12/21/2023

I. BACKGROUND

Pursuant to Section 5.63(c)(1) of the Federal Communications Commission's ("Commission") rules, 47 C.F.R. § 5.63(c)(1), the Lower Colorado River Authority ("LCRA") hereby provides this narrative statement in support of its application for an experimental license to conduct technical trials using spectrum in the 896-901/935-940 MHz band ("900 MHz band") from specified locations in Texas in accordance with the technical and operating parameters described in the accompanying FCC Form 442.

LCRA is a Texas conservation and reclamation district that provides many vital services to Texans, including delivering electricity, managing the water supply and environment of the lower Colorado River basin, providing public recreation areas, and supporting community development. LCRA supplies wholesale electricity to 34 Texas retail utilities, including cities and electric cooperatives that serve more than one million people in 55 counties. LCRA is a steward of the Colorado River and provides water for more than one million people, businesses, and industries in the lower Colorado River basin in Texas. LCRA operates six dams on the Colorado River that create the Highland Lakes and, through these dams, manages floodwater and produces hydroelectric power. LCRA manages over 30 parks, recreation areas and natural resource areas. LCRA Transmission Services Corporation, a nonprofit corporation and instrumentality of LCRA, owns or operates about 5,200 miles of transmission lines and owns, operates, or provides services at nearly 400 substations.

LCRA is exploring the use of 900 MHz private LTE ("pLTE") networks for various mission-critical applications in support of its utility operations, including Push-to-Talk, Data, and Video.

Historically, the 900 MHz band has been configured in 20 blocks of 10 contiguous 12.5 kHz channels (125 kHz) that cover entire Metropolitan Trading Areas ("MTAs"), with each block separated by 10-channel allocations of site-specific Business/Industrial/Land Transportation ("B/ILT") frequencies. Since the minimum channel size for an LTE carrier is currently 1.4 MHz, that 900 MHz band configuration prevented the deployment of these services. On May 13. 2020 the Commission adopted the Report and Order, Order of Proposed Modification, and Orders in WT Docket No. 17-200, FCC 20-67 creating a 3 MHz X 3 MHz allocation to facilitate broadband deployment for business enterprise entities, including those classified as Critical Infrastructure Industry. Anterix, through its licensing company PDV Spectrum Holding Company ("PDV"), is the presumptive broadband licensee in counties in which LCRA operates.

In order to evaluate the technical viability and capability of Anterix's proposed 3X3 MHz allocation in the 900 MHz band, as well as to evaluate potential interference to systems

operating on adjacent bands, LCRA seeks an experimental license to conduct testing as proposed in this application in Brown, Concho, Hays, Travis, and Wharton Counties in Texas.

II. REQUEST FOR CONVENTIONAL EXPERIMENTAL RADIO LICENSE

A. Purpose of Test

LCRA requests a conventional experimental radio license to test LTE equipment on 900 MHz spectrum. The purpose of the testing is to conduct technical radio research that is intended to confirm that up to 3 MHz broadband service can be deployed on 900 MHz spectrum using LTE-certified Band Class 8 equipment to provide the necessary capacity and latency for the above listed use cases without causing interference to systems operating on spectrum adjacent to the proposed 900 MHz allocations in the license. The testing will comply with Section 5.84 of the Commission's rules, 47 C.F.R. §5.84, and will not cause interference to either co-channel or adjacent channel licensees authorized pursuant to the current 900 MHz band plan. It will be conducted on MTA channels held by PDV and interleaved B/ILT channels. The testing will also be a "proof of concept" opportunity, to determine whether LTE data speeds and capacity can support the important fixed field-area functions and applications that are currently conducted on narrowband systems or on legacy copper-based circuits that may be de-constructed. LCRA also intends to assess any impacts the operation of the Band 8 transmitter may have to LCRA's existing 900 MHz LMR system and investigate potential mitigation techniques. LCRA plans to conduct testing with varying PLTE bandwidths, power levels, antenna azimuth or tilt and other assessments necessary to inform and develop a migration strategy.

B. Technical Parameters of Test

The testing will involve wireless connectivity to fixed locations within listed radii of each transmitter site. Details on the Ericsson and Nokia transmitting equipment are provided in the technical sections of this application. It should be noted that this is experimental equipment only to the extent that it has not yet been certified for use on Part 90 spectrum; the models LCRA plans to test are certified LTE Band Class 8 equipment that has been deployed worldwide at 900 MHz. LCRA plans to deploy Kathrein 80010901, the details of which also are provided in the technical section of this application.

As with standard field area network systems, the testing of the fixed wireless LTE equipment will be automated to transmit/receive intermittent information between the transmitters and the end-point (electrical assets) locations. While most of the monitored testing would take place during normal business hours (9:00 AM-5:00 PM local time),

LCRA anticipates that some data transmissions will occur throughout the 24-hour day. Consistent with the requirements of Section 5.107 of the Commission's rules, 47 C.F.R. § 5.107, system management and monitoring will be handled remotely from LCRA's headquarters in Austin, Texas, except for setup and any equipment adjustments that will be conducted by qualified personnel on site.

LCRA requests a 12-month term for the experimental license for a valid product development trial and to make adjustments to the testing as needed.