

**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, D.C. 20554**

In the Matter of	)	
	)	
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150
	)	
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
	)	
Petition for Declaratory Ruling Asking to Clarify the Scope of Section 337 Regarding Use by State or Local Government Entities of the 700 MHz Public Safety Broadband Spectrum	)	

To: The Commission

**COMMENTS OF SOUTHERN COMPANY SERVICES, INC.  
ON THE  
FOURTH FURTHER NOTICE OF PROPOSED RULEMAKING AND  
THE CITY OF CHARLOTTE PETITION FOR DECLARATORY RULING**

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## **EXECUTIVE SUMMARY**

Southern submits that including utilities and other critical infrastructure (“CI”) entities on the 700 MHz public safety broadband network is overwhelmingly in the public interest. As discussed herein, allowing shared use of the 700 MHz public safety broadband network will provide a platform for the deployment of communications systems supporting Smart Grid and other critical utility operations. In addition, allowing shared use of the network by public safety and public utilities – entities with very similar communications needs and requirements – will create funding opportunities for implementing the 700 MHz public safety broadband network. Finally, shared use of the public safety broadband network will result in cost, spectral, and other efficiencies that will not only expedite the implementation of the network and increase the overall level of safety and essential services available to the public, but will also result in job creation and a decreased burden on US taxpayers.

Public utilities have long played a vital role in directly supporting public safety services and are frequently called on to provide immediate assistance to first responders. For example, in addition to deenergizing and clearing downed power lines, public safety frequently depends on utilities during storm events and other larger-scale natural or man-made emergencies to clear downed trees and other obstacles in order to make a path for first responders to reach areas of concern. Utilities and public safety also have similar communications needs, with both requiring a high standard of reliability, a high level of survivability, and extensive coverage even in rural and remote areas. A single system designed and built to these specifications would satisfy the needs and requirements of public safety and public utilities alike, thus making utilities a natural partner for public safety in a shared 700 MHz system.

As discussed herein, Section 337 of the Act does not prohibit the use of the 700 MHz public safety broadband spectrum by utilities. In particular, Section 337(a) only directs the Commission to “allocate” spectrum for “public safety services.” Unless explicitly stated otherwise, the allocation of spectrum for a particular service does not necessarily preclude access to or use of that spectrum for the provision of other services, so long as the predominant use of that spectrum is for the service for which it was allocated. It is therefore significant that nowhere in Section 337 does it state that this allocation for “public safety services” is *exclusive*, nor are there any explicit restrictions in Section 337 regarding entities that may *access* this allocation or of the specific uses to be made of the spectrum.

Thus, under a plain-language reading of the statute, Section 337 guarantees that the designated 700 MHz public safety band will be available for the provision of “public safety services,” but does not prohibit other uses of this band that do not inhibit access to this spectrum for public safety services. This reading is supported by the legislative history of Section 337, which shows that Congress in fact anticipated the Commission would adopt rules that would not only allow, but also promote, the development of shared public safety/public utility radio systems in the 700 MHz band. Accordingly, it is well within the Commission’s authority and discretion to allow utilities and other CI entities to use the 700 MHz public safety broadband network in a manner that ensures that this spectrum is used principally for public safety services.

Southern submits that the essential character of this spectrum as “public safety” spectrum can be maintained through the guidelines or contractual arrangements that are developed by the parties sharing the network in each locality or region. Accordingly, one of the most important things that the parties will need to develop as part of their sharing agreements will be the applicable protocols for prioritizing traffic on the system. While the Commission could establish

broad, general guidelines (perhaps based on the Telecommunications Service Priority (TSP) system and Priority Access Service (PAS)) that would give the parties guidance, prioritization should be a matter for the parties to a shared 700 MHz radio system to develop and agree to contractually amongst each other, given that the relevant priorities and needs of public safety services and other users of the shared radio system will vary from area to area, as well as in accordance with the types of entities that are using the shared system.

While a prioritization plan developed by the parties should sufficiently ensure that the principal purpose of use of the spectrum is for public safety services, the Commission could add a further layer of certainty by adopting a requirement that the system only be used by entities for their own internal communications requirements and not for the provision of commercial communications services to the public. If the Commission should further determine that shared access users should have a “quasi-public safety focus” or a “sufficient nexus to public safety,” Southern recommends that the Commission look to the types of services and entities that Congress sought to benefit through the adoption of the “public safety radio service” auction exemption in Section 309(j)(2) of the Communications Act.

In order to provide sufficient incentive for a utility or other nongovernmental entity to invest in a shared system, however, the consent process for access to the spectrum should not stand as a barrier to system construction or operation. Moreover, the nongovernmental partner in the shared system must be given sufficient protections and guarantees regarding their ongoing access to the network in order to justify its investment in making the system possible.

Finally, while Southern supports the Commission’s tentative conclusion to allow the operation of fixed services in the 700 MHz public safety band, fixed operations in this band should not be restricted to a secondary, non-interference basis only.

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Southern Company Services, Inc. (“Southern”), on behalf of itself and its operating affiliates, hereby submits its comments in response to the Federal Communications Commission’s request for further comment on the implementation of a nationwide interoperable public safety broadband network.<sup>1</sup> In addition to addressing the issues raised in the *Fourth FNPRM*, Southern also responds herein to the Commission’s request for comment on a Petition

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<sup>1</sup> / *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, WT Docket No. 06-150, PS Docket No. 06-229, Third Report and Order and Fourth Further Notice of Proposed Rulemaking, FCC 11-6 (rel. Jan. 26, 2011) (“*Third Report and Order*” and “*Fourth FNPRM*”).

for Declaratory Ruling filed in this docket on March 7, 2011, by the City of Charlotte, North Carolina.<sup>2</sup>

As set forth below in these comments, the inclusion of utilities and other critical infrastructure entities on the 700 MHz public safety broadband network is overwhelmingly in the public interest and is well within the Commission's statutory authority and discretion. In particular, Section 337 of the Communications Act does not prohibit the use of the 700 MHz public safety spectrum by utilities. To the contrary, Congress in fact anticipated and intended that the Commission would adopt rules to not only allow, but also promote, the development of shared public safety/public utility radio systems in the 700 MHz band. Accordingly, the Commission should take action to permit and facilitate shared public safety/public utility use of the 700 MHz public safety broadband network.

## **I. INTRODUCTION**

Southern Company Services, Inc. is a wholly-owned subsidiary service company of Southern Company, a super-regional energy company in the Southeast United States. Southern Company also owns four electric utility subsidiaries – Alabama Power Company, Georgia Power Company, Gulf Power Company, and Mississippi Power Company – which provide retail and wholesale electric service throughout a 120,000 square mile service territory in Georgia, most of Alabama, and parts of Florida and Mississippi. Members of the Southern Company family use a variety of communications technologies, including FCC licensed radio spectrum, to support the safe and efficient delivery of energy services to their customers.

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<sup>2</sup> / Public Safety and Homeland Security Bureau Seeks Comment on Petition for Declaratory Ruling Asking to Clarify the Scope of Section 337 Regarding Use by State or Local Government Entities of the 700 MHz Public Safety Broadband Spectrum, PS Docket No. 06-229, Public Notice, DA 11-537 (rel. March 22, 2011) (“Public Notice”).

