

**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
)	
)	

To: The Commission

REPLY COMMENTS OF SOUTHERN COMPANY SERVICES, INC.

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TABLE OF CONTENTS

I. INTRODUCTION AND SUMMARY..... 1

II. THERE IS BROAD SUPPORT FOR INCLUDING UTILITIES AS USERS OF THE 700 MHZ PUBLIC SAFETY BROADBAND NETWORK..... 3

III. GREATER CERTAINTY IS REQUIRED REGARDING PRIORITIZATION AND PREEMPTION ON THE 700 MHZ PUBLIC SAFETY BROADBAND NETWORK..... 7

 A. “Secondary” Use of the 700 MHz Public Safety Broadband Network 8

 B. Prioritization and Preemption 10

IV. THE COMMENTS IN THIS PROCEEDING CONFIRM THAT THE COMMISSION HAS SUFFICIENT AUTHORITY TO PERMIT USE OF THE PUBLIC SAFETY BROADBAND NETWORK BY UTILITIES 12

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Southern Company Services, Inc. (“Southern”), on behalf of itself and its operating affiliates, hereby submits its reply comments in response to the Federal Communications Commission’s request for further comment on the implementation of a nationwide interoperable public safety broadband network.¹

I. INTRODUCTION AND SUMMARY

The comments filed in response to the *Fourth FNPRM* demonstrate widespread support for allowing utilities to use the 700 MHz public safety broadband network to support their operations in providing essential utility services to the public and to coordinate common activities and joint response with public safety during emergency situations. These comments also make clear that utility access to the 700 MHz public safety broadband spectrum will further

¹ / *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*”).

serve the public interest by enabling public safety and public utilities to partner in the deployment and operation of 700 MHz broadband systems, thus promoting the more rapid and certain deployment of the 700 MHz public safety broadband network.

Nevertheless, Southern is concerned that further discussion and clarification may be necessary regarding the precise nature of utility access to this spectrum. Accordingly, in conjunction with the clarifications provided herein, Southern strongly urges the Commission and all interested stakeholders to engage in an active, open, and ongoing dialogue on these issues.

First, Southern remains concerned over the use of the term “secondary” to refer to certain potential uses of the 700 MHz public safety spectrum. As discussed herein, the term “secondary” has a specific, defined regulatory meaning under the Commission’s spectrum rules that, if applied in the context of access to the 700 MHz public safety spectrum, would effectively undermine any potential public/private partnerships for the funding, deployment, and operation of 700 MHz public safety radio systems. Southern therefore urges the Commission to eliminate any potential confusion by either avoiding the use of the term “secondary” in this proceeding altogether or by explicitly clarifying (and codifying) what is meant by “secondary” with respect to use of the 700 MHz public safety band.

Southern would also like to clarify that utilities would not be able to accept “secondary” status across the board for *all* of their internal communications on the 700 MHz network, particularly with respect to high priority communications needs that must be non-preemptible (such as the monitoring and control of substations, etc.). Nevertheless, there are many utility communications requirements that would generally be of medium or lower priority, and a utility might be willing to accept the potential for preemption of such communications in favor of higher priority public safety communications in accordance with the prioritization plan

established by the system users. Moreover, utilities recognize the possibility that, under very extreme circumstances, preemption of even the highest priority utility communications may be necessary. Southern believes that these are all issues that can and should be addressed as part of a prioritization plan established by the users of the shared 700 MHz system that makes clear the manner in which any such preemption may occur, as well as the potential consequences that any such preemption could have on first responder capabilities or on public safety in general.

Finally, the comments in this proceeding overwhelmingly confirm that the Commission has ample statutory authority to permit the use of the 700 MHz public safety broadband spectrum by utilities and other critical infrastructure (“CI”) entities. The Commission should therefore exercise this authority to formally enable utility access to this band and expedite the deployment of the 700 MHz public safety broadband network.

