

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

In the Matter of)	
)	
Review of the Commission’s Rules)	WT Docket 17-200
Governing the 896-901/935-940 MHz)	
Band)	

**Joint Comments of the American Petroleum Institute and the
Energy Telecommunications and Electrical Association**

The American Petroleum Institute (“API”) and the Energy Telecommunications and Electrical Association (“ENTELEC”) jointly submit these comments in response to the Federal Communications Commission’s (“Commission”) Notice of Proposed Rulemaking (“NPRM”) in the 896-901/935-940 MHz Band (“900 MHz Band”) proceeding.¹

Background

API is a national trade association representing more than 600 companies involved in all phases of the petroleum and natural gas industries, including exploration, production, refining, marketing and transportation of petroleum, petroleum products and natural gas. Among its many activities, API acts on behalf of its members before federal and state regulatory agencies. The API Telecommunications Subcommittee evaluates and develops responses to state and federal proposals affecting telecommunications facilities used in the oil and gas industries. API is supported and sustained by companies that make use of a wide variety of wireline, wireless and satellite communications services on both a private and commercial basis. All wireless services

¹ *In re* Review of the Commission’s Rules Governing the 896-901/935-940 MHz Band, *Notice of Proposed Rulemaking*, FCC 19-18, GN Docket 17-200 (*rel.* Mar. 14, 2019) (“NPRM”).

used by our membership require RF spectrum resources, of both narrowband and broadband varieties.

ENTELEC is a user association focusing on communications and control technologies used by petroleum, natural gas, pipeline and electric utility companies. The Regulatory and Technology Committee is comprised of ENTELEC's members and provides policy advocacy and targeted educational opportunities and resources on behalf of those members.

Comments

API and ENTELEC agree there is a shortage of broadband spectrum available for use by the Critical Infrastructure Industry ("CII"), especially for high-speed data applications. A realignment in the 900 MHz band to create a 3 MHz x 3 MHz broadband segment with the remainder of the 900 MHz band left for continued narrowband operations is in the public interest. This block of broadband spectrum creates a balance between maintaining narrowband communications as well as creating a broadband opportunity for critical infrastructure. A 3 MHz x 3 MHz channel size as suggested by EWA and PDV will balance those requirements and will produce a cost-effective approach for obtaining licensed spectrum by CII versus competing in auctions against the major telecommunication carriers in other bands.

However, while API and ENTELEC generally support the broadband allocation, we caution the Commission that this change may be disruptive and potentially detrimental to incumbent narrowband facilities, requiring careful planning and reasonable accommodation. Hence, API and ENTELEC offer the following in summary of our members' input and the questions posed in this NPRM:

1. API and ENTELEC stress the need for highly-reliable, hardened, mission – critical, life safety, narrowband radio systems providing coverage to members’ refineries and plants.
2. The Commission must coordinate with impacted users, including API and ENTELEC members, utilities, and CII regarding the proposals in the NPRM with the priority being to support incumbent narrowband users.
3. The Commission must minimize the impact to incumbent large CII facilities subject to relocation of narrowband radio systems and ensure full cost reimbursements. The incumbent’s relocation and re-banding costs should be negotiated using a voluntary, market-based approach with the broadband licensee, not on a mandatory basis.

Depending upon the level of effort and narrowband system size, the relocation costs can very significant (for example, if existing narrowband radios must be replaced rather than retuned, the replacement cost could exceed \$10 Million for large petrochemical plant). Such relocations also may not be simple retunings, but may include footprint adjustments to ensure coverage is maintained and interference is minimized. It is imperative that the Commission’s rules recognize these concerns, both by ensuring that relocating incumbents are fully compensated, and also by not forcing large incumbent systems to relocate where the licensee deems doing so unfeasible.
4. The Commission must enforce a requirement to that narrowband licensees receive comparable spectrum as the result of any relocation. Also, with further relocation into the proposed narrowband segment of 900 MHz, there is a need to protect co-channel incumbents by maintaining channel spacing to reduce system losses, gauging the

- impact of reduced effective radiated power (ERP) and or coverage if it is reduced to improve co-channel interference.
5. The Commission should provide CII user flexibility in obtaining 900 MHz broadband spectrum, including through partition, disaggregation, and spectrum leasing, to build and operate private, internal 900 MHz broadband systems. API and ENTELEC members would use the 900 MHz broadband spectrum to support data applications including well monitoring, including security, SCADA/telemetry, mobile data, resource location and tracking, and PTT voice.
 6. API and ENTELEC object to the full use of the entire 5 x 5 MHz block of spectrum for broadband at this current time as it does not provide for effective incumbent relocations to unoccupied spectrum in many major markets.²
 7. The Commission should provide for “reserved narrowband spectrum” for relocations and system expansions, such as proposed by EWA for the Expansion and Guard 800 MHz frequencies.³
 8. API and ENTELEC support the Commission’s concept of requiring the broadband licensee to submit a “Transition Plan” demonstrating how incumbents will be voluntarily relocated, protected from interference, and/or consent to base stations separations.⁴
 9. API and ENTELEC support encouraging CII access to all 900 MHz narrowband channels by allowing Business/Industrial (B/ILT) entities to license channels from the

² NPRM at 8.

³ See Use of 800 MHz Guard Band Spectrum) (816-817/861-862 MHz) to Facilitate T-Band (470-512 MHz) Relocation and 900 MHz (896-901/935-940 MHz) Broadband Deployment, Petition for Rulemaking of the Enterprise Wireless Alliance (Apr. 17, 2019).

⁴ NPRM at 13.

- Specialized Mobile Radio (SMR) pool. API and ENTELEC do not support allowing SMR eligible to license B/ILT channels. The FCC's proposal effectively converts the current SMR licenses to broadband allocations. Allowing SMR licensees to convert their licenses, and then license the remaining B/ILT channels, will result in narrowband spectrum scarcity for CII facilities.
10. The Commission should maintain the current 12.5 kHz channel bandwidth for narrowband systems, versus moving to a 6.25 kHz channel bandwidth.⁵
 11. The Commission needs to better define re-banding impacts, including costs and schedules. Due to the nature of the service being offered and the potential impact to incumbent systems.
 12. API and ENTELEC supports a fully voluntary relocation and negotiation process for a 3-5-year period at minimum. Any mandatory relocation should be subject to the results of the voluntary process and addressed in a further NPRM, if necessary, after the voluntary relocation process. Adopting an initial requirement for mandatory negotiation will skew any voluntary relocation.
 13. API and ENTELEC support County or smaller (census tract, especially in large urban areas) geographic market sizes for broadband 900 MHz licenses.
 14. API and ENTELEC agree with the Commission that the more stringent asymmetrical emission mask is necessary to protect Narrowband Personal Communications Service users from out-of-band emissions.⁶

⁵ NPRM at 14.

⁶ NPRM at 9.

15. API and ENTELEC disagrees with the NPRM verbiage which prevents interested CII users from licensing the 3 x 3 broadband spectrum.⁷ We feel this is a mistake, especially in geographic areas, where existing SMR licensees may not hold all 20 SMR licenses. API feels that the Commission should allow B/ILT and CII to license the 3 x 3 broadband spectrum in areas where they otherwise meet the eligibility requirements.

Conclusion

API and ENTELEC offer the above as a cautiously optimistic support of a 3 x 3 MHz block of 900 MHz spectrum for broadband usage by CII entities, that will both properly protect incumbent licensees and serve the public benefit.

Respectfully submitted,

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⁷ NPRM at 12.