Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matters of	)	
	)	
Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act	)	GN Docket No. 09-137
A National Broadband Plan for Our Future	)	GN Docket No. 09-51 (NBP Public Notice # 2)
International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act	)	GN Docket No. 09-47
Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band	)	PS Docket No. 06-229
Service Rules for the 698-746, 747-762 and 777-792 MHz Bands	)	WT Docket No. 06-150

EX PARTE AND REPLY COMMENTS OF XANADOO COMPANY

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SUMMARY

The Commission's work to articulate the National Broadband Plan is very much of a piece with the work it undertook in 2007 to reorganize the upper 700 MHz band. In both proceedings, a primary objective of the Commission has been to take tangible steps to enable the use of scarce spectrum in deployment of advanced 4G wireless broadband technologies, such as WiMAX and LTE. Both efforts recognize that such steps are necessary, because maximizing opportunities to unleash wireless broadband is crucial to the nation's economic future and to its security and safety.

The re-positioning of the upper 700 MHz A Block to its current position between the upper 700 MHz C and D Blocks is a result of the Commission's reorganization of the upper 700 MHz spectrum in 2007. This reorganization, which was actively supported by the major A Block licensees, was taken primarily in response to the petitions of the public safety community that its upper 700 MHz spectrum be repurposed to enable the deployment of advanced wireless broadband networks.[1]

The shared goal of A Block licensees and the Commission is to maximize the A Block's spectral utility and thereby ensure that the entirety of the valuable upper 700 MHz frequency band can be purposed for its highest and best use in 4G wireless broadband networks. As described herein, this objective has been significantly impeded to date because the A Block's 1 MHz pair is smaller than the minimum channel widths specified in existing 4G standards, as well as because the A Block is not fully harmonized with the adjacent C and D Blocks. While certain startup equipment vendors are now beginning to develop technologies based upon 4G broadband standards that would allow the use of smaller, non-standard channel widths compatible with the

[1] See *infra* n.4, *Second Report and Order*, 22 FCC Rcd 15289, 15407-08 (2007) ("*Second Report and Order"*).

A Block's 1 MHz by 1 MHz allocation, the spectral utility of the A Block will be significantly enhanced if the Commission fully harmonizes the A Block rules with the adjacent the C and D Blocks, and/or combines the A Block with the D Block, as has been recently proposed by the Coalition for 4G in America.[2]

As regards fully harmonizing the A Block with the adjacent C and D Blocks, Xanadoo urges herein that the Commission make changes in the rules to clarify that fixed, base station, mobile, and portable usage is permitted in both the lower and upper segments of the A Block with permitted uses, power levels and power measurement rules fully consistent with the adjacent C and D Blocks. Xanadoo requests that these changes be recommended in the National Broadband Plan Report and intends on filing a petition for rulemaking in WT Docket No. 06-150 and PS Docket No. 06-229 to effectuate these rule changes.

For similar spectral efficiency reasons, Xanadoo also supports the Coalition for 4G in America's proposal to combine the A and D Blocks, as such a combination would also require harmonization of the A Block with the C and D Blocks, and would serve to ensure that the entirety of the upper 700 MHz spectrum band (including A, C and D Blocks, as well as the Public Safety broadband allocation) is made suitable for 4G wireless broadband networks.

[2] See Letter from Metro PCS Communications, Inc., Sprint Nextel Corp., T-Mobile USA, Inc. Clearwire Corp., Rural Telecommunications Group, Inc. and Access Spectrum, LLC, ("Coalition for 4G in America") to Marlene H. Dortch, Secretary, FCC, *Ex Parte* in WT Docket No. 06-150, PS Docket No. 06-229 and GN Docket No. 09-51 (filed Jan. 6, 2010) ("Coalition for 4G in America Jan. 6, 2010 *Ex Parte*").

