

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)
)
Implementing a Nationwide,)
Broadband, Interoperable Public) PS Docket No. 06-229
Safety Network in the 700 MHz)
Band)

**COMMENTS OF APCO
ON
PETITIONS FOR WAIVER TO DEPLOY 700 MHz BROADBAND NETWORKS**

The Association of Public-Safety Communications Officials-International, Inc. (“APCO”) hereby submits the following comments in response to the Commission’s *Public Notice*, DA 09-1819 (August 14, 2009), in the above-captioned proceeding regarding pending petitions for waiver to deploy 700 MHz broadband ”networks.”¹ As noted below, APCO supports allowing local, state and regional deployments, subject to conditions necessary to ensure the viability of a national, interoperable, broadband network for public safety communications.

Founded 75 years ago, APCO is the nation’s oldest and largest public safety communications organization. Most of APCO’s over 15,000 members are state or local government employees who manage and operate communications systems for police, fire, emergency medical, forestry conservation, highway maintenance, disaster relief, and other public safety agencies. APCO appears regularly before the Commission on a wide variety of public

¹ These comments will refer to those proposed “networks” as “systems,” reserving the term “network” for the national public safety broadband network, which may consist in part of a network of such “systems.”

safety communications issues, and has been at the forefront of the FCC’s proceedings regarding the 700 MHz band and the formation of a national public safety broadband network using a public/private partnership model. More recently, APCO helped to bring together advocates of local broadband deployment (including some of entities that have filed petitions for waivers) and proponents of national network to form a consensus on many key issues. The 75th APCO Annual Conference & Exposition in August also provided opportunities for public safety professionals to discuss many of the topics raised in the *Public Notice*, including a “Town Hall” that was added to the schedule for that express purpose.²

I. INTRODUCTION AND SUMMARY

APCO continues to support deployment of a nationwide public safety broadband network that is licensed to, and controlled by, a national public safety broadband licensee. Such a network will ensure interoperability, provide economies of scale, deliver required levels of coverage and reliability, facilitate public-private partnerships to reduce costs and improve spectrum efficiency, and provide opportunities for all public safety agencies to obtain the benefits of broadband communications. Absent a national network, those benefits will only be available to a few well-funded and mostly urban public safety agencies that are able to deploy their own systems.

However, APCO also recognizes that some local, state, and regional entities are anxious to proceed to deploy systems addressing their local requirements. Those deployments should be allowed with conditions necessary to retain the overriding goal of deploying a national public safety broadband network that will be the principal source of broadband communications for the

² APCO appreciates that the *Public Notice* was released just prior to the Annual Conference so it could be discussed among those attending various educational sessions.

vast majority of public safety agencies across the nation. The comments below in response to the questions in the *Public Notice*, and the recent recommendations of the 700 MHz Broadband Task Force, provide the basis for FCC policies to promote that dual deployment of local systems and a national network for the benefit of all public safety agencies.

Finally, APCO joins with nearly all other national public safety organizations to oppose a suggestion from the National Emergency Number Association (NENA) that the current public safety broadband spectrum be auctioned and that, in return, public safety users receive lower cost access to commercial networks. Commercial services will not provide sufficient coverage, reliability, or access to meet most public safety requirements. Coverage for public safety communications must conform to an agency's area of jurisdiction (including remote areas and inside buildings), not just to high population areas desired by commercial carriers. Public safety systems must also be extremely reliable, with little or no expected outage times, include redundancy wherever feasible, be built to withstand natural disasters, and continue to operate during extended power outages. Additionally, public safety agencies must be immediately aware of any network failures or systems impairment within their areas of operation so that contingency plans or auxiliary systems may be placed into use. Systems must also be able to handle peak loads during major emergencies, and provide immediate system access for priority users. Ultimate system control is also essential to manage use by diverse public safety agencies with overlapping requirements. Commercial systems, whether on a discounted basis or otherwise, generally cannot provide that level of coverage, reliability, or control.

APCO also recognizes, however, that building and operating a broadband network will be extremely expensive, whether deployed on a local or national level. Thus, APCO also supports FCC rules that facilitate public-private partnerships to pay for and assist in the operation of a

shared national network that both serves commercial customers and provides priority access for public safety users. A conditioned auction of the D Block could achieve that goal, while also providing for a 20 MHz block of spectrum, which many believe is necessary for a successful nationwide broadband deployment. Thus, APCO continues to support that general approach in the absence of legislation to reallocate the D Block for public safety.³ If the D Block is reallocated, as APCO and others have urged, then the enabling legislation should include provisions to permit the national public safety licensee to enter into public-private partnerships that include network sharing agreements.