II. THERE IS BROAD SUPPORT FOR INCLUDING UTILITIES AS USERS OF THE 700 MHZ PUBLIC SAFETY BROADBAND NETWORK

The comments filed in response to the Commission’s *Fourth FNPRM* demonstrate widespread agreement among public safety, state and local governments, utilities, and others with Southern’s position that including utilities and other critical infrastructure (“CI”) entities on the 700 MHz public safety broadband network is overwhelmingly in the public interest.²

² / Comments of Southern Company Services at 3 – 11; *See also* Comments of APCO at 9 – 10; Comments of the Public Safety Spectrum Trust (PSST) at 22 – 23; Comments of the National Public Safety Telecommunications Council (NPSTC) at 21 – 22; Comments of the Minnesota Department of Public Safety at 15 – 16; Comments of the State of New Mexico at 7 – 15; Comments of the City of Mesa at 9; Comments of the City of Baton Rouge at 3 – 4; Comments of the Utilities Telecom Council (UTC); Comments of the Edison Electric Institute (EEI); Comments of SCANA; Comments of CLECO; Comments of NV Energy; Comments of Alcatel-Lucent at 24 – 28; Comments of Harris Corp. at 32 – 34 and 37 – 39; Comments of IPWireless at 36 – 37.

The Association of Public-Safety Communications Officials International (“APCO”) – one of the leading voices for the public safety community – stated that it agrees with “the vast majority of public safety organizations that utilities and similar entities can play a critical role in emergency response activities” and that “[p]ublic safety interoperability with such entities is essential.”³ According to APCO, “[M]uch of what utilities do does involve the safety of life, health or property, and interoperability with utilities is often essential for the protection of life, health or property.”⁴ APCO therefore “believes that it would be appropriate under current law for government entities authorized ... to operate in the 700 MHz broadband spectrum to permit utilities to utilize their systems on a ‘secondary basis.’”⁵

The Public Safety Spectrum Trust (“PSST”) – the Commission’s designated licensee for the 700 MHz public safety nationwide broadband spectrum – joined APCO in recommending that network user eligibility for the 700 MHz public safety broadband network be expanded beyond “traditional” public safety to include utilities, transportation, and other critical infrastructure entities.⁶ Similar recommendations were also made by the National Public Safety Telecommunications Council (“NPSTC”), the Los Angeles Regional Interoperable Communications System Authority (“LA-RICS Authority”), and the Minnesota Department of Public Safety (“Minnesota DPS”).⁷

³ / Comments of APCO at 9.

⁴ / *Id.* at 10.

⁵ / Comments of APCO at 10.

⁶ / Comments of PSST at 22.

⁷ / Comments of NPSTC at 22; Comments of LA-RICS Authority at 5 – 6; Comments of the Minnesota DPS at 15 – 16.

The Minnesota DPS in particular urged the Commission “to work to the fullest extent legally practicable” to broaden the definition of eligible users of the 700 MHz public safety band “to include all government users, as well as government and non-government partners who share a common interest in the public good ... [such as] utilities, transit authorities, municipalities, and various state and Federal government agencies.”⁸ Based on the experience gained through the deployment and operation of Minnesota’s statewide trunked radio system (known as “ARMERS”), the Minnesota DPS stated that “[p]artnerships with non-public safety or non-government entities are critical to the success of” the 700 MHz public safety broadband network and that, without partners outside of public safety, “it will be difficult – or impossible – to justify or control the expense of building such a network in Minnesota.”⁹

Similar concerns regarding the financial and logistical demands of deploying and operating a 700 MHz public safety broadband system were expressed by several recipients of and applicants for waivers for early deployment of 700 MHz systems. For example, after studying responses to its Request for Proposals for a 700 MHz public safety system, the City of Mesa determined that “building, operating, and maintaining a 700 MHz LTE broadband network exclusively for ‘first responders’ ... would be far beyond the financial justification and capabilities of most jurisdictions even with grant support,” whereas “permitting other public service users, such as electric, water and gas utilities ... will make such a private network economically feasible.”¹⁰ A group of state and local governments and agencies filing jointly added, “If the Commission wants to help operators sustain the network after deployment, it

⁸ / Comments of the Minnesota DPS at 15.

⁹ / Comments of the Minnesota DPS at 15 – 16.