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EX PARTE AND REPLY COMMENTS OF XANADOO COMPANY

Xanadoo Company ("Xanadoo") files the following comments in the above-captioned matters. With respect to the National Broadband Plan dockets, Xanadoo's comments are Reply Comments and focus on the record collected in response to NBP Public Notice # 2, which sought comment on matters related to Smart Grid deployment. Xanadoo's Ex Parte Comments in PS Docket No. 06-229 and WT Docket No. 06-150 focus on the recent submission by the Coalition for 4G in America, which proposes that the upper 700 MHz A Block be combined with the upper

700 MHz D Block, and that the combined A and D Block spectrum be auctioned promptly.[3] In both its Reply Comments and its Ex Parte Comments, Xanadoo emphasizes the direct continuity between the steps the Commission took three years ago in the *Second Report and Order* and its objectives in completing the National Broadband Plan.[4]

Xanadoo Background:

Xanadoo is a pioneer in the construction and operation of fourth generation (4G) WiMAX wireless broadband networks in the United States. Since 2006, Xanadoo has constructed, and is now operating, WiMAX networks in Texas, Oklahoma, and Illinois. Xanadoo was the first WiMAX service provider to receive a designation as a "Cisco Powered" partner service organization. Xanadoo has a 2.5/2.6 GHz spectrum footprint covering 12 states in the Southwest and Midwest.

Xanadoo also holds 23 licenses for upper 700 MHz A Block spectrum covering approximately 50% of the US population, including the most populous areas of the East Coast, the West Coast, the Midwest and Florida.[5] Xanadoo's spectrum, at 757-758/787-788 MHz, lies

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[3] *Id.*

[4] In the Matters of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 06-150; Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102; Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309; Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, WT Docket No. 03-264; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules, WT Docket No. 06-169; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, WT Docket No. 96-86, *Second Report and Order*, 22 FCC Rcd 15289 (2007) (*"Second Report and Order"*)

[5] Xanadoo, formerly known as Pegasus Communications ("Pegasus"), originally held 32 A Block licenses in the Upper 700 MHz Block, but pursuant to the Commission's reorganization of the upper 700 MHz Block spectrum in 2007, along with other rule changes affecting the A Block licenses, Pegasus relinquished certain of its A Block licenses, and, as a result, now holds 23 A

between the C Block spectrum, at 746-757/776-787 MHz, licensed to Verizon Wireless and the D Block spectrum, at 758-763/788-793 MHz, which has not yet been assigned.

Upper 700 MHz Spectrum & the National Broadband Plan:

The Commission's work to articulate the National Broadband Plan is very much of a piece with the work it undertook in 2007 to reorganize the upper 700 MHz band. In both proceedings, a primary objective of the Commission has been to take tangible steps to enable the use of scarce spectrum in deployment of advanced 4G wireless broadband technologies, such as WiMAX and LTE. Both efforts recognize that such steps are necessary, because maximizing opportunities to unleash wireless broadband is crucial to the nation's economic future and to its security and safety.

The re-positioning of the upper 700 MHz A Block to its current position between the upper 700 MHz C and D Blocks is a result of the Commission's reorganization of the upper 700 MHz spectrum in 2007. This reorganization, which was actively supported by the major A Block licensees, was taken primarily in response to the petitions of the public safety community that its

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Block licenses. *Second Report and Order*, 22 FCC Rcd 15289, 15337-38, 15556 (2007); see also Pegasus Guard Band LLC, 2009 Annual Band Manager Report (filed Feb. 24, 2009).

Xanadoo is also a licensee of one 17/24 GHz satellite license at 115 degrees West Longitude, and has an application pending for a second 17/24 GHz satellite license at 95 degrees West Longitude. Xanadoo has recently submitted comments in National Broadband Plan Public Notice #6 proposing certain rule changes that would afford 17/24 GHz satellite licensees enhanced flexibility to deploy two-way satellite broadband systems. Such changes, if enacted, would significantly increase satellite spectrum available for broadband services to rural and underserved areas throughout North America. *See* In the Matters of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996, as Amended by the Broadband Data Improvement Act, GN Docket No. 09-137, A National Broadband Plan for Our Future, GN Docket Nos. 09-51 and 09-47, NBP Public Notice #6, Comments of Xanadoo Company (filed Jan. 21, 2009)

upper 700 MHz spectrum be repurposed to enable the deployment of advanced wireless broadband networks.[6]

