

April 19, 2018

Via Electronic Filing

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street, SW
Washington, DC 20554

Re: *Ex Parte* Letter: *Promoting Investment in the 3550-3700 MHz Band* –
GN Docket No. 17-258

Dear Ms. Dortch:

Edison Electric Institute, Enterprise Wireless Association, the General Electric Company (“GE”), pdvWireless, Inc., the Port of Los Angeles, Southern Linc, Union Pacific, and the Utilities Technology Council (collectively, the “IIoT Coalition”) urge the Commission to help protect U.S. national and homeland security by maintaining 3.5 GHz Citizens Broadband Radio Service (“CBRS”) licensing policies that give industrial and critical-infrastructure entities a reasonable opportunity to compete for, acquire, and use CBRS spectrum to self-provision private wireless networks that support robust Industrial Internet of Things (“IIoT”) applications and services.¹ The IIoT Coalition believes that industrial and critical-infrastructure operators are best positioned to evaluate their operational security needs and the necessary response to the growing threat of cyber intrusions by foreign and domestic hackers. Industrial and critical-infrastructure entities will be able to design and deploy IIoT networks that will ensure the safety, security, resilience, and, where applicable, compliance with North American Electric Reliability standards at their essential facilities. If the Commission instead adopts a CBRS licensing framework that lacks reasonable small geographic-area licensing, such action would deny industrial and critical-infrastructure entities meaningful access to the 3.5 GHz band and could undermine U.S. national and homeland security by denying them the ability to deploy IIoT applications and services that improve the resiliency of their operations.

The IIoT Coalition strongly supports the Commission’s existing geographic licensing approach in the CBRS band, as its members have made clear in their filings in this proceeding. With census-tract Priority Access Licenses (“PALs”) at 3.5 GHz, the CBRS band is an ideal spectrum platform for the IIoT. Under the current licensing framework, industrial and critical-infrastructure entities will be able to use their own licensed 3.5 GHz spectrum to “self-provision” IIoT wireless connectivity over geographically targeted, private networks, rather than having to rely solely on commercial wireless carriers’ licensed spectrum and services. Self-provisioned private wireless networks at 3.5 GHz will allow industrial and critical-infrastructure entities to promote innovation, minimize costs, control service quality, and

¹ See *Promoting Investment in the 3550-3700 MHz Band*, Notice of Proposed Rulemaking and Order Terminating Petitions, 32 FCC Rcd 8071 (2017).

optimize network performance. The 3.5 GHz band – the “Innovation Band” – can serve as a unique catalyst for accelerated growth in the U.S. industrial, manufacturing, and critical-infrastructure sectors and throughout the American economy more generally. As the Commission considers various licensing approaches for CBRS, the Commission should recognize that its “Innovation Band” has been a dramatic success so far, triggering a surge in wireless industry involvement by non-traditional participants and sparking new investment and commercial activity, innovative business models, digital infrastructure development, and collaboration between stakeholders.

In addition to expanding the economy, a sound CBRS licensing framework will have significant benefits for U.S. national and homeland security. As Congress has recognized, “critical infrastructure” includes systems and assets, whether physical or virtual, that are “so vital to the United States that the incapacity or destruction of such systems and assets would have a debilitating impact on security, national economic security, national public health or safety, or any combination of those matters.”² Today, industrial and critical-infrastructure entities are increasingly dependent on wireless communications for the safety and security of their facilities. Under a CBRS licensing scheme that includes census-tract licensing in *all* areas of the United States, industrial and critical-infrastructure operators will be able to design and self-provision sophisticated, resilient private networks at 3.5 GHz that protect their facilities. The inherent efficiencies and redundancies brought about by these IIoT applications will enhance our country’s critical infrastructure owners’ and operators’ ability to recover from and respond to all types of incidents.

The IIoT Coalition cautions the Commission against adopting a revised CBRS framework that could impede efforts by industrial and critical-infrastructure operators to enhance their ability to maintain the safety and security of their facilities. Only two years after its 2015 Order on CBRS,³ the Commission last fall proposed to abandon its census-tract licensing approach and shift to Partial Economic Area (“PEA”)-based licensing in the CBRS band.⁴ If the Commission in fact moves to a CBRS licensing scheme featuring little to no census-tract PAL licensing at 3.5 GHz, it will be more costly and difficult (and in some cases impossible) for industrial and critical-infrastructure operators to self-provision effective and fully functional IIoT networks in the 3.5 GHz band. Licensing PALs on a PEA, Cellular Market Area (“CMA”),

² 42 U.S.C. § 5195c(e).

³ *Amendment of the Commission’s Rules with Regard to Commercial Operations in the 3550-3650 MHz Band*, Report and Order and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd 3959 (2015) (“2015 Order”).

⁴ The vast majority of interested parties in this proceeding – including IIoT Coalition members and other parties collectively representing a wide swath of the U.S. economy – have opposed this move to larger-area licensing and continue to support census-tract licensing in this band.

county, or other wide-area basis would exponentially raise the cost of those licenses. In this scenario, industrial and critical-infrastructure entities will be highly unlikely to win or even compete for urban PALs at auction, no matter how many industrial and critical-infrastructure facilities are located in a given urban area.⁵ Nor will unlicensed General Authorized Access (“GAA”) spectrum be a viable alternative in most cases, since unlicensed frequencies do not provide the long-term interference protection required by critical infrastructure and are more likely to be at risk of external hacking attempts.

Thus, as the Commission considers different CBRS licensing approaches in this proceeding, the IIoT Coalition urges it to weigh the effects of its policy choices on U.S. national and homeland security. If industrial and critical-infrastructure companies are able to compete in auctions for census-tract licenses and gain meaningful access to licensed CBRS spectrum, these companies can realize the full benefits of the IIoT revolution, including improved safety, security, and system resilience at America’s critical-infrastructure facilities. With a full understanding of the complexity of their own operations, industrial and critical-infrastructure entities will be able to employ essential IIoT security, device, and network control features to further safeguard their core-mission operations from foreign and domestic hacking efforts and cyber intrusions, to the great benefit of the American public.

Respectfully submitted,

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⁵ It would simply not be economically rational for industrial and critical-infrastructure entities to obtain licenses covering territory extending far beyond their geographically focused deployments. In addition, industrial and critical-infrastructure entities cannot count on cost-effectively obtaining such wireless functionality from commercial mobile operators. The major carriers have traditionally emphasized consumer-based services rather than data-intensive IIoT-type offerings, and they have long been reluctant to allocate a meaningful volume of spectrum with certainty of access to critical-infrastructure and other non-traditional users through the secondary market. Finally, even where available on the secondary market, CBRS spectrum would likely come at an uneconomic cost, given that the transaction costs for such arrangements would likely fall asymmetrically on non-traditional spectrum users such as IIoT customers.

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