## II. THE DEVELOPMENT AND DEPLOYMENT OF SHARED PUBLIC SAFETY/PUBLIC UTILITY 700 MHZ SYSTEMS IS IN THE PUBLIC INTEREST

In the *Fourth FNPRM*, the Commission recognized the “strong desire of many in the public safety community” to include other users on the 700 MHz public safety broadband network, such as utilities, public works, and other critical infrastructure entities.<sup>3</sup> As the Commission noted, this would enable the coordination of common activities and joint response to emergencies, as well as provide “a method to spread costs and capitalize on infrastructure sharing opportunities,” thus promoting the more rapid and certain deployment of the 700 MHz public safety broadband network.<sup>4</sup>

Southern submits that including utilities and other critical infrastructure (“CI”) entities is overwhelmingly in the public interest. As discussed below, allowing shared use of the 700 MHz public safety broadband network will provide a platform for the deployment of communications systems supporting Smart Grid and other critical utility operations. In addition, allowing shared use of the network by public safety and public utilities – entities with very similar communications needs and requirements – will create funding opportunities for implementing the 700 MHz public safety broadband network. Finally, shared use of the public safety broadband network will result in cost, spectral, and other efficiencies that will not only expedite the implementation of the network and increase the overall level of safety and essential services available to the public, but will also result in job creation and a decreased burden on US taxpayers.

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<sup>3</sup> / *Fourth FNPRM* at ¶ 135.

<sup>4</sup> / *Id.*

**A. Allowing Shared Use of the 700 MHz Public Safety Broadband Network Will Provide a Platform for Smart Grid and Other Communications Supporting Critical Utility Operations**

As the Commission is well aware, many utilities are interested in access to the 700 MHz public safety broadband spectrum as a way to meet their Smart Grid communications needs. Southern feels it is necessary, however, to clarify at the outset what utilities mean by “Smart Grid” in the context of the 700 MHz band.

Specifically, utilities are generally not looking to use the 700 MHz public safety band to support automated metering and “smart meter” applications, which is a common misperception. In fact, meter-based applications, while important, are considered to be relatively low priority in terms of their communications requirements and their role in the overall management of the electric grid as a whole. Because these applications are generally much less affected by service outages, jitter, dropped or delayed signals, and other issues affecting quality, reliability, and availability, utilities generally look to other existing options – such as existing utility communications systems, commercial communications networks, or even unlicensed spectrum – to meet their “smart meter” communications needs. Accordingly, it would make little sense for a utility to make significant investments in the development and deployment of a shared 700 MHz system solely for the purpose of communicating with its meters.

Instead, utilities generally view the 700 MHz public safety band as a band that is exceptionally well-suited for high-priority, mission-critical communications that are essential to critical utility operations and the safe, reliable, and efficient delivery of electric power to the public. In the context of Smart Grid, this includes critical command and control applications

such as load management, protective relaying,<sup>5</sup> and supervisory control and data acquisition (“SCADA”) systems.<sup>6</sup> These command and control applications require extremely low levels of latency – *i.e.*, the amount of time it takes for information to traverse the entire circuit, including all network components, from the controller to the remote terminal unit and back to the controller. Southern’s operating affiliates generally require latency levels of less than 100 milliseconds for these command and control applications, with any increase in latency to 250 milliseconds or greater considered unacceptable.<sup>7</sup>

In addition, in order to maintain the levels of service, safety, and reliability needed by the public – and increasingly mandated by federal and state regulators – utility communications systems must work twenty-four hours a day, seven days a week, 365 days a year at a standard of reliability of 99.999 percent to meet America’s “everyday” needs, and especially during service

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<sup>5</sup> / Protective relaying involves tripping circuit breakers on the electric transmission grid to prevent a power fault from cascading and increasing the risk to life and property.

<sup>6</sup> / As described by NTIA: “SCADA systems are generally computer-controlled radio communications links that allow a [utility] user to control and monitor power generation, storage and distribution systems without having to deploy staff where the equipment is located ... As modern utility systems have increased in complexity, SCADA systems have become critical components of their command and control infrastructure. These systems help to automate tasks like opening and closing circuit breakers, monitoring system reliability, and monitoring alarms for overload conditions. Marshall W. Ross and Jeng F. Mao, *Current and Future Spectrum Use by the Energy, Water, and Railroad Industries*, U.S. Department of Commerce, National Telecommunications and Information Administration, Jan. 2002 at 3 – 10.

Southern’s SCADA system enables its operating companies to monitor transmission and distribution operations in real time; quickly identify potential or actual problems (such as outages); adjust voltages and deenergize lines to efficiently manage load levels, prevent or contain outages, and ensure safety of the public (*e.g.*, from downed lines, etc.); and collect and transmit voluminous amounts of data between remote facilities and headquarters, thus increasing the efficiency of field inspection and maintenance operations and ensuring the integrity of the power grid.

<sup>7</sup> / See also *Communications Requirements of Smart Grid Technologies*, U.S. Department of Energy, Oct. 5, 2010, at 39 – 40 (discussing the latency and reliability requirements for SCADA systems).

outages, natural or man-made disasters, and other emergency situations. Reliability also means that utility communications systems must be instantaneously available at any time to handle large amounts of traffic, such as during or following major emergencies when major repair or restoration of critical utility service and infrastructure must be carried out as quickly as possible while any damages or danger to the public from power surges, downed power lines, etc., are minimized.

For these reasons, Southern and other utilities are interested in the potential of shared use arrangements with public safety that would provide utilities access to the 700 MHz public safety broadband network to support their critical Smart Grid and operational communications needs. Southern emphasizes, however, that the Smart Grid deployment plans and communications needs of each utility vary on a utility-by-utility basis and that access to the 700 MHz public safety broadband spectrum ultimately may not be necessary or appropriate for many utilities. Nevertheless, the Commission should take care to not foreclose any options for Smart Grid deployment prematurely, whether in the 700 MHz public safety band or in other suitable spectrum bands.

**B. Public Safety and Public Utilities Have a Close Interrelationship and Similar Communications Needs**

Public utilities have long played a vital role in directly supporting public safety services. As stated in the National Broadband Plan, “In a natural disaster or terrorist attack, clearing downed power lines, fixing natural gas leaks and getting power back to hospitals, transportation hubs, water treatment plants and homes are fundamental to protecting lives and property.”<sup>8</sup>

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<sup>8</sup> / Omnibus Broadband Initiative, Federal Communications Commission, *Connecting America: The National Broadband Plan* (“National Broadband Plan”), Chapter 12 (“Energy and the Environment”), Section 12.1 (March 2010).

Not only do utilities provide (or restore) critical services such as electric power, but utilities are also frequently called on to provide immediate assistance to first responders. For example, utilities are often called on by public safety agencies to immediately deenergize downed power lines or to cut off electric power or natural gas service to burning structures in order to mitigate hazards to firefighters such as through electrocution or explosion. In addition, immediate restoration of electric power is often needed to enable public safety to carry out its mission. Furthermore, public safety frequently depends on utilities during storm events and other larger-scale natural or man-made emergencies to clear downed trees and other obstacles in order to make a path for first responders to reach areas of concern. As one witness testified during a recent Congressional hearing on public safety communications, most police and fire departments “are too small to contain their own logistical support, such as heavy equipment or emergency generators” and therefore depend on rapid logistical support from “non-first responder” agencies and entities, such as public works departments and utilities.<sup>9</sup>

Finally, of course, there is no more dramatic example of how utility workers protect the safety of life, health, and property – sometimes at enormous personal risk – than the brave workers in Japan who continue to work on stabilizing the situation at the Fukushima Dai-Ichi nuclear power plant and on restoring power to the systems needed to cool the fuel at the plant in order to avert a much graver public crisis.