II. RESPONSES TO QUESTIONS IN THE *PUBLIC NOTICE*

The following discussion will address each of the questions contained in the Appendix to the *Public Notice*.

Timing

The Commission should proceed to establish guidelines for addressing the petitions for waiver, invite supplemental filings by the petitioners, and then act upon those petitions in a timely matter. To the extent that petitioners provide evidence of funding availability and a plan for deployment, the Commission should proceed to grant requests even prior to adopting revised rules for the 700 MHz band. As discussed below, appropriate conditions will need to be attached to the Commission's actions to ensure that the early-deployed systems will be interoperable, and consistent with the goals of the national network. Furthermore, the petitioners will need to agree to make changes consistent with any subsequent FCC actions in the pending

³ APCO previously submitted comments in this proceeding regarding proposed modifications to the D Block auction rules.

proceeding. While that may be a significant burden, it is necessary to ensure that early deployment do not become isolated islands in the public safety broadband network of the future.

Authority to Operate

The Public Safety Spectrum Trust currently holds the nationwide license for the 700 MHz broadband spectrum.⁴ While it is a unique licensee in many respects, it is nevertheless entitled to certain rights and privileges under Commission rules, relevant statutes, and principles of due process. Therefore, it would be inappropriate to issue new “licenses” to local, state, or regional entities to operate in the same spectrum. Rather, the Commission should permit the national public safety licensee (the PSST) to grant authorizations in the form of spectrum leases to local, state, or regional entities to deploy systems pursuant to specified terms and conditions. In that regard, while the petitioners each request “waivers” to authorize their deployment, the relief granted by the Commission should be in the form of a “waiver” or other appropriate action permitting the PSST, as the national licensee, to authorize the local, state, or regional deployments pursuant to Commission guidelines.

The authorization granted by the PSST could be similar to the “secondary market” spectrum leasing mechanisms that currently exist in the Commission’s rules.⁵ While, some of the petitioners refer to this as a “sublicense,” a “spectrum lease” may be a more appropriate term under current regulations. The secondary market rules are typically used by commercial

⁴ An APCO representative serves on the board of directors of the Public Safety Spectrum Trust.

⁵ 47 C.F.R. §1.9001, *et seq.*

licensees, though the rules expressly allow leasing of spectrum by public safety licensees to other eligible public safety entities.⁶

The basic principle of the process should be that the national public safety licensee authorizes (“leases”) portions of its licensed spectrum in specified geographic areas to local, state, or regional public safety entities that wish to deploy their own systems instead of relying exclusively on the national public safety broadband network. The authorizations should be memorialized in written agreements between the parties deploying the systems and the PSST and approved by the Commission. Such agreements should set forth the terms and conditions of the spectrum authorization, including requirements discussed elsewhere in these comments and those developed by the 700 MHz Broadband Task Force. For example, the agreements should specify the use of LTE, use of other specified interoperability standards and protocols, access to the local, state or regional network by “roamers” from the national network (or other local, state, or regional systems that are part of the national network), and the terms and conditions of that roaming capability (*e.g.*, priority access for public safety users and capacity management). The lease agreements also need to include a provision for “non-profit” fees that provide support for the PSST’s operating expenses, especially where the local, state or regional entity intends to enter into private partnerships (discussed below).

The local, state, and regional entities deploying their own systems will also need sufficient assurances that the authorizations will remain in place absent a material breach of the “lease” agreement or a violation of FCC rules and procedures. Such assurances are necessary to justify the expenditure of public funds to deploy the systems and to avoid disruption of public safety communications operations once the systems are in place.

⁶ 47 C.F.R. §1.9005(t).

Existing Early Buildout Rules

The existing rules contemplate systems deployed in areas where the national network may be slow to develop, and include mandatory release of spectrum and transfer of the local “network” once the national network reaches the relevant geographic area.⁷ Most of the petitioners identified in the *Public Notice* seek more permanent (and generally more urban) deployments than contemplated in the current rules. Therefore, it may be necessary for the Commission to waive the existing early buildout rules, and to propose rule changes to accommodate future requests.

Narrowband Operations

The existing 700 MHz narrowband licensees must not be forced to relocate to other channels without guaranteed payment for the cost of that relocation. The reason for the frequency shift was to create contiguous blocks of broadband spectrum -- the D block and the spectrum licensed to the PSST. The D Block licensee would benefit from the ability to deploy a commercial broadband network in this portion of the 700 MHz band (which would otherwise be inhibited due to potential interference to narrowband operations), thus justifying the payment.