¹⁰ / Comments of the City of Mesa at 9.

should interpret Section 337 as broadly as possible to ensure that operators can add CII to their subscriber rolls.”¹¹

The State of New Mexico not only noted the challenges imposed by the uncertainty of funding for 700 MHz public safety systems, but also described the similar communications service needs of public safety and utilities, such as the need for a hardened network “providing reliable ubiquitous coverage that will not fail during weather emergencies and natural or man-made disasters.”¹²

Significantly, several commenters described for the Commission real-world examples of successful public/private partnerships that have enabled the deployment of regional and statewide wireless networks utilized cooperatively by state and local governments and agencies, public safety, utilities (including privately-owned utilities), and other public or “quasi-public” institutions and entities.¹³ The success of these systems – such as the Palmetto 800 system in the Carolinas – conclusively demonstrate that public safety, government agencies, and utilities are fully capable of operating together in the same frequency band and even on the same network, just as they would on the 700 MHz public safety broadband network.¹⁴ Moreover, Palmetto 800 and similar systems conclusively demonstrate that public safety communications capabilities –

¹¹ / Joint Comments of Certain Members of the PSST Operator Advisory Committee at 10 – 11 (signatories to these Joint Comments included state and municipal governments and agencies in Arizona, Delaware, the District of Columbia, Florida, Iowa, Oregon, Texas, Virginia, and Washington); *See also* Comments of the City of Baton Rouge at 3.

¹² / Comments of the State of New Mexico (filed Oct. 15, 2010) at 8 – 9. The State of New Mexico explicitly incorporated its October 15, 2010 comments as part of its comments on the *Fourth FNPRM*. *See Id.* at 9.

¹³ / *See* Comments of SCANA at 14 – 20 (describing the “Palmetto 800” shared 800 MHz system serving South Carolina, North Carolina, and Georgia); Comments of NV Energy at 1 – 2 and 7 – 8 (describing the Nevada Shared Radio System); Comments of the Minnesota DPS (discussing the “ARMER” statewide trunked radio system).

¹⁴ / *See* Comments of SCANA at 14 – 20.

including emergency response for the protection of the safety of life, health and property – are in no way diminished but rather are substantially enhanced by such shared use of spectral and network infrastructure resources.

Accordingly, the Commission should take action to formally permit access to and use of the 700 MHz public safety broadband spectrum by utilities and other CI entities and facilitate the more rapid and certain deployment of the 700 MHz public safety broadband network.

III. GREATER CERTAINTY IS REQUIRED REGARDING PRIORITIZATION AND ON THE 700 MHZ PUBLIC SAFETY BROADBAND NETWORK

Although there is widespread general support for including utilities as users of the 700 MHz public safety broadband network, several of the comments appear to present differing – even contradictory – views on what the nature of utility access to this spectrum should be. Southern believes that, at their core, the visions Southern and other utility and public safety commenters have for utility use of the 700 MHz band are substantially similar. However, Southern is also concerned that misunderstandings and misinterpretations of the various parties' positions could obscure how much these parties have in common and could result in policy decisions or regulations that inadvertently hinder or thwart the very goals they are intended to achieve.

Therefore, in addition to providing below further clarification of its positions, Southern strongly encourages an active, open, and ongoing dialogue between and among the Commission and all of the various stakeholders in order to address potential concerns and develop a sound path forward to ensure that the 700 MHz public safety broadband network can be deployed as expeditiously as possible and put to its best possible use in service of the public interest.

A. “Secondary” Use of the 700 MHz Public Safety Broadband Network

Southern is concerned that the imprecise use in this proceeding of certain terms that have specific and well-defined meanings under the Commission’s regulations – particularly the term “secondary” – has already created substantial and unnecessary confusion that, if not addressed, could serve as a significant obstacle to use of the 700 MHz band by utilities and similar entities. The result of this confusion would be to discourage rather than to promote the more rapid and certain deployment of the 700 MHz public safety broadband network, thus thwarting a priority policy goal of the Commission.