In addition to the direct support utilities provide to public safety, utilities and public safety have similar communications needs and requirements. Utility communications, like public safety communications, require a high standard of reliability, a high level of survivability,

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<sup>9</sup> / *Public Safety Communications: Are the Needs of our First Responders Being Met?*, Hearing Before the House Comm. On Homeland Security, Testimony of Gregory L. Simay, March 30, 2011, at 5.

and extensive coverage even in rural and remote areas.<sup>10</sup> A single system designed and built to these specifications would satisfy the needs and requirements of public safety and public utilities alike, thus making utilities a natural partner for public safety in a shared 700 MHz system. As Chief Jack Parow, President and Chairman of the Board of the International Association of Fire Chiefs, testified in a recent hearing before the US House of Representatives Committee on Homeland Security, “Public safety expects to enter into public-private partnerships. We will work with state, county and local government agencies, federal partners, electric and gas utilities and others who respond to emergencies such as highway and water agencies.”<sup>11</sup>

Accordingly, as demonstrated above, the inclusion of utilities, public works, and other critical infrastructure entities on the 700 MHz public safety broadband network serves the public interest by enabling these entities and public safety to coordinate common activities and joint response to emergencies and further enhance the protection of safety of life, health, and property.<sup>12</sup>

**C. Utilities Can Provide Essential Funding and Support for the 700 MHz Public Safety Broadband Network**

By far the most significant obstacle to the implementation of a nationwide interoperable 700 MHz public safety broadband network is funding for the construction and operation of the network itself, especially in the current economic and budgetary environment. Previous efforts by the Commission to raise the necessary proceeds through a commercial auction of the 700

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<sup>10</sup> / See National Broadband Plan, Chapter 12, Section 12.1 (“The wide-area network requirements of utilities are very similar to those of public safety agencies. Both require near-universal coverage and a resilient and redundant network, especially during emergencies.”).

<sup>11</sup> / *Public Safety Communications: Are the Needs of our First Responders Being Met?*, Hearing Before the House Comm. On Homeland Security, Testimony of Jack Parow, March 30, 2011.

<sup>12</sup> / See *Fourth FNPRM* at ¶ 135.

MHz “D Block” were unsuccessful, and while other efforts are currently underway on Capitol Hill, Congress has yet to fully identify or approve a sufficient source of funding for network construction and operation. Moreover, the primary sources of funding tentatively identified by Congress involve proceeds from future auctions of spectrum that has yet to be cleared for commercial use, meaning that it will likely be years before any of this funding will actually become available for public safety.

Therefore, the most certain source of funding for the prompt deployment and implementation of 700 MHz systems that will make up the nationwide public safety broadband network lies in public/private partnerships between public safety and public utilities and other critical infrastructure entities. Allowing utilities and other CI entities to use the 700 MHz public safety spectrum to support their own critical internal communications needs would provide a strong incentive for utilities to enter into partnerships with public safety for the construction and operation of shared 700 MHz systems that will make this spectrum available for public safety services in many areas of the country.

As discussed above, utilities and public safety essentially have the same communications needs and requirements. In addition to funding, utilities can contribute to local and regional 700 MHz public safety systems through the sharing of infrastructure and through the utilities’ own experience and expertise in network design and operation. As the Commission recognized in the *Fourth FNPRM*, this would provide “a method to spread costs and capitalize on infrastructure sharing opportunities,” thus promoting the more rapid and certain deployment of the 700 MHz public safety broadband network.<sup>13</sup>

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<sup>13</sup> / *Fourth FNPRM* at ¶ 135.

**D. Shared Public Safety/Public Utility Use of the 700 MHz Public Safety Band Is In the Public Interest**

As demonstrated above, allowing utilities and other CI entities to use the 700 MHz public safety band on a shared basis has numerous public interest benefits. First, allowing shared use of this band will create incentives for the investments necessary to implement the 700 MHz public safety broadband network on a far more expedient basis. In addition, utility investment and involvement in the implementation of 700 MHz public safety broadband systems will not only generate significant cost savings for federal, state, and local governments and for US taxpayers as a whole, but will also result in the creation of new jobs and employment opportunities, particularly those related to the construction and operation of wireless communications networks and infrastructure.

Allowing shared use of this network will also enable public safety to leverage the infrastructure and experience of public utilities – whose communications and network requirements mirror those of public safety – thus further promoting the efficient, timely, and cost-effective deployment of 700 MHz public safety broadband systems. As Chief Parow testified to Congress, public safety in fact *expects* to enter into public-private partnerships with utilities in order to implement the 700 MHz public safety broadband network.<sup>14</sup>

Moreover, by allowing public utilities to use the 700 MHz public safety broadband network in support of their own critical communications needs, the Commission would facilitate utility deployment of Smart Grid and other critical communications capabilities that will further

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<sup>14</sup> / See note 11, *supra*.

enhance the safety, reliability, and efficiency of the delivery of electric power to the public – a stated national policy priority.<sup>15</sup>

Finally, by allowing utilities to enter into partnerships with public safety for shared use of the 700 MHz public safety spectrum, the Commission will encourage spectral efficiencies that will ensure that the 700 MHz band is being put to its best possible use.

For these reasons, Southern submits that allowing utilities to use the 700 MHz public safety network for their critical internal communications needs is overwhelmingly in the public interest and the Commission should therefore act promptly to make such public safety/public utility partnerships both possible and feasible.

### **III. THE COMMISSION HAS SUFFICIENT AUTHORITY TO PERMIT USE OF THE PUBLIC SAFETY BROADBAND NETWORK BY UTILITIES**

When it last considered the question of who may use the 700 MHz public safety broadband spectrum, the Commission tentatively concluded that utilities and other critical infrastructure entities are not eligible to use this spectrum because the Commission did not consider the “sole or principal purpose” of these entities’ services to be the protection of life, health, or property.<sup>16</sup> However, as discussed above in these comments and as acknowledged by the Commission in the *Fourth NPRM*, the significant public interest benefits of allowing public

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<sup>15</sup> / See National Broadband Plan, Chapter 12 (stating “[t]he Smart Grid is a national priority for several reasons.”); See also The American Recovery and Reinvestment Act of 2009, Pub. L. No. 111-5, § 6001(k)(2)(D), 123 Stat. 115, 516 (2009); Title XIII of the Energy Independence and Security Act of 2007, § 1301, Pub. L. No. 110-140, 121 Stat. 1492 (2007) (stating that it is the policy of the United States “to support the modernization of the Nation’s electricity transmission and distribution system to maintain a reliable and secure electricity infrastructure that can meet future demand growth.”).

<sup>16</sup> / *Fourth FNPRM* at ¶ 134 (citing *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, WT Docket No. 06-150, PS Docket No. 06-229, Third Further Notice of Proposed Rulemaking, 23 FCC Rcd 14301, 14405-06 ¶¶ 323-326 (2008)).

safety to share use of the 700 MHz broadband network with utilities and other public service entities warrant a reexamination of who may use this spectrum under Section 337 of the Communications Act.<sup>17</sup>

As discussed below, Southern submits that Section 337 of the Act does not prohibit the use of the 700 MHz public safety broadband spectrum by utilities. To the contrary, the legislative history of Section 337 demonstrates that Congress in fact anticipated and intended for the Commission to adopt rules that would not only allow, but also promote, the development of shared public safety/public utility radio systems in the 700 MHz band. Accordingly, Congress adopted statutory language for Section 337 that ensures the availability of this 700 MHz spectrum for public safety while providing the Commission with sufficient flexibility and discretion to develop rules – including determinations of eligibility – for the use of this spectrum that would best facilitate the actual implementation and deployment of a public safety broadband network and that will serve the public interest.