Broadband deployment in the public safety spectrum allocation had not been contemplated in the 1990's when the Commission initially repurposed the 700 MHz spectrum band. As a result, as the potential of 4G wireless broadband technologies became manifest, Public Safety recognized the need for a complete reorganization of the upper 700 MHz spectrum blocks that would enable the use of these broadband technologies in the public safety spectrum allocation.[7] At the same time, the upper 700 MHz A Block licensees recognized a need to have their spectrum relieved of the restrictive guard band rules originally imposed upon their licenses, as well as well as to expand the width of their spectrum allocation from 1 MHz paired to 1.5 MHz paired or greater, as deployment of advanced wireless broadband technologies in the A Block would not be possible without such relief. As a result, the major A Block licensees, with the encouragement of Public Safety, put forth the "Broadband Optimization Plan" ("BOP"). The BOP - which evolved significantly during the course of the 2007 proceedings in order to address legal and other issues arising from public comment upon it - ultimately provided the foundational framework for the Commission's reorganization of the upper 700 MHz spectrum.[8]

However, while many of the objectives sought by Public Safety and the A Block licensees in the BOP were achieved in the *Second Report and Order*, important issues affecting the spectrally efficient use of the upper 700 MHz spectrum band remain to be resolved.

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[6] *Second Report and Order*, 22 FCC Rcd 15289, 15407-08.

[7] The Commission's reorganization of the upper 700 MHz band also involved reclaiming the B Block, (a 1 MHz by 1 MHz allocation) and reserving it for future award. In the *Second Report and Order*, the Commission concluded that "the existing Guard Band B Block is no longer needed as a guard band to protect the adjacent 700 MHz public safety users, and to the extent possible, should be consolidated with the rest of the commercial spectrum for more efficient and effective use." *Id.* at 15336.

[8] *Id.* at 15329-30, 15333-36.

Challenges to the Spectrally Efficient Use of the A Block:

Xanadoo, which purchased its original A Block licenses in Auctions 33 and 38 in 2000 and 2001 for approximately $100 million, has now held the A Block spectrum for over nine years. During this period, Xanadoo has diligently investigated and pursued a wide range of approaches to optimizing its A Block spectrum. Opportunities for using this spectrum for wireless broadband networks have been limited, however, because existing TDD and FDD wireless broadband standards specify channel widths *exceeding* the A Block's 1 MHz by 1 MHz spectrum allocation. (For example, CDMA requires a minimum channel width of 1.2 MHz; the smallest channel width that has been approved by the WiMAX Forum to date is 3.75 MHz; 3GPP has specified minimum LTE channel widths of 1.25 MHz; and WCDMA requires a minimum channel width of 5 MHz.)

For this reason, in the 2007 proceedings that resulted in the complete reorganization of the upper 700 MHz spectrum band, Xanadoo and the other A Block licensees argued strongly that the Commission should reorganize the upper 700 MHz spectrum band, relieve the A Block licensees of the restrictive guard band regulations, and either augment the A Block to a minimum of 1.5 MHz paired, or consolidate the A Block with the D Block.[9] While the Commission took the first two steps in the *Second Report and Order*, it stopped short of taking either of the latter

[9] See In the Matters of Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 06-150; Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission's Rules, WT Docket No. 06-169; Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229; Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, WT Docket No. 96-86, Comments of Access Spectrum, LLC ("ASL"), Dominion 700, Inc., Harbor Guardband, L.L.C., and Pegasus Communications Corp., App. A ("A Proposal for Facilitating the Combination of the A and D Blocks"), App. B ("The Broadband Optimization Plan") (filed May 23, 2007).

two steps. As a result, Xanadoo has been compelled to evaluate the use of non-standard broadband technologies that can utilize narrower channel widths compatible with the A Block's paired 1 MHz spectrum, as well as to explore broadband applications that exploit the superb propagation characteristics of the upper 700 MHz, but that can also be satisfied within the bandwidth limitations of a 1 MHz pair.[10]

To this end, Xanadoo is exploring the use of the A Block in support of Smart Grid applications and Advanced Metering Infrastructure ("AMI"). Smart Grid networks enable utilities to actively measure, monitor and manage the generation, transmission and distribution functions of the energy grid, while AMI networks automate the collection of energy usage information which can enable real time management of energy consumption by utilities and by business and residential consumers.

