

DESCRIPTION OF APPLICATION AND EXPERIMENT

T-Mobile License LLC (“T-Mobile”) hereby submits the attached application, requesting that the Commission renew its experimental authorization covering Fifth Generation (“5G”) wireless operations at locations in and around its Bellevue, Washington headquarters. Those operations are conducted under the call sign WI2XHR. The Commission initially issued this authorization on May 4, 2016, allowing T-Mobile to conduct experimental operations in and around its facilities in Bellevue, Washington. On July 19, 2017, the Commission issued a modified authorization for this station covering an increase in the Effective Radiated Power (“ERP”) of the authorized transmitters.

T-Mobile seeks renewal of WI2XHR in order to continue to conduct testing of the signal strength, transmission and reception characteristics and other parameters associated with using millimeter wave spectrum in its planned 5G network. Such testing will further advance T-Mobile’s understanding of 5G technologies and operations in the millimeter wave bands. T-Mobile plans to continue its operations on a secondary basis and mitigate any interference caused to primary users of the bands. T-Mobile requests that the Commission process the renewal application, permitting T-Mobile to continue its 5G research efforts.