

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

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

COMMENTS OF CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC

CenterPoint Energy Houston Electric, LLC (“CenterPoint”), pursuant to the Public Notice in the above-captioned proceeding,¹ submits these initial comments on the Commission’s proposed approach to defining “Grandfathered Wireless Protection Zones” for incumbent operations on the 3650-3700 MHz band during the transition to the recently adopted Part 96 rules.² CenterPoint was an active participant in the rulemaking that culminated in the Part 96 rules, and in that proceeding, detailed to Commission the need to protect its substantial, long-term investment in smart grid and advanced metering infrastructure operating between 3650 and 3700 MHz.³ CenterPoint generally supports the proposed process for defining “Grandfathered Wireless Protection Zones,” but urges the Commission to refine, as follows: (1) the proposed size of “Grandfathered Wireless Protection Zones”; and (2) the requirement that incumbents submit defined “center frequencies” for proposed “Grandfathered Wireless Protection Zones”.

CenterPoint is an investor-owned utility, headquartered in, and serving Houston, Texas, and surrounding areas. CenterPoint provides electric transmission and distribution services, and owns

¹ Public Notice, GN Docket No. 12 -354, Wireless Telecommunications Bureau Seeks Comment on an Appropriate Method for Determining the Protected Contours for Grandfathered 3650-3700 MHz Band Licensees, DA 15-1208 (Oct. 23, 2015) (“Public Notice”).

² *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, Report and Order and Second Further Notice of Proposed Rulemaking, 30 FCC Rcd 3959 (2015), FCC 15-47.

³ See Ex Parte Supplement Comments of CenterPoint Energy Houston Electric, LLC, Oct. 16, 2014.

and operates wires, poles and other infrastructure throughout its five thousand (5,000) square mile service area. CenterPoint delivers electric power to 2.3 million metered homes and businesses.

In 2009, CenterPoint became among the first electric utilities in the United States to begin constructing a full scale smart grid and advanced metering network. Since that time, CenterPoint made direct capital expenditures on infrastructure exceeding \$766 million, including federal grant funds in the amount of \$200 million, awarded by DOE pursuant to federal statute.⁴ CenterPoint's specific investment in telecommunications infrastructure, operating primarily on the 3650-3700 MHz band, has exceeded \$125 million.⁵ Those telecommunications technologies and applications using the 3650-3700 MHz band currently support CenterPoint's mission critical systems, including its Advanced Metering System, Outage Management and Recovery System, and Intelligent Grid. Overall, the segments of CenterPoint's network that have been updated to incorporate smart grid and advanced metering infrastructure are demonstrated to be 34% more reliable than the segments of CenterPoint's network that continue to operate using legacy telecommunications technologies.

At this time, CenterPoint operates over 6600 E5 MDS – Mercury 3650 radios, representing 85% of the radios registered in the Commission's Universal Licensing System ("ULS"). The value of these devices would be substantially minimized and undermined if the protection zone for new customer premises equipment ("CPE") installations were limited to 4.4 km from the base station. Furthermore, to appreciate the full capabilities of these devices, CenterPoint must not be restricted to operating only on the specific frequency (or frequencies) that CenterPoint identifies for purposes of defining the Grandfathered Wireless Protection Zones applicable to its current base stations.

⁴ In 2009, CenterPoint was awarded Smart Grid Investment grant funds by the United States Department of Energy ("DOE"), pursuant to its program established under the American Reinvestment and Recovery Act of 2009. Such funds were awarded for the specific purpose of installing advanced metering infrastructure, and strengthening the self-healing properties of CenterPoint's electric grid.

⁵ This capital expenditure relates to advanced smart meters and licensed remote metering devices, licensed access points, licensed Intelligent Grid devices, licensed telecommunications sites, and automated substations, nearly all of which operates on frequencies in the 3650-3700 MHz band, installed by CenterPoint between 2009 and 2012.

I. SIZE OF “GRANDFATHERED WIRELESS PROTECTION ZONES

The Public Notice proposes defining protection zones surrounding each grandfathered base station based on the distance from such base station, to the furthest CPE unit registered in ULS on or before April 17, 2015; and for all new CPE installations, based on a 4.4 km radius, and the base station parameters registered in ULS.⁶ CenterPoint urges the Commission to refrain from adopting this 4.4 km limitation on protection zones for new CPE installations, as this distance is insufficient to protect such installations against harmful interference. When radios operating on the 3650-3700 MHz band are deployed in areas having flat terrain and low obstructions, the “talk-back” distance between the base station, and the remote CPE is much greater than the Commission presumed in calculating the maximum protection zone. Therefore, 3650-3700 MHz licensees operating in this type of terrain will encounter increased interference, and ultimately will be required to install more base stations, at substantial additional cost, to ensure reliable communications beyond the 4.4 km protection zone proposed.

The geographic area served by CenterPoint encompasses flat terrain which, in rural areas, enables some 3650-3700 MHz CPE to operate at distances over 19 km from the base station. As the population the Houston metropolitan area continues to grow, CenterPoint installs, on average, 45,000 new advanced meters each year. CenterPoint requires additional 3650-3700 MHz CPE to support such new advanced meters, and to the extent CPE is needed beyond the 4.4 km protection zone, there is greater potential for unacceptable levels of interference. In such cases, CenterPoint would be forced, at a minimum, to construct new base stations, or transition to different spectrum entirely. CenterPoint therefore requests that the protection zones for new CPE be the greater of 8 km from the grandfathered base station, or the distance from the grandfathered base station to the

⁶ Public Notice 2.

furthest registered 3650-3700 MHz CPE, covering the full 360 degrees around the grandfathered base station. This revision to the proposed Grandfathered Wireless Protection Zones is needed to protect CenterPoint's significant investment in 3650-3700 MHz infrastructure, and the integrity of its existing network.

II. SUBMISSION OF CENTER FREQUENCIES.

The Public Notice states that a specific center operating frequency to be identified for each grandfathered base station will be used to define the applicable Grandfathered Wireless Protection Zone for that base station.⁷ The implication here is that an incumbent now operating on the 3650-3700 MHz band will, in the future, be required to use only the frequencies identified for purposes of defining the Grandfathered Wireless Protections Zones, and will no longer be authorized to use the full 50 MHz made available under the Commission's modified Part 90 rules. Such result would be at odds with the Commission's intention of providing incumbents sufficient flexibility to avoid harmful interference through negotiating use of 3650-3700 MHz frequencies with other licensees. If the Commission were to require incumbent licensees to register one specific operating frequency as a fixed channel for each grandfathered base station, CenterPoint would be unable to effectively mitigate harmful interference within its service area. The resulting signal degradation would, in turn, compromise CenterPoint's meter reading functions, and render CenterPoint unable to provide usage data to the electric market, to direct remote transactions, or to operate distribution switching devices in the impacted area. In that event, substantial additional resources would be required to manually perform functions that are automated through the use of smart grid technologies.

⁷ Public Notice 3.

III. CONCLUSION

CenterPoint respectfully requests that the Commission adopt the proposals set forth in its Public Notice subject to the modest revisions discussed herein.

Respectfully submitted,



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