

**Before the
National Telecommunications and Information Administration
Department of Commerce
Washington, DC 20230**

In the Matter of)
)
An Analysis of Aggregate CBRS SAS)
Data from April 2021 to January 2023)

COMMENTS OF THE UTILITIES TECHNOLOGY COUNCIL

The Utilities Technology Council (“UTC”) hereby provides its comments on the National Telecommunications and Information Administration’s technical analysis report on the Citizens Broadband Radio Service (“CBRS”) Spectrum Access System (“SAS”) data.¹

I. Background and Introduction

UTC is the international association for the telecommunications and information technology interests of electric, gas and water utilities and other critical infrastructure industries (CII).² Its members include all kinds of utilities, ranging from large investor-owned utilities that serve millions of customers across multi-state service territories to smaller rural electric cooperative utilities and public power utilities who may serve only a few thousand customers in isolated communities or remote areas of the country. These members all own, manage and control extensive energy and water transmission and distribution networks, which are supported by wireless and wireline communication systems. Owing to the critical nature of the underlying energy and water systems that they support, utility private internal communications systems are designed, built, and maintained to exceptionally high standards for reliability and security.

¹ NTIA Report 23-567, *An Analysis of Aggregate CBRS SAS from April 2021 to January 2023* (May 2023), available at <https://its.ntia.gov/umbraco/surface/download/publication?reportNumber=TR-23-567.pdf> (hereinafter “Technical Report”).

² See www.utc.org.

These private internal communications networks are more reliable and resilient than commercial networks, and they are predicated the need to maintain communications during emergencies, such as power outages in the aftermath of storms and to communicate in remote areas where commercial networks may not provide coverage. While utilities have extensive and highly reliable communications systems, they need additional spectrum, such as the 3.5 GHz band, to provide more capacity and coverage to support their increasing communications demands due to smart grid and security requirements.

UTC commends NTIA for publishing its Technical Report and is pleased to provide its comments on it. Utilities were some of the highest bidders in the CBRS auction for priority access licenses (PALs) in the 3.5 GHz band, and they are pursuing using the spectrum to support a variety of utility applications, such as supervisory control and data acquisition (SCADA) systems, distribution automation (DA), advanced metering infrastructure (AMI) and distributed energy resources (DERs).³ Eleven utilities participated in the auction and ten of them were awarded PALs, paying a total of over \$174 million and acquiring 371 licenses for CBRS spectrum in 150 counties.⁴ UTC actively participated in the FCC's rulemaking proceeding leading up to the CBRS auction to promote opportunities for utilities to be able to compete for access to PALs for CBRS.⁵ Therefore, UTC has an interest in CBRS and policies to promote and protect utility operations and access to spectrum in the band.

³ Alpha Wireless, "CBRS Auction: Examining the winnings and ambitions of utilities" (Oct. 30, 2020), available at <https://alphawireless.com/cbrs-auction-examining-the-winnings-and-ambitions-of-utilities/>

⁴ Burns & McDonnell, Benchmark Brief "CBRS Auction Results Are in; Did Utilities Cash in to Build Private LTE?" (Sept. 10, 2020), available at <https://blog.burnsmcd.com/cbrs-auction-results-are-in-did-utilities-cash-in-to-build-private-lte>.

⁵ See e.g., Comments of the Utilities Technology Council in GN Docket No. 17-258 (filed Dec. 28, 2017) and Reply Comments of the Utilities Technology Council in GN Docket No. 17-258 (filed Jan. 29, 2018). See also Letter to Marlene H. Dortch, Secretary, Federal Communications Commission from the American Petroleum Institute, Edison Electric Institute, Enterprise Wireless Alliance, Exelon Corporation, General Electric Company, Google LLC, Hospitality Technology Next Generation, Motorola Solutions, Inc., pdvWireless, Inc., Port of Los Angeles, Southern

II. UTC's Comments on the Findings of the Technical Report

UTC supports the findings in the Technical Report. It is not surprising that the Technical Report found that most of the Citizens Broadband Service Devices (CBSDs) are operating in rural areas. This is consistent with the way in which utilities and other CII licensees operate their private wireless communications networks. Utilities and CII need coverage and capacity in areas where commercial wireless networks are unavailable, which tend to be in rural and remote geographic regions. To be sure, they also need to operate in urban and suburban areas as well, and utilities also acquired PALs in these areas to ensure communications reliability across their entire electric, gas and water service territories. So, the Technical Report reflects the reality that utilities and CII tend to be operating CBSDs all across their service territories including in rural areas, where they need capacity and coverage to ensure communications reliability.

