

I. Introduction

UTC is the information technology and telecommunications association for the nation's electric, gas, and water utilities, natural gas pipeline companies and other CII entities. Approximately 800 utilities and pipeline companies are members of UTC, ranging in size from large investor-owned utilities serving millions of customers to small rural electric cooperatives and water districts that serve only a few thousand customers each. All utilities and pipeline companies depend on reliable and secure communications systems to carry out their public service obligations, including various control systems that ensure the safe and reliable provision of electric, gas and water service to the American public. As such, the interests of U.S. electric, gas and water utilities and gas pipelines run in close parallel to those of API's members.

II. Discussion

As with energy production companies, UTC's members operate a wide variety of licensed communications services, from private land mobile systems for both routine and emergency response voice and data communications, to private operational fixed systems regulated pursuant to Part 101 of the Commission's Rules.³ While fewer UTC members use the unlicensed bands noted by API,⁴ nearly all utilities also operate licensed facilities that monitor and control vital electric infrastructure, water systems and gas pipelines through the use of point-to-point and point-to-multipoint wireless communications systems.

³ See 47 C.F.R. § 101.1 *et seq.*

⁴ See API Comments at 2.

These systems often are located in the 928-959 MHz Multiple Address Systems (MAS) frequency bands, or on former “offset” frequencies in the 150-470 MHz bands. Such systems are critical in providing basic services safely, and through their integration with cyber-based control systems, currently are the subject of many Homeland Security efforts.⁵

Continued reliance on both the 900 MHz MAS band and the 150-470 MHz PLMR frequency bands is problematic for utilities. Private frequency pairs available for site-specific licensing in the 900 MHz band are exhausted in most parts of the country, while participation in occasional auctions of commercially allocated portions of the band is unavailable to most, let alone success – and due to their status as “public safety radio services,” utilities are not supposed to be dependent on FCC auctions for spectrum access.⁶ In the PLMR bands, utility control systems were established many years ago, when frequencies offset from primary, 25 kHz channels were available for secondary use for fixed data needs. For the past decade, of course, such frequencies themselves have been primary channels for 12.5 kHz mobile systems: these bands are heavily congested and growing more so every day. With secondary status, the unheard-of event of a utility control system being asked to suspend its operations is well within the realm of possibility – but these systems have no other home to which to go. As

⁵ In an attempt to monitor ongoing cyber security efforts, UTC compiled a list of more than 50 governmental and private initiatives, many linked to CII control systems. Of particular note is work being carried out for the electric industry by the Department of Energy’s Idaho National Laboratory; for more information, see <http://www.inl.gov/nationalsecurity/energysecurity/?num=2>.

⁶ See, 47 U.S.C. § 309(j)(2)(A).

they stand today, there is danger to system reliability; with the passage of the Energy Policy Act of 2005 and its grant of authority to energy regulators,⁷ mandated, much-higher standards for cyber-based control systems – already pending as voluntary efforts – are expected to be in place within months.⁸

UTC supports API's statements concerning the advisability of re-assigning returned 2 GHz spectrum for exclusive-use, site-specific licensing by CII entities. As with petroleum companies, electric/gas/water entities have a serious need for systems "capable of simultaneously transporting multiple applications and data types over a single communications channel, at speeds that vastly surpass what can be achieved using traditional (*i.e.*, 900 MHz) SCADA technology."⁹ This especially is true with a new generation of SCADA technology under development, but no spectrum identified for it. Uses for control systems¹⁰ also are quite similar between the petroleum and electric/gas/water utility industries, except that UTC member entities conduct these functions across generating plants, transmission lines and gas pipelines, substations and water pumping stations.

UTC agrees with API's assessment of the unlicensed bands as "chaotic and unpredictable:" these are not appropriate locations for mission-critical control systems, and such systems should be protected from other, non-critical data functions. CII entities have been both successful and spectrum-efficient

⁷ See, Energy Policy Act of 2005 (HR.6.) Sec.215.b (1-3).

⁸ See, <http://www.nerc.com/~filez/standards/Cyber-Security-Permanent.html>.

⁹ API Comments at 4.

¹⁰ *Id.*

with site-specific licensing assigned on an as-needed basis, and UTC urges the Commission to adopt such a system for part or all of the returned 2 GHz spectrum. Management of this allocation could be handled jointly by already-certified CII frequency coordinators, who have decades of expertise with such licensing.

III. Conclusion

UTC supports API's proposal to provide a higher and better use for long-unused and surrendered 2 GHz MSS spectrum through re-allocation to CII entities to meet vital communications needs. UTC urges the FCC to act in a manner consistent with the API proposal and the views expressed herein.

Respectfully submitted,

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