Because Smart Grid networks connect to sensitive elements of the energy grid, and enable remote management of these elements over very large geographic areas, utilities require wireless networks that provide low latency, very high availability and good propagation and that can also satisfy very high standards of security. These requirements favor the use of licensed spectrum in the UHF bands that can be dedicated to the exclusive use of utilities. The A Block may be spectrum suited for such networks.[11]

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[10] Xanadoo is currently exploring the use of FDD and TDD technologies developed by two startup companies: (i) Arcadian Networks provides equipment that can use as low as 245 and 330 KHz of spectrum in an FDD configuration (see http://www.arcadiannetworks.com/uploads//ABSR_757_18.pdf) (last visited Jan. 27, 2010); (ii) Full Spectrum provides equipment that can use as low as 200 KHz in an TDD configuration. See http://www.fullspectrumnet.com/documents/FM_BS1000_Base_Station_Version_1.0_c.pdf (last visited Jan. 27, 2010); alternate link is http://www.fullspectrumnet.com/bs1000basestation.html (last visited Jan. 27, 2010)

[11] *See* In the Matters of Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996,

Many AMI deployments are using wireless "mesh" technologies over unlicensed spectrum at 900 MHz, 2.4 GHz or 3.6 GHz to move data from customer premises locations to local points of aggregation. While "mesh" networks can be cost effective and the use of unlicensed spectrum avoids the significant expense and difficulty of acquiring licensed spectrum, mesh based AMI networks have proven to be problematic in moving data quickly and reliably from local points of aggregation for "last mile" traffic to base stations where traffic can be transferred to "middle mile" fiber links.[12] As a result, many utilities are now looking to implement intermediate "wireless aggregation" networks to bridge mesh based "last mile" AMI networks to high-speed, fiber based "middle mile" backhaul networks. Because of the superb propagation characteristics of 700 MHz spectrum, and because the A Block is licensed spectrum that could be dedicated exclusively for such utility "wireless aggregation" networks, A Block spectrum is potentially an interesting candidate for use in such "wireless aggregation" networks, as well.[13]

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as Amended by the Broadband Data Improvement Act, GN Docket No. 09-137, International Comparison and Consumer Survey Requirements in the Broadband Data Improvement Act, GN Docket No. 09-47, A National Broadband Plan for Our Future, GN Docket No. 09-51, Corrected Letter from American Gas Association, American Petroleum Institute, American Public Power Association, Edison Electric Institute, National Rural Electric Cooperative Association, and Utilities Telecom Council to the Honorable Julius Genachowski, Chairman, FCC (filed Jan. 21, 2010).

[12] NBP Public Notice #2 explores the Smart Grid applications and deployment that have been declared by Congress to be crucial to the nation's economic security insofar as they promote energy efficiency, reduce climate-threatening emissions and encourage reduced dependence over energy sources outside the nation's borders. Smart Grid applications depend inherently on broadband connections, and while fiber connections may be important in "middle mile", backhaul portions of these networks, most network topologies now envisioned for deploying Smart Grid networks assume 4G wireless broadband networks in the last mile and "second mile" portions of Smart Grid networks.

[13] Arcadian Networks has deployed a wireless network utilizing A Block spectrum licensed to Access Spectrum LLC ("ASL") for utilities in Minnesota for use in moving AMI data from local points of aggregation to utility base stations. Arcadian has developed an FDD technology based upon the DOCSIS standard which uses channel widths of 330 KHz to support point-to-point and

Full Harmonization of the A Block with the C and D Blocks:

While the current rules permit use of the A Block in wireless network topologies using FDD equipment in a single configuration or using lower power fixed point-to-multipoint TDD equipment, the A Block rules do not allow the use of inverse FDD network topologies (providing flexibility to transmit or receive to or from base stations in either of the lower segment or the upper segment), or allow for increased power limits in rural areas. By contrast, the rules for the adjacent C and D Blocks provide flexibility in each of these areas.