**A. Section 337 Does Not Prohibit or Preclude Use of the 700 MHz Public Safety Band for Other Non-Commercial Services**

As part of the Balanced Budget Act of 1997, Congress added a new Section 337 to the Communications Act to, among other things, direct the Commission to allocate a block of spectrum in the 700 MHz band for “public safety services.”<sup>18</sup> Specifically, Section 337 provides, in pertinent part:

(a) In general

Not later than January 1, 1998, the Commission shall allocate the electromagnetic spectrum between 746 megahertz and 806 megahertz, inclusive, as follows:

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<sup>17</sup> / *Fourth FNPRM* at ¶¶ 134 – 135.

<sup>18</sup> / Pub. L. No. 105-33, Title III, 111 Stat. 251 (1997).

- (1) 24 megahertz of that spectrum for public safety services according to the terms and conditions established by the Commission, in consultation with the Secretary of Commerce and the Attorney General;

\* \* \*

(f) Definitions

For purposes of this section:

(1) Public safety services

The term “public safety services” means services—

(A) the sole or principal purpose of which is to protect the safety of life, health, or property;

(B) that are provided—

(i) by State or local government entities; or

(ii) by nongovernmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services; and

(C) that are not made commercially available to the public by the provider.

(47 U.S.C. § 337).

As the language of the statute shows, Section 337(a) only directs the Commission to “allocate” spectrum for “public safety services.” The use by Congress of the term “allocate” is significant, as this refers to the process by which certain bands of spectrum are designated for particular purposes generally defined by the *service* being provided (*e.g.*, broadcasting service, cellular telephone service, etc.) rather than by the entity providing the service.

Unless explicitly stated otherwise, the allocation of spectrum for a particular service does not necessarily preclude access to or use of that spectrum for the provision of other services, so long as the predominant use of that spectrum is for the service for which it was allocated.

Therefore, it is also significant that, while Section 337 mandates the allocation of 24 MHz of spectrum in the 700 MHz band for “public safety services,” nowhere in the statute is it stated that this allocation is *exclusive*.<sup>19</sup> Furthermore, there are no explicit restrictions in Section 337 regarding the licensing or usage eligibility of entities that may *access* this allocation or of the specific uses to be made of the spectrum.

Instead, Section 337(a) states only that the allocation of this 700 MHz spectrum shall be made “according to the terms and conditions established *by the Commission* in consultation with the Secretary of Commerce and the Attorney General.” Thus, Congress clearly intended to provide the Commission with full authority and discretion to develop appropriate rules and requirements regarding the specific manner in which this spectrum is to be licensed and used, so long as, at a minimum, the spectrum is available for the provision of public safety services by the entities described in Section 337(f).

In other words, under a plain-language reading of the statute,<sup>20</sup> Section 337 guarantees that the designated 700 MHz public safety band will be available for the provision of public safety services (as defined in Section 337(f)), but does not prohibit other uses of this band that do not inhibit access to this spectrum for public safety services. Accordingly, it is well within the Commission’s authority and discretion to allow utilities and other CI entities to use the 700 MHz

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<sup>19</sup> / Similarly, there is no indication in the Conference Report accompanying the Balanced Budget Act of 1997 that Congress ever intended to allocate this spectrum exclusively for public safety services or to prohibit any other uses of this band on an ancillary basis. *See* H.R. REP. NO. 105-217, 105<sup>th</sup> Cong., 1<sup>st</sup> Sess., at 578 – 580 (1997).

<sup>20</sup> / *See Chevron v. NRDC*, 467 U.S. 837 (1984).

public safety broadband network in a manner that ensures that this spectrum is used principally for public safety services, as described below in these comments.<sup>21</sup>

This understanding of the plain language of Section 337 is supported by the legislative history of the Balanced Budget Act of 1997, by which Section 337 was added to the Communications Act. This legislative history not only shows that Congress did not intend the reallocated 700 MHz spectrum to be used *exclusively* for public safety services, but demonstrates furthermore that Congress in fact anticipated that the Commission would adopt rules that would promote – not prohibit – the development of shared public safety/public utility radio systems in this band.

In the Senate floor debate on the legislation’s public safety-related spectrum provisions, Senator Bryan stated, “In adopting rules for the use of this new spectrum, I hope the FCC will promote the development of shared public safety/public service radio systems.”<sup>22</sup> Senator Bryan then described in detail the significant benefits and advantages of the shared radio network that had been developed in Nevada for use by public safety, public utilities (including privately-owned utilities), and state and local government agencies.<sup>23</sup> In response, Senator McCain, then-Chairman of the Senate Commerce Committee, agreed with Senator Bryan, stating, “I would also like to offer my support for the allocation of new spectrum for use by public safety and public service organizations, and would urge the FCC to adopt rules that would facilitate, if not promote, the development of shared radio systems by such entities.”<sup>24</sup>

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<sup>21</sup> / Section 303(y) of the Communications Act also grants the Commission general authority to allow flexible use of spectrum allocations. 47 U.S.C. § 303(y).

<sup>22</sup> / 105 CONG. REC. S6325 (1997).

<sup>23</sup> / *Id.*

<sup>24</sup> / *Id.*

As demonstrated above, Section 337 of the Act does not prohibit utilities from accessing or using the 700 MHz public safety broadband network through a partnership or other arrangement with public safety. If anything, the legislative history indicates that Congress intended that the Commission would implement Section 337 in a way that would permit or even promote the development of shared public safety/public utility radio systems in the 700 MHz public safety band.

**B. The Intent of Section 337 is Met if the Dominant Use of the Allocation is Expected to Be in Support of Public Safety**

As part of its reexamination of Section 337, the Commission should also take into consideration the analysis it applied in implementing Section 309(j)(2) of the Communications Act, which was adopted along with Section 337 as part of the Balanced Budget Act of 1997. Not only were Section 309(j)(2) and Section 337 adopted contemporaneously pursuant to the same legislative action, but the history of this legislation shows a close relationship between these provisions.

Section 309(j)(2) of the Act provides that the Commission's authority to auction spectrum does not apply to licenses or construction permits issued by the Commission "for public safety radio services, including private internal radio services used by State and local governments and non-government entities and including emergency road services provided by not-for-profit organizations, that (i) are used to protect the safety of life, health, or property; and (ii) are not made commercially available to the public."<sup>25</sup>

According to the Conference Report accompanying the additions of Sections 337(f) and 309(j)(2) to the Communications Act, the term "public safety radio services" in Section 309(j)(2)

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<sup>25</sup> / 47 U.S.C. § 309(j)(2).

“includes ‘private internal radio services’ used by utilities, railroads, metropolitan transit systems, pipelines, private ambulances, and volunteer fire departments. Though private in nature, the services offered by these entities protect the safety of life, health, or property and are not made commercially available to the public.”<sup>26</sup> While the Conference Report notes that the “public safety radio services” exemption described in this section is “much broader than the explicit definition for ‘public safety services’ contained in” Section 337(f)(1),<sup>27</sup> the Commission’s analysis and implementation of Section 309(j)(2) nevertheless provide a solid analytical model for the Commission’s reexamination of Section 337.

