DESCRIPTION OF RESEARCH PROJECT

Pursuant to Sections 5.3(j) and Section 5.61 of the Federal Communications Commission's rules, 47 C.F.R. §§ 5.3(j) and 5.61, CCO Fiberlink, LLC ("Charter"), a limited liability company and subsidiary of Charter Communications, Inc., seeks Special Temporary Authority ("STA") for 180 days, beginning November 1, 2018, or immediately upon grant, to test and evaluate millimeter wave coverage and capacity performance in anticipation of 5G wireless development. As part of its efforts to lead the industry in broadband innovation, Charter intends to conduct fixed wireless experiments in the 32 GHz band. The proposed operations will advance Charter's understanding of emerging access technologies and network potential in millimeter wave band spectrum and will advance the potential deployment of fixed and mobile services.

Charter will conduct the proposed outdoor fixed testing within a radius of 2 km from the specified fixed location identified in the STA Form in Los Angeles, CA. These experiments will evaluate the use of 32 GHz spectrum for its use in point-to-multipoint access network capacity (*e.g.*, rate versus range) and data throughput.

Protection Against Interference

Charter understands it must accept RF interference from any federal and non-federal incumbent users of this band and that all Charter operations will be on a secondary basis. With regard to existing users, Charter identifies a portion of the band being used for the proposed testing (31.8-32.3 GHz) is co-primary allocated to the Space Research Service (deep space, space to earth) and the nearest facility that uses that frequency is in Goldstone CA – approximately 115 miles from the area in which Charter seeks to conduct testing. Charter has also confirmed there are no non-Federal licenses in the 32 GHz band. Charter will conduct its tests between the hours of 7 a.m. and 7 p.m., and Charter personnel will be present at all times during the testing.

Contact Information

Point of contact for FCC licensing issues:

Colleen King Vice President, Regulatory Affairs (202) 621-1921 colleen.king@charter.com

Point of contact for questions about testing operations:

PJ Jayawardene Sr. Director of Wireless Operations, R&D (847) 894 3972 pj.jayawardene@charter.com The following individual will be available 24/7 during all testing and has authority and ability to immediately cease all operations:

Mohamed Daoud Principal Engineer, Wireless R&D (312) 363-9864 Mohamed.Daoud@charter.com