Similarly, to the extent there are such narrowband licensees in areas in which local, state or regional broadband authorizations are approved, the entities receiving those authorizations may not be able to use the occupied spectrum until relocation occurs. In those situations, the available options would appear to be (a) for the local, state or regional broadband deployment to be delayed until relocation occurs, (b) for the local, state, or regional system operator to pay for

⁷ 47 C.F.R. §90.1430.

the relocation directly (subject perhaps to reimbursement either from the D Block licensee if there is an auction or other private partners), or (c) assuming the D block is reallocated, for the local, state or regional system operator to enter into a public private partnership (discussed below) that provides the necessary funds.

A related question is how the narrowband relocation will be paid for by the national public safety broadband licensee if the D Block is reallocated for public safety, as APCO and others now support. APCO believes that the reallocation will not eliminate the need for public private partnerships with the national public safety broadband licensee, and such agreements may also be necessary for at least some of the local, state, and regional entities that deploy their own systems. In either event, the private partners will benefit from the 700 MHz reallocation, just as the D block licensee would, and therefore should be required by agreement to provide funds to cover the relocation of 700 MHz narrowband licensees.⁸

Sufficiency of Pleading

After receiving comments and reply comments in response to the *Public Notice*, the Commission should identify the factors that it will consider in addressing the petitions, and provide an opportunity for entities to supplement their requests. Supplements could also be used to provide more substantial details regarding the proposed local, state and regional deployments.⁹

⁸ As discussed below, APCO believes that Congressional reallocation of the D block should be accompanied by statutory authority allowing the national public safety broadband licensee (and local, state, and regional entities given authority to operate on the spectrum) to enter into network sharing agreements and other public private partnerships that include use of the network by entities that may not be "public safety services" as defined in Section 337 of the Communications Act, subject to requirements that public safety users have priority access.

⁹ APCO agrees that some of the requests lack the level of detail normally required to obtain a waiver or similar relief from the Commission's rules.

In particular, the Commission should require entities seeking to deploy early 700 MHz systems to provide evidence that there is sufficient funding available to support all aspects of the deployment. To the extent entities rely upon pending grant proposals, any approval of the deployment should be conditioned on receipt of the requested funds (or comparable funds from another source) within a specified time frame. Proposals to deploy local, state or regional systems should also be supported by technical details regarding the proposed system functions, features, applications and services. There should be evidence that there is an actual plan to deploy, personnel and systems in place to manage the deployment, a vendor selection process, and an estimated deployment schedule. There should also be documentation of substantial support from the public safety agencies in the geographic region to be served by the proposed system.¹⁰ Once approved, the entity receiving authority to deploy should be required to submit periodic reports to the PSST and the Commission demonstrating progress and explaining any deviations from the initial deployment schedule.¹¹ These requirements are important to ensure that the 700 MHz public safety spectrum is deployed effectively and efficiently, and to prevent spectrum from laying fallow and undermining the goals of a national public safety broadband network.

Interoperability

As discussed in the *Public Notice*, a major goal of the national public safety broadband network is to promote interoperability. Therefore, it is essential that approvals for local, state, or

¹⁰ This would be especially important for requests from states, regional consortia, and large counties that include local independent jurisdictions. *See* discussion below regarding mutually exclusive waivers.

¹¹ Such reports could be similar to the annual reports required of licensees receiving extended implementation authority pursuant to Section 90.629 of the Commission's rules.

regional deployments be conditioned on interoperability with other portions of the national network. Those requirements must include a common technology standard, as well as other protocols and standards necessary to achieve interoperability.

The public safety community, including APCO and the PSST, have embraced LTE as the 700 MHz broadband technology standard, which is also the standard selected by most of the major commercial systems being deployed in the 700 MHz bands. Therefore, to ensure interoperability, the Commission should mandate that all deployment in the 700 MHz public safety spectrum comply with the technology standard approved by the national public safety broadband licensee, as updated or amended from time to time. While the Commission could specify LTE in its rules, that could cause unnecessary delay and pose administrative burdens for minor adjustments to the standard in the future as technology advances.¹²

APCO generally supports the recommendations in the 700 MHz Broadband Task Force Report regarding interoperability. The Report identifies applications that should be required elements, including Internet access and VPN capability, as that will allow roaming users to connect through the Internet to their home systems and applications. APCO cautions against being overly specific regarding other application requirements. Such application standards, while perhaps desirable, need not be accomplished at this early stage of the network deployment. For the most part, Internet access, VPN capability, and other secure tools will be sufficient to ensure that network users will always be able to access their home system applications.