When the Commission adopted its rules implementing Section 309(j)(2), it determined as a threshold matter that because “[t]he statutory language provides that the exemption applies to ‘public safety radio *services*,’” the auction exemption “should be evaluated in terms of its application to particular services rather than to particular classes or groups of licensees within a service.”<sup>28</sup> In other words, the Commission would look at *how* the spectrum is being used in the aggregate within a particular band (*i.e.*, what services are being provided) rather than to the identity or nature of the entities using that spectrum band, or even the specific uses made by individual licensees.

The Commission further concluded that the public safety exemption would apply only to services in which the public safety uses described under Section 309(j)(2) “comprise the

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<sup>26</sup> / H.R. REP. NO. 105-217, 105<sup>th</sup> Cong., 1<sup>st</sup> Sess., at 572.

<sup>27</sup> / *Id.*

<sup>28</sup> / *Implementation of Sections 309(j)(2) and 337 of the Communications Act of 1934 as Amended*, WT Docket No. 99-87, Report and Order and Further Notice of Proposed Rulemaking, 15 FCC Rcd 22709, 22741 ¶ 66 (2000) (“*First Report and Order*” and “*Further Notice of Proposed Rulemaking*”) (emphasis in original).

*dominant* use of the spectrum,”<sup>29</sup> rather than requiring that such uses comprise the exclusive use of the spectrum. In particular, the Commission concluded that because utilities and others “do not use their frequencies exclusively for safety-related purposes, Congress could not have intended that entities using exempt spectrum use that spectrum exclusively for such purposes.”<sup>30</sup> As the Commission correctly noted, “Furthermore, it would be overly burdensome to require licensees to differentiate between, and use different frequencies for, pure public safety communications and business communications which may also serve a safety-related purpose.”<sup>31</sup>

The application of this same analysis to Section 337 further supports the understanding that Section 337(a) requires only that the Commission allocate 24 MHz of bandwidth in the 700 MHz band in such a way that the allocation, when viewed in the aggregate, will have, as its dominant use, communications by entities that have as their “sole and principal purpose” the protection of “the safety of life, health or property.” Under the analysis discussed above, Section 337 does not require the Commission to ensure that every licensee or every use of this spectrum is limited to such a purpose – only that the dominant purpose of the allocation is for services that have a sole or principal purpose to protect the safety of life, health, or property.

Indeed, the Commission cannot ensure that the 700 MHz public safety broadband network will be used exclusively for “protect[ing] the safety of life, health or property” even by entities that the Commission has already determined are eligible to use this network. As discussed below, many current and intended uses of “public safety” spectrum allocations by governmental agencies are *not* in fact for the “sole or principal purpose” of protecting safety of

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<sup>29</sup> / *First Report and Order*, 15 FCC Rcd at 22740 ¶ 64 (emphasis added).

<sup>30</sup> / *Id.*, 15 FCC Rcd at 22751 ¶ 85.

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

life, health or property, although these “non-public safety” uses do not diminish the availability of public safety spectrum for public safety purposes.

**C. The City of Charlotte’s Petition for Declaratory Ruling Demonstrates that Allowing Other Uses of the 700 MHz Public Safety Broadband Network is In the Public Interest**

On March 7, 2011, the City of Charlotte, North Carolina, filed a Petition for Declaratory Ruling (“Petition”) requesting clarification from the Commission as to the scope of activities that are permitted to be conducted by entities authorized to operate in the 700 MHz public safety broadband spectrum.<sup>32</sup> Specifically, Charlotte is requesting confirmation that once a state or local government entity establishes eligibility for licensing in the 700 MHz public safety allocation, it should not be limited in the types of personnel that may use the system for the day-to-day communications (*e.g.*, for public works, transportation, or even garbage collection). Charlotte argues that state and local governments presumptively have as their “sole or principal purpose” the protection of life, health and property, and therefore they should be allowed to use the 700 MHz spectrum for any activities conducted by their personnel whether or not they are police, fire or medical emergency first responders.

Charlotte states that the Commission “has properly left to individual public safety entities the responsibility of balancing their own internal communications requirements” and points out that “the Commission has actively promoted technology advances that permit increased public safety spectrum sharing and interoperability within and across jurisdictions without imposing limitations on the specific activities conducted on the spectrum.”<sup>33</sup> Charlotte further argues that Congress could not have intended to “reverse a growing trend toward increased sharing of public

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<sup>32</sup> / City of Charlotte Request for Declaratory Ruling, PS Docket No. 06-229 (filed March 7, 2011) (“Petition”).

<sup>33</sup> / *Id.* at 6.

safety systems” by “isolating” police, fire, and medical personnel on a system that could not be accessed by other users.<sup>34</sup> According to Charlotte’s Petition, if non-emergency personnel are prohibited from using the city’s 700 MHz system, it would either require wasteful government spending on duplicative systems or would make it cost-prohibitive for state and local governments to build a broadband network just for first responders.<sup>35</sup> As Charlotte stated, this “likely would mean that even first responders would not have broadband access since building a broadband network for their critical, but limited, operations exclusively would be beyond the financial capabilities of most jurisdictions even with grant support.”<sup>36</sup>

In addition, while not directly the subject of its Petition, Charlotte “confirms the Commission’s assessment” of a strong desire of many in the public safety community to include users such as utilities, public works, and others on their networks.<sup>37</sup> As an example, Charlotte states that “the safety of the City’s citizens would be greatly enhanced if private security personnel” at Duke Energy’s nuclear generating facilities “were permitted to access the broadband network Charlotte will deploy.”<sup>38</sup>

The City of McAllen, Texas, has filed a letter with the Commission fully supporting Charlotte’s Petition.<sup>39</sup> The City of Mesa, Arizona, has also filed comments with the Commission in support of Charlotte’s Petition.<sup>40</sup> In addition, and as discussed above, in a recent hearing

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<sup>34</sup> / *Id.* at 10.

<sup>35</sup> / *Id.* at 10.

<sup>36</sup> / *Id.* at 10.

<sup>37</sup> / *Id.* at 11.

<sup>38</sup> / *Id.* at 11.

<sup>39</sup> / City of McAllen *Ex Parte* Letter, PS Docket No. 06-229 (filed April 4, 2011).

<sup>40</sup> / City of Charlotte Request for Declaratory Ruling, PS Docket No. 06-229, Comments of the City of Mesa, Arizona (filed April 7, 2011).

before the US House of Representatives Committee on Homeland Security, Chief Jack Parow, President and Chairman of the Board of the International Association of Fire Chiefs, testified, “Public safety expects to enter into public-private partnerships. We will work with state, county and local government agencies, federal partners, electric and gas utilities and others who respond to emergencies such as highway and water agencies.”<sup>41</sup>

Thus, even government agencies and public safety services that are presumptively eligible to use the 700 MHz public safety band plainly envision and anticipate that this allocation can and should be used for many purposes that, while individually not meeting the specific statutory language of Section 337(f), nevertheless serve an important public purpose while ensuring that the principal use of the spectrum remains the protection of the safety of life, health, and property.

