BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Amendment of the Commission's Rules with Regard to Commercial Operations in the 3550-3650 MHz Band	)	GN Docket No. 12-354
	)	
	)	
	)	

To: The Wireless Telecommunications Bureau

COMMENTS OF EXELON CORPORATION

Exelon Corporation hereby responds to the Commission's request for comments regarding the method for determining the protected contours for grandfathered 3650-3700 MHz band licensees.[1] As detailed herein, Exelon requests the Commission revise its proposed Wireless Protection Zone methodology to fully protect fixed systems that are in the process of being deployed.

I. Background

Exelon is a *Fortune 150* company that works in every stage of the energy business: power generation, competitive energy sales, transmission, and delivery. Exelon Generation is one of the largest competitive United States power generators, with approximately 32,000 megawatts of owned capacity comprising one of the nation's cleanest, lowest-cost power generation fleets. Constellation provides energy products and services to more than 2 million residential, public sector and business customers, including more than two-thirds of the *Fortune 100*. Exelon's three utilities deliver electricity and natural gas to more than 7.8 million customers in central Maryland (BGE), northern Illinois (ComEd) and southeastern Pennsylvania (PECO).

[1] *See* Wireless Telecommunications Bureau Seeks Comment on an Appropriate Method for Determining the Protected Contours for Grandfathered 3650-3700 MHz Band Licensees, *Public Notice*, GN Docket No. 12-354, (Rel. Oct. 23, 2015)("Public Notice").

Exelon currently has an extensive number of 3.65 GHz base stations and CPE deployed in the Baltimore, Philadelphia, and Chicago regions supporting critical electric and gas communications such as Distribution Automation ("DA"), Advanced Metering Infrastructure ("AMI"), Supervisory Control and Data Acquisition ("SCADA") and Telemetry. The systems all require a reliable communications medium to allow the electric and gas grids to be monitored, controlled and supported.

In addition to deployed units, Exelon is in the process of further building out its 3.65 GHz networks and has made a multimillion dollar investment to support future applications at its BGE, ComEd, and PECO electric and gas utilities. In addition to DA, AMI, SCADA, and Telemetry, such applications include the replacement of analog lease lines currently provided by carriers such as AT&T and Verizon. The carriers have announced the sun setting of analog lease lines which play a major role in today's electric and gas utility communications.

II. The Commission Should Modify Its Methodology for Determining the Grandfathered Wireless Protection Zones:

The Commission's Public Notice requests Comment on the proposed methodology for Wireless Protection Zones for grandfathered 3.65 GHz band stations. The Public Notice states, in part,

> *"The second prong of the approach will provide protection to each base station's registered CPE. Protected sectors around each base station will be defined based on the distance from the base station to the furthest CPE unit registered in ULS and the base station antenna parameters (e.g., azimuth and beamwidth) registered in ULS. All stations that operate above the mobile power limit are required to be registered in ULS and, therefore sector-based protection zones will only be used in areas where licensees have registered CPE units. A diagram in Appendix C shows a graphic representation of this methodology. We seek comment on this two-pronged approach."*[2]

[2] *See* Public Notice at 2 (internal citations omitted).

The Commission's "second prong" approach to determine the wireless protection zones for 3.65 GHz base stations and registered CPE would be very damaging to Exelon utilities. Exelon has heavily invested and built out 75 sites in the 3.65 GHz band totaling 334 base station radios which support 475 CPE units. The 475 CPE units will provide backhaul communications for more than 25,500 DA devices and 1.6 million AMI meters. The number of devices being backhauled by Exelon's 3.65 GHz network will continue to increase as more devices are added to the Smart Grid.

Limiting the protection zone to areas in which CPE currently are registered would be a disservice to grandfathered licensees that use the 3.65 GHz band for fixed communications. In most cases utilities are installing fixed CPE units on 80-100 foot poles. Exelon has already made investments in poles and associated 3.65 GHz radio equipment to install CPE units, many of which will not be constructed by April 17, 2016. Under the Commission's proposed methodology, although those CPE units would be communicating with a grandfathered base station, they would not necessarily receive protection from CBRS users.

The Commission's current proposal does not take into account CPE units that have already been planned, but not built-out, or future CPE units that will be communicating with grandfathered base stations. This is contrary to the Commission's rules for other radio services, many of which allow up to 10 years to fully construct a system.[3] Also, the Commission generally allows licensees the option to request extended implementation plans or extensions of construction periods.[4] In fact, in this instance the Commission effectively grants *mobile* 3.65 GHz band users the ability to grow their systems within a 4.4 km protection zone, which it

[3] *See e.g.*, 47 C.F.R. § 90.767.

[4] *See* 47 C.F.R. §§ 90.629. 1.946(e). The Commission should affirm that such relief is available here, including through the waiver process, for uniquely situated companies like Exelon.

believes is the "maximum range of" mobile 3.65 GHz band devices.[5] On the other hand, licensees such as Exelon that have opted to use the 3.65 GHz band for *fixed* communications are not granted access to their "maximum range" of operations, but are limited based on the location of CPE that was registered by April 17, 2015 and deployed by April 17, 2016.

Exelon believes the Commission's Wireless Protection Zone methodology should be base station-centric and should provide protection to any CPE that is associated with a grandfathered base station capable of providing the required RSSI and CINR to support the application that it is carrying. Exelon currently has CPE locations that are a distance of 16-24 km away from the grandfathered base stations that are providing connectivity (*i.e.*, serving base station). Thus, the Commission should grant Exelon a protection zone of up to 24 km from each grandfathered base station, regardless of the location of CPE that is currently deployed. This method will not penalize grandfathered 3.65 GHz base station licensees that have planned CPE locations in a particular sector of a grandfathered base station, but do not expect to deploy those CPEs until after April 17, 2016. At the same time, it will allow grandfathered base station licensees to continue to build out their networks, provide protection for their investment, and, in Exelon's case, continue to support effective and reliable critical infrastructure communications.

III. The Commission Should Make Certain Other Changes and Clarifications to Its Proposal

There are two other issues with the Commission's proposal that that are of particular concern to Exelon.

A. Updates to Technical Parameters of Grandfathered Stations

The Commission asked that the frequencies being used by the 3.65 GHz base stations and CPEs be added to the database. However, the Public Notice contains no discussion of how a 3.65

[5] *See* Public Notice at 2.

GHz base station licensee would change the frequency or the channel bandwidth of the grandfathered base station. Changing frequency and channel bandwidth are options that many licensees use to mitigate potential interference or increase data rates required by a particular service. The SAS should allow licensees the ability to change the operating parameters (*i.e.* frequencies, channel bandwidths antennas, etc.) of grandfathered 3.65 GHz base stations while maintaining grandfathered status. This could be done either by accessing the SAS database and entering the parameters manually or by having the 3.65 GHz base stations communicate the parameters directly to the new SAS database.

B. CPE Served By Multiple Base Stations

The Commission asked that licensees list the frequencies of the serving grandfather base station. How will the situation be handled when there is a secondary grandfathered base station that servers a CPE? What kind of reporting is needed if the CPE fails over to the secondary grandfathered base station? Should all grandfathered base stations that are capable of serving a CPE be listed? The FCC database and the new SAS should allow for a CPE to be served by multiple 3.65 GHz grandfathered base stations. This would allow the protection for both the primary and secondary 3.65 GHz grandfathered base stations to the CPE.

IV. Conclusion

Exelon urges the Commission to modify its proposed Wireless Protections Zones methodology for grandfathered 3.65 GHz band consistent with these comments.

Respectfully submitted,

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