In the *Fourth FNPRM*, the Commission repeatedly uses the term “secondary” to refer to potential uses of the 700 MHz public safety broadband spectrum that might not necessarily meet the definition in Section 337 of the Communications Act of the “principal” purpose of this band¹⁵ – *i.e.*, to protect the safety of life, health and property – and this term has been used in a similar manner by various commenters.¹⁶ However, as Southern explained in its initial comments, the term “secondary” has a specific regulatory meaning under the Commission’s rules that, if applied in the context of access to the 700 MHz public safety spectrum, would effectively undermine any potential public/private partnerships for the funding, deployment, and operation of 700 MHz public safety radio systems.¹⁷

Specifically, in the context of spectrum matters, the term “secondary” is a defined term in the Commission’s rules that explicitly refers to services that (1) must not cause interference to a

¹⁵ / *Fourth FNPRM* at ¶¶ 134 – 140.

¹⁶ / *See, e.g.*, Comments of APCO at 10 – 11; Comments of LA-RICS Authority at 5 – 6; Comments of the State of New Mexico (filed Oct. 15, 2010) at 2 and 7.

¹⁷ / Comments of Southern Company Services at 22 – 23.

“primary” service and (2) must accept any interference received from a primary service.¹⁸

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 strongly reiterates its concern that the use of the term of art “secondary” in the context of access to the 700 MHz band 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. Accordingly, utilities would have no incentive to enter into partnerships with public safety for the deployment and operation of shared 700 MHz radio systems,¹⁹ 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.

This definitional problem has also been flagged by the Minnesota DPS, which stated:

Finally, it is not helpful to distinguish between a “primary” and “secondary” user of an LTE network under the Commission’s historical definition of such users [*citing* 47 C.F.R. § 2.104]. The Commission’s rules restrict the secondary user on the basis of whether the secondary user produces harmful interference to the primary user. However, in a shared LTE network, the secondary user produces *congestion*, not *interference*. Problems of congestion may be solved, in theory, by network management practices such as priority, QoS, and remote stun/kill.²⁰

¹⁸ / See 47 C.F.R. § 2.104(d)(3) (defining “secondary services” for purposes of frequency allocation).

¹⁹ / In addition, as Southern noted in its initial comments, 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.

²⁰ / Comments of the Minnesota DPS at 15 (emphasis in original).

Even if the Commission and other parties intend the use of the term “secondary” to refer to questions of prioritization rather than interference, this is still a matter of regulating the use of and access to spectrum – an area where the term “secondary” already has a clearly defined regulatory meaning. The Commission should therefore either avoid the use of the term “secondary” in the context of this proceeding altogether²¹ or should explicitly clarify (and codify) what is meant by “secondary” with respect to use of the 700 MHz public safety band.

B. Prioritization and Preemption

To the extent the Commission and other parties intend the term “secondary” to refer to prioritization or preemption, Southern hereby clarifies that utilities would not be able to accept such “secondary” status across the board for *all* of their internal communications on the 700 MHz network.

As Southern explained in its initial comments, utilities’ 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.²² If electric utility use of the network were always subject to preemption, the network would not be suitable for any utility communications other than very low priority traffic that could be carried instead on existing commercial networks, and thus utilities would have no

²¹ / For example, at least one commenter has used the term “complementary” (rather than “secondary”) to refer to use of the spectrum that may not necessarily meet the “sole or principal” definition of Section 337. *See* Comments of Motorola at 17.

²² / *See* Comments of Southern Company Services at 31 – 33.

incentive to enter into partnerships with public safety for the deployment and operation of shared 700 MHz radio systems.

Nevertheless, while utilities do have certain high priority communications needs that must be non-preemptible (such as the monitoring and control of substations, etc.), Southern would like to clarify that many utility communications requirements would generally be of medium or lower priority, and a utility might be willing to accept the potential for preemption of such communications in favor of higher priority public safety communications in accordance with the prioritization plan established by the system users. Moreover, utilities recognize the possibility that, under very extreme circumstances, preemption of even the highest priority utility communications may be necessary. Southern believes that these are all issues that can be addressed as part of a prioritization plan established by the users of the shared 700 MHz system that makes clear the manner in which any such preemption may occur, as well as the potential consequences that any such preemption could have on first responder capabilities or on public safety in general.