#### **IV. AN APPROPRIATE FRAMEWORK FOR SHARED PUBLIC/PRIVATE SYSTEMS WILL PROMOTE SPECTRAL EFFICIENCY AND NETWORK DEPLOYMENT WHILE ENSURING THAT THE SPECTRUM REMAINS AVAILABLE FOR THE PROTECTION OF SAFETY OF LIFE, HEALTH, OR PROPERTY**

In the *Fourth FNPRM*, the Commission raises several questions regarding how, as a practical matter, utilities and other CI entities could be permitted to use the 700 MHz public safety broadband network while ensuring that such use of the network is consistent with the requirements of Section 337.<sup>42</sup> As discussed below, Southern submits that these issues can be largely addressed through guidelines or contractual arrangements developed by the entities that are sharing the network in each locality or region. Southern further submits that the Commission’s decision to require all systems and equipment deployed in the 700 MHz public

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<sup>41</sup> / See note 11, *supra*.

<sup>42</sup> / *Fourth FNPRM* at ¶¶ 136 – 140.

safety broadband spectrum to use LTE technology will enable the parties to a network sharing agreement to establish a prioritization scheme appropriately tailored to the public safety needs and priorities in the locality where the parties operate.

Finally, Southern submits that public utilities and other CI entities seeking to enter into a public safety network sharing agreement should be able to do so without being required to enter into a separate agreement or contract with every eligible local public safety agency in the utility's service area. Rather, in order to ensure that the consent process does not stand as a barrier to system construction or operation, a potential utility or CI partner should be able to obtain the required consent from a single entity with the appropriate eligibility and/or authority for the entire geographic area in which the utility or CI entity is seeking access to the spectrum.

**A. Possible Limits Regarding Usage Other Than For “Public Safety Services”**

The Commission has posed a series of questions regarding ways in which shared usage of the 700 MHz public safety broadband network by “non-public safety services” could be permitted while ensuring that requirements of Section 337 are met. First, the Commission asks whether the “sole or principal purpose” requirement of Section 337 would be satisfied if the Commission were to adopt a limit on the amount of non-public safety service usage permitted, “such that the principal purpose of the network or networks remained for public safety purposes.”<sup>43</sup> The Commission further asks what limits it could place on usage by non-public safety services and how it could measure such usage.<sup>44</sup>

As an initial matter, Southern recommends that, in order to avoid potential confusion, the Commission should avoid use of the term “secondary” when referring to non-public safety use of

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<sup>43</sup> / *Fourth FNPRM* at ¶ 136.

<sup>44</sup> / *Id.*

the 700 MHz broadband network. Specifically, the term “secondary” is typically used in the context of spectrum matters as a term of art to refer to services that (1) must not cause interference to a “primary” service and (2) must accept any interference received from a primary service.<sup>45</sup> Because the entire concept of shared public safety/public utility systems is based on the parties’ sharing not only of spectrum, but also infrastructure and perhaps even equipment, Southern is concerned that use of the terms of art “primary” and “secondary” in the context of 700 MHz sharing could lead to substantial confusion and even dispute. If any shared access user is always considered to be “secondary,” then such a user could be effectively forced from the shared system entirely, regardless of the priority level to which the user is entitled under the terms of the sharing agreement or the extent of their role in funding, constructing, and operating the shared 700 MHz radio system.

With respect to the Commission’s specific questions regarding possible limits on other services, Southern submits that the essential character of this spectrum as “public safety” spectrum can be maintained through the guidelines or contractual arrangements that are developed by entities sharing the network in each locality or region. Accordingly, one of the most important things that the entities will need to develop as part of their sharing agreements will be the applicable protocols for prioritizing traffic on the system. Through the process of prioritizing traffic, as discussed in more detail in Section IV.C. below, the principal use of the allocation of this spectrum will remain for public safety services.

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<sup>45</sup> / See 47 C.F.R. § 2.104(d)(3) (defining “secondary services” for purposes of frequency allocation).

Moreover, it would be spectrally inefficient to limit shared use of the network to some fixed percentage of network capacity, or to state that certain users would always be considered “secondary” if there is capacity on the system and it is being unused.

The establishment of a prioritization plan by the parties to a sharing agreement will also eliminate any need for the Commission to consider how use of the 700 MHz public safety broadband network should be measured, since the prioritization process itself will provide the Commission with sufficient confidence that the principal purpose of this spectrum remains for public safety services. Thus, there will be no need for the Commission to monitor or measure network usage.

**B. Requirements for a “Quasi-Public Safety Focus” or Other Nexus to Public Safety**

The Commission asks whether potential shared usage of the 700 MHz public safety spectrum should be required to have “some quasi-public safety focus or some other public safety nexus” in order to qualify for access.<sup>46</sup> While a prioritization plan developed by the parties to a shared 700 MHz radio system (as discussed below) should sufficiently ensure that the principal purpose of use of the spectrum is for public safety services, the Commission could add a further layer of certainty by adopting a requirement that the system only be used by entities for their own internal communications requirements and not for the provision of commercial communications services to the public.

In determining what constitutes a “quasi-public safety focus” or a sufficient nexus to public safety, Southern recommends that the Commission look to the types of services and

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<sup>46</sup> / *Fourth FNPRM* at ¶ 136.

entities that Congress sought to benefit through the adoption of the “public safety radio service” auction exemption in Section 309(j)(2) of the Communications Act.

Specifically, as noted by the Commission, the Conference Report for the Balanced Budget Act of 1997 states that the term “public safety radio services” in Section 309(j)(2) “includes ‘private internal radio services’ used by utilities, railroads, metropolitan transit systems, pipelines, private ambulances, and volunteer fire departments.”<sup>47</sup> In determining why Congress intended entities such as utilities and transit systems to be included in the scope of the “public safety radio services” definition, the Commission concluded, “Although the primary functions of these organizations is not necessarily to provide safety services, 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>48</sup> In the case of utilities, for example, the Commission stated that “utility companies need to possess the ability to coordinate critical activities during or following storms or other natural disasters that disrupt the delivery of vital services such as provision of electric, gas, and water supplies.”<sup>49</sup>

The Commission concluded that the types of “non-public safety” entities Congress intended to benefit through Section 309(j)(2) have two common characteristics: (1) they have an infrastructure used primarily for the purpose of providing essential public services to the population at large; and (2) the reliability and availability of the communications systems for these entities “is necessary for them, as part of their regular mission, to prevent or respond to a

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<sup>47</sup> / H.R. REP. NO. 105-217, 105<sup>th</sup> Cong., 1<sup>st</sup> Sess., at 572.

<sup>48</sup> / *First Report and Order*, 15 FCC Rcd at 22746 ¶ 76.

<sup>49</sup> / *Id.*

disaster or crisis affecting the public at large.”<sup>50</sup> The Commission then stated that electric utilities and metropolitan transit systems are two examples of the types of entities that meet both prongs of this two-part standard.<sup>51</sup>

Because both Congress and the Commission have already provided such clear definitions and descriptions of the types of entities that should be considered to have at least a “quasi-public safety focus” or nexus to public safety, the Commission should now look to this valuable guidance in determining the types of entities whose shared use of the 700 MHz public safety broadband network would both support the mission of “traditional” public safety while ensuring that the principal use of the network is the protection of the safety of life, health, and property.

### **C. Prioritization of Services and Communications**

The Commission asks whether, if shared usage is allowed, the traffic of shared access users should be afforded a lower priority and, if so, what requirements and exceptions regarding prioritization would be appropriate.<sup>52</sup>

Southern submits that prioritization should be a matter for the parties to a shared 700 MHz radio system to develop and agree to contractually amongst each other. While the Commission could establish some broad, general guidelines that would give the parties guidance (and which could serve as a default), the Commission should refrain from attempting to define any specific priorities or prioritization plan in detail. The relevant priorities and needs of public safety services and other users of the shared radio system will vary from area to area, as well as in accordance with the types of entities that are using or seeking to use the shared system. For

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<sup>50</sup> / *Id.* at 22747 ¶ 77.