The CBRS spectrum was billed as the innovation band, providing opportunities for smaller entities to share spectrum that they otherwise couldn't afford through traditional auctions of exclusive-use licenses.⁶ The Technical Report reveals a tale of two sides of CBRS. On the one hand, it demonstrates that utilities and other smaller entities are putting the CBRS spectrum to effective use where they were able to acquire licenses, which tended to be mainly in rural areas. On the other hand, it reflects the reality that the major communications service providers who tended to acquire CBRS PALs in urban and suburban areas have reportedly refrained from deploying CBSDs.⁷

Linc, Union Pacific, and Utilities Technology Council in GN Docket No. 17-258 (filed Apr. 25, 2018) and Letter to Marlene H. Dortch, Secretary, Federal Communications Commission from the CBRS Coalition (including UTC) in GN Docket No. 17-258 (filed May 9, 2018).

⁶ "Innovation in the 3.5 GHz Band: Creating a New Citizens Broadband Radio Service" Tom Wheeler, FCC Chairman (Mar. 27, 2015), available at <https://www.fcc.gov/news-events/blog/2015/03/27/innovation-35-ghz-band-creating-new-citizens-broadband-radio-service>.

⁷ LightReading, "Charter will deploy CBRS widely, but it's in no rush" (May 18, 2023) available at <https://www.lightreading.com/cable-tech/charter-will-deploy-cbrs-widely-but-its-in-no-rush-/d-id/784953>.

The Technical Report found that CBRS deployments increased overall between April 2021 and January 2023, growing at a steady rate with a mean quarterly increase of 12% and total increase of 121% over the 21-month analysis period. Significantly, 95% of the deployments were outdoors, which reflects the reality that CBRS is being used to provide access for a variety of non-commercial as well as commercial services. To be sure, GAA represents the vast majority of CBSDs, but many of the GAA CBSDs apparently operate in combination with PALs, which also reflects the importance of PALs for ensuring reliability for certain traffic, such as mission critical communications by utilities and other CII. No doubt, most CBSDs will be used for GAA because of their relative ease of deployment and their capability to provide additional capacity, but PALs are also important, despite being fewer in number compared to GAA CBSDs. Finally, the Technical Report found that band utilization grew and that there was still room for more growth in the future; and it also found a large number of CBSDs were operating in Dynamic Protection Areas (DPAs)⁸ which would not have been possible if those neighborhoods had been designated as exclusion zones. Utilities like San Diego Gas & Electric, which acquired three PALs in two counties is a good example of utilities that operate in DPAs and which would also likely benefit from available room for additional band utilization in those areas.

III. UTC's Suggestions for Improvements to the Technical Report and the Spectrum Sharing Framework

NTIA has requested comments on how to improve future technical reports and the spectrum sharing framework. To improve the spectrum sharing framework, UTC suggests increasing the permissible power of CBSDs to permit greater coverage, particularly in rural and

⁸ NTIA, "Dynamic Protection Areas Will Spur Spectrum Sharing" available at <https://ntia.gov/blog/dynamic-protection-areas-will-spur-spectrum-sharing>.

remote areas where terrain, foliage and other factors reduce coverage and where there is lower potential for interference to federal incumbent operations in general.

While the Technical Report concluded that CBRS is working and progress is being made, the band would be even more effectively used if higher power operations were permitted, thus requiring fewer CBSDs to obtain coverage and increasing reliability at the same time. The data from the Technical Report supports this recommendation, because the overwhelming number of CBSDs were Category B with a maximum EIRP of 50 W. This reflects the increasing demand for higher power operations to expand coverage for CBRS. In addition, higher power operations would help to increase reliability which is extremely important to support mission critical communications by utilities and other CII. Increasing power would enable utilities and other CII to rely more heavily on CBRS to support mission critical communications, thereby encouraging greater investment in and deployment of CBSDs. Moreover, now that more experience has been gained with Spectrum Access Systems (SAS) to prevent interference, it should be reasonably feasible to increase the power of CBSDs without increasing the potential for interference to incumbent federal operations. Increasing the permissible power of CBSDs would be the single greatest way that the spectrum sharing framework could be improved to make more effective use of the band.

Future reports could be improved by analyzing the potential for increasing the power of CBSDs in the band, particularly in rural and remote areas where there may be fewer incumbent systems and the potential for interference is lower. UTC supports the Technical Report and understands that it was intended to analyze where CBSDs are operating currently. The next report should also analyze areas where CBSDs are not currently operating and recommend ways to increase the deployment of CBSDs in those areas, including increasing the permissible power

of CBSD operations in those areas to create incentives for increased deployment. Collecting this information would complement the valuable information that has been provided in the Technical Report and would help inform policies to improve the spectrum sharing framework in the 3.5 GHz band.

CONCLUSION

UTC thanks the NTIA for the opportunity to comment on its Technical Report and we welcome the opportunity to work together to improve future technical reports and the spectrum sharing framework in the 3.5 GHz CBRS band.

Respectfully submitted,

UTILITIES TECHNOLOGY COUNCIL

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May 31, 2023