Finally, Southern again notes that preemption is not always necessary in order to ensure that there is sufficient priority or capacity for public safety communications, particularly on the LTE platform mandated by the Commission for the 700 MHz public safety broadband network.²³ With LTE, network traffic and resources can be dynamically managed in such a way that the most effective method of prioritization for access and capacity 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 preempting a lower-priority user's access to the network entirely. Thus, the dynamic allocation of capacity among the users of the network in accordance with the

²³ / *See* Comments of Southern Company Services at 28 – 29 and 32 – 33.

prioritization plan developed by agreement between the parties will ensure that there will be sufficient capacity available at all times on the network for higher priority public safety services.

IV. THE COMMENTS IN THIS PROCEEDING CONFIRM THAT THE COMMISSION HAS SUFFICIENT AUTHORITY TO PERMIT USE OF THE PUBLIC SAFETY BROADBAND NETWORK BY UTILITIES

The initial comments in this proceeding confirm that, despite any misgivings expressed in the *Fourth FNPRM*, the Commission does in fact have ample authority to permit use of the 700 MHz public safety broadband network by utilities, and Southern hereby expresses its agreement with these commenters.²⁴

In particular, Southern agrees with and supports the arguments presented by the Utilities Telecom Council (“UTC”) demonstrating that utilities and other critical infrastructure entities satisfy the definition of “public safety services” under Section 337(f) of the Communications Act, and thus the Commission need not impose any restrictions upon the use of the 700 MHz public safety broadband spectrum by utilities and CI entities.²⁵ Although Southern did not address this issue directly in its own comments, UTC’s position is consistent with Southern’s argument that Section 337 neither prohibits utility use of this spectrum nor makes access to or use of this spectrum exclusive to “traditional” public safety services.²⁶ At most, any differences between the positions of UTC and Southern amount to nothing more than alternative, complementary paths to the same ultimate conclusion.

²⁴ / See Comments of UTC; Comments of EEI; Comments of the State of New Mexico (filed April 11, 2010) at 9 – 15; Comments of the State of New Mexico (filed Oct. 15, 2010) at 10 – 17; Comments of SCANA at 3 – 10; Comments of Alcatel-Lucent at 24 – 28; Comments of Harris Corp. at 32 – 42; See also Comments of APCO at 9 - 10; Comments of the Minnesota DPS at 15; Comments of the City of Baton Rouge at 3 – 4.

²⁵ / See generally Comments of UTC.

²⁶ / Comments of Southern Company Services at 11 – 21.

Southern also agrees with the State of New Mexico and other commenters that the Commission is not constrained in any way by its tentative conclusion in 2008 that utilities and CI entities are not eligible to use the 700 MHz public safety broadband spectrum under Section 337.²⁷ As these commenters correctly observe, this was only a *tentative* conclusion that was never adopted into law and thus is not binding.²⁸ Moreover, this tentative conclusion represented a proposed reversal of the conclusion formally adopted by the Commission the previous year in order to allow a commercial “D Block” auction winner to use the public safety broadband spectrum for purely commercial purposes.²⁹ In that 2007 *Second Report and Order*, the Commission in fact explicitly rejected the argument that Section 337 required the 700 MHz public safety broadband spectrum to be used exclusively for public safety services, holding that the statute “contains no such limiting language.”³⁰

Accordingly, as discussed in detail in Southern’s initial comments – as well as those from several other commenters in this proceeding – the Commission possesses ample statutory authority with respect to access to and the use of the 700 MHz public safety broadband spectrum, and the Commission should exercise this authority to ensure that utilities and other critical infrastructure entities are able to use this spectrum for private internal communications services in support of the provision of essential services to the public.

²⁷ / Comments of the State of New Mexico (filed April 11, 2011) at 14 – 15; Comments of the State of New Mexico (filed Oct. 15, 2010) at 14 – 16; Comments of Alcatel-Lucent at 27; Comments of Harris Corp. at 37 – 38.

²⁸ / *Id.*

²⁹ / *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, Second Report and Order, 22 FCC Rcd 15289 (2007) (“*Second Report and Order*”).

³⁰ / *Second Report and Order*, 22 FCC Rcd at 15438-39 ¶ 419.

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,

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