<sup>51</sup> / *Id.* ¶ 78.

<sup>52</sup> / *Fourth FNPRM* ¶ 136.

example, and as demonstrated by the City of Charlotte’s Petition, some municipal governments may intend to use the 700 MHz radio system to support *all* municipal services, not just those services that are *per se* public safety services. In such cases, there would need to be sufficient flexibility regarding prioritization to ensure that relatively low-priority government uses (*e.g.*, garbage collection) are not assigned a higher priority than certain non-government uses, such as private ambulance or electric utility services.

In addition, as the Commission has recognized elsewhere in the *Fourth FNPRM*, it may not always be appropriate to define or assign priority solely on the basis of the user’s role or priority.<sup>53</sup> Rather, the appropriate priority for use of the network may also depend on the type of application; *e.g.*, voice, streaming video, etc.<sup>54</sup> As discussed by the Commission in the *Fourth FNPRM*, the LTE platform provides priority mechanisms that allow for prioritization based on application type as well as user type.<sup>55</sup> A technical study recently submitted in this docket by Sprint Nextel and T-Mobile further describes in detail how the prioritization capabilities of LTE provide ample flexibility for users of a shared 700 MHz radio system to develop a prioritization plan that is most appropriately tailored to the specific needs, requirements, and priorities of the area where the system has been deployed, as well as those of the shared system’s users.<sup>56</sup>

In order to ensure that the prioritization plan developed by the parties to a shared 700 MHz radio system sufficiently ensures that the principal purpose of use of the spectrum is for public safety services, the Commission could adopt a general framework or general guidelines

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<sup>53</sup> / See *Fourth FNPRM* at ¶¶ 43 – 46.

<sup>54</sup> / *Id.* at ¶ 45.

<sup>55</sup> / *Id.* at ¶ 46.

<sup>56</sup> / Sprint Nextel and T-Mobile Joint *Ex Parte* Presentation (filed March 2, 2011) (submitting Roberson and Associates, LLC, *Public Safety Access to Shared Commercial Networks*, March 1, 2011 (“Roberson Report”)).

based on its long-standing Telecommunications Service Priority (TSP) system and Priority Access Service (PAS).<sup>57</sup> Both of these systems establish prioritization hierarchies for the provisioning and restoration of telecommunications services during declared emergencies. The types of individuals and entities eligible for prioritization under TSP/PAS include not just “traditional” public safety, but also executive leadership, public services and public utilities, and other government agencies, services, and responders whose services are considered essential in times of emergency. For example, under the PAS system, top priority for access to commercial mobile wireless networks is given to executive leadership and policymakers (Priority 1) and to disaster response and military command and control (Priority 2), followed by public safety and law enforcement (Priority 3).<sup>58</sup> The PAS system next assigns priority to users responsible for managing public works and utility infrastructure, including power utilities (Priority 4), followed by disaster recovery operations (Priority 5).<sup>59</sup> A prioritization plan for a shared 700 MHz radio system that is substantially similar to the one established through the PAS system would therefore presumptively ensure that the principal use of the spectrum would be for public safety services. As noted above, however, Southern believes that specific priorities should be established at the local level, taking into account the mix of users and applications and the needs of the local area.

Finally, Southern emphasizes that “priority access” does not necessarily equal “preemption,” particularly on the LTE platform. With LTE, network traffic and resources can be dynamically managed in such a way that the most effective method of prioritization involves

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<sup>57</sup> / 47 C.F.R. Part 64, App. A (TSP) and App. B (PAS).

<sup>58</sup> / 47 C.F.R. Part 64, App. B.

<sup>59</sup> / *Id.*

reducing the resources available to lower priority users while still keeping the functionality of the lower-priority service intact, rather than cutting off or dropping a lower-priority user's access to the network entirely.<sup>60</sup> Although preemption may be necessary under extenuating circumstances, any preemption on a shared 700 MHz system should occur only in accordance with the prioritization plan established through the agreement of the system users.

**D. Consent for Use of the 700 MHz Public Safety Broadband Network**

The Commission seeks comment on how it may ensure that nongovernmental entities have obtained the necessary consent to use the 700 MHz public safety spectrum.<sup>61</sup>

In order to provide sufficient incentive for a utility or other nongovernmental entity to invest in a shared system that would enable local public safety services to use the 700 MHz broadband spectrum to protect the safety of life, health, and property, the consent process should not stand as a barrier to system construction or operation. Moreover, the nongovernmental partner in the shared system must be given sufficient protections and guarantees regarding its ongoing access to the network in order to justify its investment in making the system possible.

Southern recommends that consent or authorization should come from an entity that would, in its own right, be eligible to use or share the 700 MHz public safety broadband network in the particular area to be covered by the shared system. Southern further recommends that a potential nongovernmental partner in a shared system be able to obtain the required consent from a single entity with the appropriate eligibility and/or authority for the geographic area in which the nongovernmental partner seeks to use the shared system, whether at the regional or state level.

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<sup>60</sup> / *See, e.g.*, Roberson Report at 37.

<sup>61</sup> / *Fourth FNPRM* at ¶ 137.

In the case of an electric utility, for example, the utility’s service area will generally cover the jurisdictions of numerous government and public safety agencies, as well as agencies with overlapping jurisdictions. Requiring the utility to obtain the consent of each and every public safety eligible agency covered by the shared system may make it too difficult for any agreement to be reached or for any shared system to be built. In addition, if even one of these agencies were to refuse or later revoke its consent, the utility’s ability to use the network could be compromised. Thus, a utility would have little – if any – incentive to make any investment in or contribution to a shared 700 MHz system.

**E. A Shared Public Safety/Public Utility System Would Not Be “Commercially Available to the Public”**

A shared public safety/public utility 700 MHz radio system would satisfy the requirement that such a system not be made “commercially available to the public,” regardless of any access fee or in-kind contribution that may be involved between the parties.<sup>62</sup> The statutory requirement in Section 337(f)(1)(C) that services using the 700 MHz public safety spectrum not be “made commercially available to the public by the provider” is intended to prohibit the use of this network to provide wireless telecommunications services to the public for a fee – *i.e.*, the network cannot be used by commercial wireless carriers to serve their customers – not to prohibit fees or other contributions related to the construction, maintenance, and operation of a shared network used to meet the network users’ private internal communications needs.

This interpretation is supported by the Commission’s prior interpretation of the same statutory phrase – “not made commercially available to the public” – for purposes of the auction exemption for public safety radio services under Section 309(j) of the Act. Specifically, the

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<sup>62</sup> / *Id.* at ¶ 138.

Commission properly concluded that this phrase “means that the service is not provided with the intent of receiving compensation, and is not available to a substantial portion of the public.”<sup>63</sup>

The Commission stated that this definition is consistent with its 1994 Order on commercial mobile radio services, in which the Commission concluded that if a service is “provided exclusively for internal use or is offered only to a significantly restricted class of eligible users,” then the service is not made available to a substantial portion of the public, citing as an example the public safety radio service.<sup>64</sup>

Furthermore, it is increasingly evident that public/private partnerships will be essential in funding the implementation of the 700 MHz public safety broadband network. As discussed above, when Congress adopted Section 337, it fully expected and anticipated the development of shared public safety/public utility radio systems in the 700 MHz public safety band. Moreover, the Commission itself expressly intended a public/private partnership involving fees or in-kind contributions for access to the 700 MHz public safety band when it established its auction rules for the 700 MHz D Block. If Section 337 were to be interpreted as prohibiting any and all financial relationships that might be entered into for sharing the use of this network, however, then there is no way that a public/private partnership could realistically be possible.

