt a broadband network proposal that includes direct access for non-Public Safety CII to commercial spectrum.

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<sup>6</sup> Resolution, *Expressing a broad set of principles endorsed by the Southern Governors' Association regarding the development of a national interoperable public safety communications network*, Southern Governors' Association, submitted May 15, 2007, at 4. The Resolution also notes the need for network buildout in rural areas, which UTC further supports; thus, construction requirements should be based on geography, as Frontline recommends, rather than population.

## **II. UTC Urges Inclusion of Critical Infrastructure in Ongoing Governance of the Broadband Network.**

UTC wants to ensure that the proposed nationwide interoperable network meets its full potential, and is as robust and reliable as users will need.

Therefore, UTC urges that CII be included among groups with oversight of the network going forward.

CII communications systems include land mobile radio, microwave, broadband wireless, fiber and broadband over power line (BPL) systems. Utilities also are investigating and implementing privately built and maintained Wi-Fi or Wi-MAX systems, Radio over IP and mesh networks, among newer wireless technologies. These support a variety of utility applications, including voice and data for mobile dispatch and service restoration, supervisory control and data acquisition (SCADA), and other protective relaying. Future wireless networks are expected to be considerably larger and to guarantee two-directional communications between utilities and their assets, their workforces and their customers (as well as customers' appliances, homes, businesses, HVAC systems, etc.): planning and deployment of these "next-generation" systems has already begun. These systems are designed, built and maintained to standards that typically exceed those of commercial communications systems; and they reach remote areas where commercial communications systems are not reasonably available. Just as public safety systems must cover rural areas, so, too, must utility communications networks function everywhere the power and water lines go.

Worker safety in hazardous conditions is the prime consideration for mobile voice and data systems; otherwise, utility uses for communications technology are somewhat different from those of traditional public safety, although much of the equipment used is the same, or very similar. There is no question that utilities understand the need for robust, wide-reaching and most importantly, ultra-reliable communications networks. The FCC's own panel investigating response to Hurricane Katrina noted that robust utility terrestrial networks were quite often functioning when all other systems were down;<sup>7</sup> this is the usual standard for systems that will be needed most when basic services are destroyed and must be restored. If utilities and other CII are to benefit from the nationwide interoperable network, it must meet similar standards to those of their internal networks. This is not a function that these highly regulated entities, with increasing regulatory responsibility for reliability, can leave to others. Thus, utilities should be included among interested parties in the ongoing governance of the nationwide broadband network.

The precise means by which the network will be overseen is unclear from the current record. However, it is appropriate that all prospective user groups be represented on an ongoing basis, almost from the point that the E-block licensee and the national public safety licensee (assuming a framework such as that Frontline has proposed is adopted) come to agreement. Indeed, UTC assumes

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<sup>7</sup> See, *Report and Recommendations to the Federal Communications Commission*, Independent Panel Reviewing the Impact of Hurricane Katrina on Communications Networks, June 12, 2006, at 12-13.

that CII would work with the E-block licensee, separately from the public safety licensee and on an informal basis, to ensure that network standards meet CII robustness standards and to assist with buildout as appropriate. However, inclusion in a formal oversight group, to include the public safety licensee, CII and retail service representatives, is imperative on an ongoing basis.

### **III. CII Should Have Access to the Returned 700 MHz Guard Band Spectrum.**

Beyond its potential as a home for a public safety network, this proceeding offers a unique opportunity for the FCC both to create a truly interoperable emergency communications system that will include *all* needed parties, and to substantially see to an enduring, unmet need. Providing CII access to the returned guard band spectrum also can create real opportunities for partnerships between CII and public safety that can only benefit the public. This creative solution harms no one and is well within the Commission's authority.

When Congress passed the Balanced Budget Act of 1997, it exempted "public safety radio services" from the general requirement to license mutually exclusive applications for spectrum through competitive bidding.<sup>8</sup> It explained that the class of public safety radio services includes "utilities, railroads, metropolitan transit systems, pipelines, private ambulances, and volunteer fire departments."<sup>9</sup> The FCC agreed, and included utilities and other critical

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<sup>8</sup> See 47 U.S.C. §309(j)(2)(A).

<sup>9</sup> See H.R. Conf. Rep. No. 105-217, 105<sup>th</sup> Cong., 1<sup>st</sup> Sess. at 572 (1997).

infrastructure industries as providers of public safety radio services.<sup>10</sup> That was in 2000, and the FCC has yet to provide any spectrum for public safety radio services in general or critical infrastructure industries specifically. The 700 MHz band represents an opportunity to begin to fulfill Congress's intent.

In the NPRM, the Commission states that "awarding the commercial bands to [critical infrastructure industries] outside of the competitive bidding process would be inconsistent with Section 337(a)."<sup>11</sup> UTC respectfully disagrees. While the initial statutory mandate called for 36 megahertz of spectrum in the upper 700 MHz Band to be assigned by competitive bidding,<sup>12</sup> UTC submits that the FCC's hands are not tied now. There is nothing in the statute that prevents the FCC from assigning commercial spectrum for critical infrastructure industries, particularly where, as here, the FCC has already allocated the spectrum for commercial services and the spectrum has been returned. The Commission has satisfied any obligation to auction the spectrum by virtue of having already auctioned it.

