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

In the Matter of	)	
	)	
Spectrum Task Force Requests Information on Frequency Bands Identified by NTIA as Potential Broadband Spectrum	)	ET Docket No. 10-123
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	)	

COMMENTS OF THE UTILITIES TELECOM COUNCIL

The Utilities Telecom Council (UTC) hereby files its comments in response to the Commission's *Public Notice* in the above-referenced proceeding.[1] UTC submits these comments to recommend that the NTIA and FCC find ways to share federal spectrum with utilities and other critical infrastructure industries.

Specifically, UTC urges NTIA and the FCC to find ways for utilities and other critical infrastructure industries to access the 1800-1830 MHz band, which is part of the spectrum that NTIA is currently considering for broadband use.[2] As UTC has explained previously, access to this spectrum for utilities would make sense for several reasons: 1) the spectrum is currently allocated in Canada for utility purposes and a harmonized allocation in the U.S. would promote interoperability, as well as economies of scale that would promote equipment availability and network deployment; 2) utilities and other CII are compatible users of the spectrum and should be able to share the spectrum with federal government operations; and 3) utilities and other CII

[1] Spectrum Task Force Requests Information on Frequency Bands Identified by NTIA as Potential Broadband Spectrum, *Public Notice*, ET Docket No. 10-123, 2011 WL 813267.

[2] "NTIA Takes Next Step in 500 MHz Wireless Broadband Initiative, NTIA," rel. Jan. 31, 2011 (available at http://www.ntia.doc.gov/press/2011/500mhzstatement_02012011.html).

are undergoing a spectrum crisis due to increasing demand coupled with decreasing supply of suitable spectrum, and the 1800-1830 MHz spectrum would help to meet their communications needs.[3]

Even if the 1800-1830 MHz is reallocated for commercial broadband, the NTIA and FCC should look for other federal spectrum that would be suitable for sharing with utilities and other critical infrastructure industries. This would be consistent with the recommendations in the National Broadband Plan and the Department of Energy's Report on the communications needs of utilities.

I. Background

As the FCC has described in its *Public Notice*, the NTIA is conducting a detailed evaluation of the 1755-1850 MHz band to determine whether it can be repurposed for commercial broadband use. Moreover, the FCC explained that this band is allocated to the fixed, mobile, and space operation (Earth-to-space) services on a primary basis for Federal use, and is used by the Department of Defense (DOD), Federal law enforcement agencies, and other agencies for a variety of satellite, surveillance, aeronautical operations, fixed microwave and

[3] *See e.g.* Comments of the Utilities Telecom Council – NBP Public Notice #6, GN Docket No. 09-51 (Oct. 23, 2009); Comments of the Utilities Telecom Council, GN Docket No. 09-51 (Oct. 2, 2009); and Comments of the Utilities Telecom Council and Edison Electric Institute, GN Docket No. 09-51 (Jun. 8, 2009). *See also* Comments of the Utilities Telecom Council in Response to the Department of Energy's Request for Information on the Communications Needs of Utilities (Jul. 12, 2010).

other operations.[4] NTIA reports that it intends to complete its detailed evaluation of this band by September 30, 2011.[5]

In its Report,[6] NTIA explained its analytical framework for prioritizing the candidate bands. NTIA will evaluate bands in the highest priority category first and then proceed to evaluate the lower priority bands. NTIA's evaluation will include a determination of which bands are best suited for one or more of the following four repurposing options in order of preference: (1) *Exclusive non-Federal use (licensed)*; (2) *Federal Shared with non-Federal (licensed)*; (3) *Federal and/or non-Federal use shared with unlicensed*; and (4) *Exclusive unlicensed*. Once NTIA arranges the bands into the repurposing category for which they are deemed to be best suited, they will undergo a more detailed evaluation based on *technical, operational, and cost* considerations to ascertain whether or not they can be repurposed within ten years.[7]

II. The NTIA and FCC Should Provide Access to the 1800-1830 MHz Band for Utilities and Other CII.

As a technical matter, it will be difficult to reallocate the 1755-1850 MHz band for commercial operations and relocate incumbents, due to the variety of federal operations and the expense and lack of substitute spectrum for relocating these incumbent operations. To the extent that the band can be used at all, it is more suitable for sharing than reallocation for commercial

[4] Spectrum Task Force Requests Information on Frequency Bands Identified by NTIA as Potential Broadband Spectrum, *Public Notice*, ET Docket No. 10-123, 2011 WL 813267 (noting that "some of the 20 channels that are used to control Federal satellite systems are within the 1755-1780 MHz band segment.").

[5] First Interim Progress Report on the Ten Year Plan and Timetable, April 2011, NTIA at http://www.ntia.doc.gov/reports/2011/First_Interim_Progress_Report_04012011.pdf.

[6] Plan and Timetable to Make Available 500 Megahertz of Spectrum for Wireless Broadband, Oct. 2010, NTIA at http://www.ntia.doc.gov/reports/2010/TenYearPlan_11152010.pdf.

