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

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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”),

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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,

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. 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.
Ms. Marlene Dortch  
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