¹² While the Commission typically does not identify particular technology standards in its rules, it did adopt the Project 25 digital standard for 700 MHz narrowband interoperability channels. *See* 47 C.F.R. §90.548

Mutually Exclusive Waivers

As mentioned in the *Public Notice*, some of the petitions overlap with each other geographically. Therefore, the FCC should require that there be coordination and cooperation among local, state or regional systems seeking to deploy their own systems within the same geographic area. As noted above, such parties should also be required to demonstrate that there is substantial support for their proposals among the jurisdictions proposed to be covered by the systems.

The Commission asks whether it should “limit waivers to large geographic regions, such as states, to avoid multiple waivers from a particular area.” Most of the petitions filed so far are from cities or consortia of local jurisdictions. That is to be expected, as state-wide deployments will be far more expensive and difficult to deploy. APCO anticipates that most states will be inclined to defer to the national network to provide public safety broadband communications for most, if not all, of the public safety agencies within those states. Therefore, the Commission should not limit waivers to states.

Enforcement

The Commission is correct to be concerned about enforcement in light of ongoing proceedings and the sensitive nature of public safety systems. Thus, it is imperative that all conditions imposed on local, state, or regional deployments be explicit, documented, and fully understood by all parties. The Commission will need to monitor the deployments carefully, as will the PSST as the spectrum “lessor” and licensee.

The Commission asks if all conditions should be identical for each petitioner. We have no strong views on that point, other than to suggest simplicity over complexity. Common

conditions would also avoid complaints that some parties are treated differently than others. Nevertheless, waivers by definition involve unique circumstances, and some variation in the conditions may be necessary.

Permissible Users

The public safety broadband spectrum was allocated pursuant to Section 337 of the Communications Act, which required that the FCC allocate the spectrum “for public safety services,” which is defined in Section 337(f)(1) as 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.

Since, the Commission cannot waive a statutory requirement, any local, state, or regional deployments will need to comply with permissible use provisions of Section 337. APCO will defer to each of the petitioners to address compliance with this provision.

As noted elsewhere, APCO and other public safety organizations are advocating legislation that would reallocate the D block for public safety use. However, eliminating the potential for a commercial licensee of the D block, absent other statutory provisions, would prevent the PSST and local, state, and regional deployments from entering into public-private partnerships that include sharing of the broadband network with non-public safety entities (as is currently contemplated with a D block auction). APCO believes that public-private partnerships will likely be necessary for the timely and universal deployment of public safety broadband communications. Therefore, APCO and others are also recommending that Congress specify in

its reallocation of the D Block that (1) the spectrum be assigned to the national public safety broadband licensee, (2) that the national public safety broadband licensee (and authorized lessees) be permitted to enter into public-private partnerships, and (3) that such partnerships may include sharing of the network with entities that do not meet the requirements of Section 337(f)(1), subject to priority access provisions.

Flow Mobile and North Dakota Petitions

Flow Mobile and North Dakota initially filed similar petitions, though North Dakota has since withdrawn and resubmitted its request. As an initial matter, Flow Mobile clearly does not meet the requirements of Section 337(f), and therefore cannot be granted authority to deploy a system on the public safety broadband spectrum. Furthermore, the commercial uses proposed by Flow Mobile would not be permitted under current law. Given sufficient legislative authority (see above), companies such as Flow Mobile could become private partners in local, state or regional system deployments, but the local, state, or regional entity must be the holder of the authorization (spectrum lease), and the spectrum must continue to be licensed to the national public safety broadband licensee.

Both of the Flow Mobile and North Dakota petitions are problematic because of the proposed use of narrowband channels as part of the broadband system. That could pose an interference issue for public safety narrowband operations in adjoining regions. Of particular concern would be state-wide 700 MHz systems that might be deployed in Minnesota, South

Dakota, or Montana.¹³ Under no circumstances should North Dakota be allowed to “pave over” the 700 MHz interoperability channels to facilitate broadband communications.¹⁴

Finally, Flow Mobile’s and North Dakota’s commitments to deploy “4-G-like” technology are insufficient. As noted above, the Commission should require that local, state and regional deployments conform to the technology standard (LTE) approved by the national public safety broadband licensee.

CONCLUSION

Therefore, the Commission should proceed to allow the national public safety broadband licensee to authorize local, state, and regional deployments consistent with conditions discussed above.

Respectfully submitted,

/s/

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¹³ With the exception of Minnesota, these are states without large metropolitan areas and, therefore, might not be likely candidates for large 700 MHz narrowband systems. However, the Commission needs to be concerned with the precedent that would be established by approving the North Dakota petition.

¹⁴47 C.F.R. § 90.547