To optimize the use of the A Block spectrum for Smart Grid networks, or for wireless aggregation networks bridging AMI last mile networks to fiber based backhaul networks, it is important that changes be made in the existing A Block service rules to enable the flexibility described above. Such rules changes would serve to fully harmonize the A Block service rules with the service rules for the adjacent C and D Blocks, as we believe was intended in the 2007 reorganization of the upper 700 MHz spectrum band.[14]

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point-to-multipoint topologies. Full Spectrum is developing TDD technology based upon the WiMAX (802.16e) standard and a software defined radio that can operate anywhere in the VHF and UHF spectrum bands utilizing channel widths as small as 200 kHz, for fixed and mobile point-to-point and point-to-multipoint network topologies.

[14] The Commission's intent to harmonize the rules in the reorganized upper 700 MHz Band is clear in the Commission's *Second Report and Order*. Unfortunately, section 27.50 of the Commission's rules does not fully reflect that outcome. As a result, significant discrepancies remain between the rules for the upper segment of the A Block (787-788 MHz) and the lower segment (757-758 MHz), and between the A Block and its spectral neighbors, the C Block and D Block: *First*, the rules allow for fixed, mobile, and portable use in the upper segment of A Block, but only for fixed use in the lower segment of A Block. *See* 47 C.F.R. § 27.50(b)(10) (specifying ERP limits for "[p]ortable stations (hand-held devices)" transmitting in several specified bands but omitting mention of the lower A Block segment, 757-758 MHz); *id*. § 27.50(b)(9) (specifying ERP limits for "control stations and mobile stations" in several specified bands but omitting mention of the lower A Block segment, 757-758 MHz); *id* § 27.50(b)(1) (specifying permitted emission levels for lower A Block segment, 757-758 MHz). Thus, mobile handset transmissions are not provided for in the lower segment. By contrast, both of the commercial bands that neighbor the A Block (C Block and D Block) are permitted full flexibility, allowing handset use in both the upper and lower segments. *Id*. § 27.50(b)(10). *Second*, the rules do not allow for base station emissions in the upper segment of the A Block.

Proposal of Coalition for 4G in America:

Full harmonization of the A Block rules with those of the D Block would, in any event, be necessary if the proposal of the Coalition for 4G in America, filed on January 6, 2010 in WT Docket 06-150, PS Docket 06-229 and GN Docket 09-51, to combine the A Block with the D Block (with appropriate compensation to A Block holders) and to thereafter auction the resulting combined A and D Blocks promptly were to be adopted by the Commission, as the combination of the A and D Blocks would obviously require harmonization of the service rules for the two blocks.[15]

The Coalition for 4G in America's proposal to combine the A Block with the D Block is a meritorious proposal for all the reasons enumerated in the Coalition's recent filing.[16] As noted

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See id. § 27.50(b)(1) (specifying "fixed and base" ERP limits for lower A Block segment but omitting mention of upper A Block segment), *but see id*. § 27.50(b)(9)(specifying power limits for fixed stations in the upper segment of A Block). By contrast, both C and D Blocks are permitted full flexibility for fixed, mobile, base and portable operations in their upper segments. *See id*. § 27.50(b)(2). *Third*, the rules provide no flexibility for A Block fixed and base stations in rural areas where population density is lower than elsewhere. By contrast, the rules allow rural power levels of 2000 watts ERP for emission bandwidths of 1 MHz or less in the C and D Blocks. *See id*. § 27.50(b)(3). *Fourth*, the power levels allowed for upper segment A Block fixed stations is limited to 30 watts ERP. *See id*. § 27.50(b)(9). Upper segments of the C Block and D Block are permitted 1000 watts ERP as a general rule, and are allowed higher levels for rural areas. *See id*. § 27.50(b)(2)-(b)(5). *Fifth,* the allowable power measurement techniques are different for the A Block versus the C Block and D Block as defined in § 27.50 (b)(11). *See id*. § 27.50(b)(11). The A Block must comply with 27.50 (b)(11) while C Block and D Block must comply with § 27.50 (b)(12) which indicates either using § 27.50 (b)(11) or any "Commission-approved average power technique". *See id*. § 27.50(b)(12).

[15] *See supra* n.2.