**F. The Commission Should Not Impose Preemption Requirements or Usage Limits**

There is no need for the Commission to require that shared access users of the 700 MHz public safety broadband network only be permitted access to the network on a secondary or

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<sup>63</sup> / *First Report and Order*, 15 FCC Rcd at 22750 ¶ 82.

<sup>64</sup> / *Id.* at 22749 ¶ 82 (citing *Implementation of Sections 3(n) and 332 of the Communications Act, Regulatory Treatment of Mobile Services*, GN Docket No. 93-252, Second Report and Order, 9 FCC Rcd 1411, 1427 ¶ 43 (1994)).

preemptible basis, nor is there any need for the Commission to impose usage limits.<sup>65</sup> As discussed above, traffic and resources on an LTE platform – such as the one required by the Commission for the 700 MHz public safety broadband network – can be dynamically managed in such a way that the most effective method of prioritization involves reducing the resources available to lower priority users while still keeping the functionality of the lower-priority service intact, rather than cutting off or dropping a lower-priority user’s access to the network entirely.<sup>66</sup>

Utility interest in investing in shared public safety/public utility 700 MHz radio systems is based on the potential such systems offer to share in a robust radio network not subject to the limitations of commercial networks for the carrying of higher priority, mission-critical traffic that is essential to utility operations, including the safe, reliable, and efficient delivery of electric power to the public and response to public emergencies. However, if electric utility use of the network were always subject to preemption, the network would not be suitable for any utility communications other than low priority traffic that could be carried instead on existing commercial networks. Accordingly, utilities would have no incentive to enter into partnerships with public safety for the deployment and operation of shared 700 MHz radio systems, thus depriving public safety and local government agencies around the country of a key source of funding and expertise and delaying the implementation of a 700 MHz public safety broadband network by years, if not by decades.<sup>67</sup>

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<sup>65</sup> / *Fourth FNPRM* at ¶ 140.

<sup>66</sup> / *See, e.g.,* Roberson Report at 37.

<sup>67</sup> / In addition, a utility not only needs to be able to justify internally the significant investment necessary to implement a shared 700 MHz system, but the utility must also be able to justify it to the state public utility commission whose approval for such a significant investment may be required.

Although it is possible that, under extreme circumstances, full preemption where access to the network is cut off entirely may be necessary, any preemption on a shared 700 MHz system should occur only in accordance with the prioritization plan established through the agreement of the system users.

Similarly, there is no need for the Commission to impose up-front usage limits on these systems in order to preserve capacity for “traditional” public safety because the LTE platform enables capacity to be allocated dynamically among the users of the network in accordance with the prioritization plan developed by agreement between the parties. Accordingly, the shared system’s prioritization plan will ensure that there will be sufficient capacity available at all times on the network for “traditional” public safety services.

**G. Oversight of Shared Public Safety/Public Utility 700 MHz Systems**

Finally, the Commission requests comment on a number of questions related to the oversight of access to the 700 MHz public safety band on a shared-use basis.<sup>68</sup> Southern submits that management and oversight of shared use of the 700 MHz public safety band should be as uniform and consistent as possible in order to encourage investment in shared 700 MHz radio systems and promote the implementation of the nationwide interoperable 700 MHz public safety broadband network.

First, Southern recommends that, as with consent to use of the spectrum, potential nongovernmental partners in a shared 700 MHz system should be able to negotiate and conclude an agreement with a single entity authorized to act and enter into binding agreements on behalf of all public safety service-eligible entities in the area where the nongovernmental partner is seeking spectrum access. To the extent negotiation and agreement with a single entity is not

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<sup>68</sup> / *Fourth FNPRM* at ¶ 140.

possible for jurisdictional or other reasons, the number of authorized entities with which the potential nongovernmental partner must negotiate should be as small as possible in order to provide consistency and certainty regarding the potential partner's access to and ability to use the spectrum and to receive the benefits of its investment in the system.

In addition, Southern recommends that all monitoring and enforcement of shared use activities in the 700 MHz public safety band be handled by the Commission as the nation's expert agency on technical, operational, and policy matters for communications and communications systems. Vesting monitoring and enforcement of shared use of this band with the Commission would also ensure the uniformity necessary to promote nationwide interoperability as well as provide greater certainty for all parties, both public and private.

## V. TECHNICAL ISSUES

Southern supports the Commission's tentative conclusion to allow the operation of fixed services in the 700 MHz public safety band,<sup>69</sup> but agrees with the Utilities Telecom Council ("UTC") that the Commission should not restrict "ancillary" fixed operations in this band to operation on a secondary, non-interference basis only.<sup>70</sup>

As discussed above, utilities' interest in entering into shared use arrangements for the 700 MHz public safety broadband network is the network's potential to support critical command-

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<sup>69</sup> / *Fourth FNPRM* at ¶ 129.

<sup>70</sup> / *See Requests for Waiver of Various Petitioners to Allow the Establishment of 700 MHz Interoperable Public Safety Wireless Networks*, PS Docket No. 06-229, Petition for Reconsideration of the Utilities Telecom Council (filed Jan. 11, 2011) ("UTC Petition"). Although the Commission uses the term "ancillary" in the *Fourth FNPRM*, Southern assumes for purposes of these comments that the Commission has tentatively concluded that fixed operations should only be permitted on a secondary – rather than "ancillary" – basis. However, as discussed in Section IV.A. of these comments, the terms "ancillary" and "secondary" are not synonymous and the use of these terms interchangeably could lead to confusion for any potential users of the 700 MHz band, including public safety users.

and-control, monitoring, and other functions that form a key element of the Smart Grid and which will enhance the safety, reliability, and efficiency of the delivery of electric power to the public. Many of these applications, however, rely on communications between fixed points on the electric grid such as substations, relays, and so forth. If fixed operations in the 700 MHz band were to be permitted on a secondary basis only, these systems would be vulnerable to interference, thus significantly reducing their suitability for critical utility communications and discouraging potential utility investment in shared 700 MHz systems with public safety.

Southern also submits that the Commission need not be concerned that mixed fixed and mobile use “could introduce unacceptable interference, especially at the cell edge, that will impact the network performance.”<sup>71</sup> As UTC noted in its recent Petition, fixed and mobile operations would be part of the same LTE system and thus would be designed from the outset to operate together. Accordingly, the earlier concerns expressed by the Commission about possible interference are inapplicable.<sup>72</sup>

## **VI. CONCLUSION**

As discussed these comments, the inclusion of utilities and other critical infrastructure entities on the 700 MHz public safety broadband network is overwhelmingly in the public interest and is well within the Commission’s statutory authority and discretion. Accordingly, for the reasons set forth above, the Commission should take action to permit and facilitate shared public safety/public utility use of the 700 MHz public safety broadband network.

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<sup>71</sup> / *Fourth FNPRM* at ¶ 129.

<sup>72</sup> / UTC Petition at 3.

**WHEREFORE, THE PREMISES CONSIDERED**, Southern Company Services, Inc.  
respectfully requests the Commission to take action in this docket consistent with the views  
expressed herein.

Respectfully submitted,

**SOUTHERN COMPANY SERVICES, INC.**

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