In addition, there is a distinct difference between statutory restrictions on public safety and the situation of CII concerning the 700 MHz band. UTC agrees with the Commission's conclusion regarding the proposed "Broadband Optimization Plan" proposal, since that plan would negate Congressional intent to assign 24 MHz, specifically, to traditional public safety. However, the FCC may

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<sup>10</sup> *Implementation of Sections 309(j) and 337 of the Communications Act of 1934, as Amended*, WT Docket No. 99-87, Report and Order, 15 FCC Rcd. 22709, 22747, ¶ 77 (2000) ("BBA 97 R&O"). See also 47 C.F.R. §90.7 (2006) (defining critical infrastructure industry).

<sup>11</sup> See *Further NPRM* at ¶133.

<sup>12</sup> See *Further NPRM* at n. 491.

allocate the spectrum for critical infrastructure use, even if it decides it may not add it to the public safety allocation.<sup>13</sup> Unlike the case with public safety, the statute does not confine the amount of spectrum that the FCC can assign to critical infrastructure.<sup>14</sup> Moreover, the FCC itself promised to address the spectrum concerns of CII when it implemented the BBA 97.<sup>15</sup> Now is the time to deliver on that promise.

UTC also is extremely concerned about the practical outcome of the Commission's analysis regarding this issue. Realistically, the rationale that spectrum must always be licensed by competitive bidding would close off any chance that vitally needed spectrum will be available for critical infrastructure industries that are auction-exempt, must build their own internal systems to meet reliability requirements, and are unable to participate in auctions for a large number of reasons. With few exceptions, the FCC has only allocated spectrum for commercial services since Congress gave it auction authority fourteen years ago. One exception has been the 4.9 GHz band, and that spectrum was allocated to a narrow class of public safety services, rather than the broader class of public safety radio services.<sup>16</sup> The Commission's recent rationale is especially problematic in spectrum below 1 GHz, where non-commercial

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<sup>13</sup> The FCC need not lump the two together, as it did in the *Further NPRM*. See *Further NPRM* at ¶236.

<sup>14</sup> See 47 U.S.C. §337(a)(1) (allocating 24 MHz of spectrum for public safety services).

<sup>15</sup> See *BBA R&O* at 103 ("We note, however, that our decision not to create a third pool below 470 MHz does not preclude us from using other mechanisms (*e.g.*, Band Managers or a change of licensing schemes) in these or other bands, in order to appropriately respond to the concerns set forth by the CII.")

<sup>16</sup> While the Commission allocated 4940-4990 MHz for services "in support of public safety," and encouraged partnerships between public safety and CII, the ineligibility for direct licensing has resulted in CII having nearly no opportunity for such partnerships.

spectrum is extremely scarce or is already allocated, but where CII must focus its efforts due to the costs of building infrastructure for non-commercial, non-profit purposes. If utilities and other critical infrastructure industries are to have any chance for access to the spectrum they must have to maintain reliable basic services, the Commission must consider assigning spectrum for public safety radio services.

As a policy matter, assigning commercial spectrum for CII internal systems would be entirely consistent with Congress's express intent to promote public safety radio services. CII currently have no access to dedicated spectrum, and what spectrum they do use is scattered, increasingly congested and subject to interference from other users. This is inexcusable and a serious threat to both safety and homeland security. As the FCC and Congress recognized, for utilities and other critical infrastructure industries, "radio is used as a critical tool for responding to emergencies that could impact hundreds or thousands of people . . . the nature of their day-to-day operations provides little or no margin for error and in emergencies they can take on an almost quasi-public safety function. Any failure in their ability to communicate by radio could have severe consequences on the public welfare."<sup>17</sup> Therefore, the FCC should assign spectrum for public safety radio services, which is demonstrably consistent with the public interest and long overdue.

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<sup>17</sup> BBA R&O at ¶176.

**IV. Alternatively, the Commission Should Require E-Block Licensees to Provide Priority Access for Utilities and Other Critical Infrastructure Industries.**

If the Commission refuses to dedicate spectrum for critical infrastructure communications, it should require by rule that critical infrastructure industries have priority access to the E block that is won at auction. This would help meet CII's need for reliable communications, while at the same time address the Commission's concerns about auctioning commercial spectrum. Utilities and other critical infrastructure industries need regulatory certainty in order to invest in communications technologies and services. Providing a rule requiring priority access for critical infrastructure will help to provide that necessary regulatory certainty.

Conversely, utilities and other critical infrastructure industries will be reluctant to invest in systems and services that are subject to congestion and interference, particularly for mission-critical systems that must operate during outages and other emergencies. Leaving this decision to market forces and the commercial interests of a wholesale licensee could lead to the very congestion and interference that critical infrastructure is trying to escape in existing bands. That will not serve the public interest in ensuring the safe, efficient and reliable delivery of essential services to the public at large. As such, UTC respectfully recommends that the FCC require priority access for critical infrastructure communications in the E-block.

## **V. Conclusion**

UTC supports the basic framework of the Frontline Wireless proposal and urges the FCC to take this opportunity to promote a nationwide, interoperable network that can meet the needs of *all* emergency responders. UTC agrees with Frontline's inclusion of CII among those with direct access to the commercial portion of the network, and believes this is key to real interoperability and to effective emergency response. Further, CII must be included in ongoing governance of the overall network. The FCC has the authority to allocate returned 700 MHz Guard Band licenses for CII use without an auction, through CII's designation as "public safety radio services," and should do so. Otherwise, UTC notes the recent Southern Governors' Association resolution calling for utility priority access to spectrum below 1 GHz and recommends that the FCC provide for CII priority access as part of this proceeding.