[16] The Public Safety Spectrum Trust ("the Trust") has recently offered comments critical of the Coalition for 4G in America. *See* Communications Daily, Jan 8, 2010 at 10. Xanadoo, together with all of the A Block licensees, have always sought to work cooperatively with Public Safety. Indeed, we provided the initial proposal outlining a wholesale reorganization of the upper 700 MHz spectrum band that would enable more than half of Public Safety's 700 MHz allocation to be available for broadband deployment. Our proposal ultimately provided the foundation for the reorganization of the upper 700 MHz spectrum band adopted by the Commission in its 2007

above, a variation of this proposal was advocated by the A Block licensees in the 2007 proceedings that resulted in the reorganization of the upper 700 MHz band, and, to our understanding, was seriously considered by the Commission at that time. Xanadoo supports the Coalition's proposal, as we did the predecessor proposals considered in 2007. We, of course, note that if the Commission acts favorably on this proposal, it will be necessary to accommodate any then existing users of the A Block by means of access to alternative spectrum and/or by grandfathering their operations. This would include any Smart Grid and AMI networks which may deploy in the band.[17]

Conclusion:

The shared goal of A Block licensees and the Commission is to maximize the A Block's spectral utility. As we have described above, this objective has been significantly impeded because the A Block's 1 MHz pair is smaller than the minimum channel widths specified in existing 4G standards, as well as because the A Block is not fully harmonized with the adjacent

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rulemaking. *See Second Report and Order* at 15329-30, 15333-36. As set forth above, while Xanadoo has diligently sought to make use of its A Block spectrum within the limits of the current rules, we see far greater opportunities for its use in 4G wireless broadband if the rules for the A Block are fully harmonized with the adjacent C and D Blocks. Combining the A Block with the D Block, as proposed by the Coalition for 4G in America, is an efficient and elegant means of accomplishing the same goal, and thereby ensuring that this prime 700 MHz spectrum will be put to its highest and best use. Given the Trust's past advocacy of initiatives to enhance the use of 4G wireless broadband technologies in the upper 700 MHz spectrum band, we therefore do not construe the Trust's public criticism of the Coalition for 4G in America to be addressed to the Coalition's proposal to combine the A and D Blocks, but rather to the Coalition's proposal to auction the D Block spectrum rather than allocate it to Public Safety as the Trust has publicly advocated.

[17] The B Block, which the Commission indicated in the *Second Report and Order* "to the extent possible, should be consolidated with the rest of the commercial spectrum for more efficient and effective use", (*Second Report and Order*, 22 FCC Rcd at 15336) is a potential candidate for such operations. Of course, for the B Block to be useful for Smart Grid and AMI wireless broadband networks, or indeed for any wireless broadband deployments, the B Block service rules would also need to be harmonized with the service rules of the C and D Blocks as Xanadoo has proposed herein for the A Block.

C and D Blocks. While certain startup equipment vendors are now beginning to develop FDD and TDD technologies based upon broadband standards such as DOCSIS, WiMAX and LTE for use in small channel widths compatible with the A Block's 1 MHz by 1 MHz spectral footprint, the use of these emergent technologies -- as well as the spectral utility of the A Block, itself -- will be significantly enhanced by harmonizing the A Block rules with those of its spectral neighbors, the C and D Blocks.

To afford network designers and device manufacturers maximum flexibility, Xanadoo therefore urges that the Commission make changes in the rules to clarify that fixed, base station, mobile, and portable usage is permitted in both the lower and upper segments of the A Block with permitted uses, power levels and power measurement rules harmonized with the adjacent C and D Blocks. Xanadoo requests that these changes be recommended in the National Broadband Plan Report and intends on filing a petition for rulemaking in WT Docket No. 06-150 and PS Docket No. 06-229 to effectuate these rule changes.

For similar reasons, Xanadoo also supports the Coalition for 4G in America's proposal to combine the A and D Blocks, as such a combination would also require harmonization of the A Block with the C and D Blocks, and would serve to ensure that the entirety of the upper 700 MHz spectrum band (including A, C and D Blocks, as well as the Public Safety broadband allocation) is made suitable for 4G wireless broadband networks.

Respectfully submitted,

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