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## **EXHIBIT 1 Response to Question 7: Purpose of Experiment**

Ericsson Inc. is a world leader in telecommunications. Ericsson has a long tradition of innovation that is founded in its strong commitment to the research and development of wireless technologies. To build on its engineering and research expertise, Ericsson established the Advanced Technology Lab at its U.S. headquarters in Plano, Texas. At its Advanced Technology Lab, Ericsson investigates the latest technologies in wireless and broadband communications.

Today, wireless technologies are advancing rapidly. Operators, consumers, and government organizations are searching for ways to provide users with higher bandwidth capabilities in mobile environments. What qualified as considerable bandwidth just yesterday is insufficient in many respects today. The number of users as well as the bandwidth required for public safety applications, consumer services, and enterprise services are spurring the search for more advanced and efficient technologies that are capable of satisfying ballooning bandwidth needs. Ericsson's Advanced Technology Lab plays a key role in this effort.

The proposed experiment will be for the development of backhaul technologies, interoperability testing between Ericsson and various third-party hardware, and analysis of small cell connectivity in a suburban/urban environment. To enable these tests, we would like to install a 23 GHz single hop microwave connection from a tower structure to a static pole, both located on Ericsson's Plano campus. This connection will provide an established backhaul technology for the above mentioned hardware interoperability and small cell testing.

If the proposed frequencies cannot be granted for any reason, we would request these alternate frequencies:

Alternate Frequency Pair 1: 21300-21340 MHz (Antenna 1) & 22500-22540 MHz (Antenna 2)

<u>Alternate Frequency Pair 2</u>: 21350-21390 MHz (Antenna 1) and 22550-22590 MHz (Antenna 2)

Alternate Frequency Pair 3: 21400-21440 MHz (Antenna 1) and 22600-22640 MHz (Antenna 2).

This investigation will test new ways to make more efficient utilization of the radio spectrum, which will provide significant benefit to the public at large. The experiment also tests new ideas about network design and deployment, as well as system optimization. The investigation therefore advances the radio arts. Ericsson believes the experiment will contribute to further understanding and advancement of radio communications.