[7] *Id.* at 10.

broadband. Moreover, it appears that the opportunity to share the band with commercial operations, particularly commercial mobile operations, may be limited due to the heavy use of the band and the challenges with coordinating around incumbent operations. These conclusions are consistent with those of NTIA in its 2001 Report, as well as its earlier reports on the potential for accommodating commercial mobile networks in the 1755-1850 MHz band.[8]

Conversely, the opportunity for sharing the 1800-1830 MHz segment of this band with utilities and other critical infrastructure operations may be more practical, given that such use would be less widespread and easier to coordinate than commercial operations. Utilities need broadband for smart grid, which are primarily fixed point to point and point to multipoint communications applications. These fixed communications could be relatively easily coordinated, particularly with incumbent earth station uplinks used by federal incumbent operations in the band. In addition, utility use of the band would be less widespread than commercial operations, because the communications would largely be used for backhaul and access to a relatively discrete number of fixed nodes, compared with a commercial mobile radio system serving the mass market.

It may also be possible to segment the 1755-1850 MHz band so that part is used for commercial broadband and part (i.e. the 1800-1830 MHz band) is used for utility and other CII

[8] The Potential for Accommodating Third Generation Mobile Systems in the 1710-1850 MHz Band: Federal Operations, Relocation Costs, and Operational Impacts, Final Report, March 2001, NTIA Special Publication 01-46 (available at http://www.ntia.doc.gov/ntiahome/threeg/33001/3g33001.pdf) at page 3-12 (stating that "[i]t is recognized that some systems will not be able to share with a nationwide build out of 3G mobile systems.). *See also* Federal Operations in the 1755-1850 MHz Band: The Potential for Accommodating Third Generation Mobile Systems, Interim Report, dated November 15, 2000, NTIA Special Publication 01-41 (available at http://www.ntia.doc.gov/osmhome/reports/imt2000/imt2000.pdf); and Department of Defense IMT-2000 Technical Working Group's Investigation of the Technical Feasibility of Accommodating the International Mobile Telecommunications (IMT) 2000 Within the 1755-1850 MHz Band, Interim Report, dated October 27, 2000 (available at http://www.ntia.doc.gov/osmhome/reports/dodreport/DOD_IMT2K.pdf) (both reports stating that sharing with commercial mobile operations would be difficult due to the presence of critical federal operations in the band).

purposes. The NTIA itself has considered the potential of similar segmentation of the band, and has suggested that it could represent a feasible solution for coexistence with federal operations in the band.[9] In short, the use of a part of the 1755-1850 MHz band for commercial broadband need not be mutually exclusive with another part of the band (i.e. the 1800-1830 MHz band) being used for smart grid and other utility and CII purposes.

III. Even if the 1800-1830 MHz Band is Reallocated for Commercial Broadband, the NTIA and the FCC Should Work With the Department of Energy to Find Alternative Spectrum for Utilities and Other CII.

As a larger policy matter, the NTIA and FCC should look for ways to provide access to suitable spectrum for utility and other CII purposes, generally. UTC understands that the 1800-1830 MHz band may be reallocated for commercial broadband, but the NTIA, FCC and the Department of Energy should still find alternative bands that would be suitable for use by utilities and other CII for smart grid and other communications purposes.

As the Commission itself has recognized, there are overarching national policy objectives, including energy independence and security, which will be advanced by providing access to spectrum. Thus, the FCC's National Broadband Plan recommended that "The National Telecommunications and Information Administration (NTIA) and the FCC should continue their joint efforts to identify new uses for federal spectrum and should consider the requirements of the Smart Grid."[10] In the context of that recommendation, the FCC explained that "[i]dentifying a nationwide band in which Smart Grid networks could operate would speed deployment of a

[9] *See* Federal Operations in the 1755-1850 MHz Band: The Potential for Accommodating Third Generation Mobile Systems, Interim Report, dated November 15, 2000, NTIA Special Publication 01-41 (available at http://www.ntia.doc.gov/osmhome/reports/imt2000/imt2000.pdf) (explaining various ways that the band could be segmented to accommodate commercial mobile operations without impacting Federal government operations).

[10] "Connecting America: National Broadband Plan", GN Docket No. 09-51, at 262 (Mar. 15, 2010) at http://www.broadband.gov/plan/12-energy-and-the-environment/#_ednref44.

standardized and interoperable broadband Smart Grid," and that "[e]stablishing a nationwide band would also promote vendor competition and lower equipment costs."[11] In response to the FCC's National Broadband Plan, the Department of Energy (DOE) issued its own report, which recommended that "[b]ecause wireless communications will play such a key role in the Smart Grid, within the auspices of the larger federal agency effort to identify additional spectrum for wireless broadband, DOE will seek to work with both the Federal Communications Commission (FCC) and National Telecommunications and Information Administration (NTIA) to review possibilities for spectrum access to accommodate Smart Grid needs, either through sharing frequencies with others users, leasing spectrum, or other alternatives."[12] Therefore, the NTIA and FCC should take this opportunity to work with DOE to identify suitable federal spectrum for smart grid and other utility and CII communications purposes.

[11] *Id.* at 263.

[12] *See* Department of Energy, "Communications Requirements of Smart Grid Technologies" at 6, dated Oct. 5, 2010, available at http://www.gc.energy.gov/documents/Smart_Grid_Communications_Requirements_Report_10-05-2010.pdf.

CONCLUSION

WHEREFORE, the premises considered, UTC urges NTIA and the FCC to provide utilities and other CII access to Federal spectrum, including the 1800-1830 MHz band, as described herein. Access to spectrum is critical to accomplishing smart grid and other national policy goals, and NTIA and the FCC should consider the spectrum needs of utilities and CII in addition to the needs of commercial broadband.

Respectfully submitted,

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