

Description of Application

Itron, Inc. (“Itron”) requests an experimental license pursuant to Part 5 of the FCC’s Rules to authorize Itron to test electronic meter reading systems in the 169 MHz band.

Background

Itron manufactures and markets radio-based, advanced metering infrastructure (“AMI”) and smart grid systems that operate pursuant to Part 15, Part 90 and Part 101 of the FCC’s Rules. Through the use of these products, utility companies have automated their meter reading activities, thereby increasing efficiency and reducing administrative costs. Itron continues to develop new products and improve existing products to take advantage of new technology. As part of its normal product development processes, Itron must test these devices within its manufacturing facility and in the field to study performance of its AMI products under “real world” conditions.

Itron is also a global corporation, developing meter-reading products for use worldwide. Accordingly, Itron requests an experimental license in order to accommodate the development of equipment for foreign markets. Each band is discussed below. All antennas associated with such operation will be limited to less than 10 meters (33 feet) above ground level or above an existing structure. Itron is familiar with FAA requirements for notification of antenna structures and will act accordingly.

169 MHz Band

A small set of channels in this frequency band have been allocated for new advanced metering operations in Europe. In the US, the band is allocated and available for assignment to fixed stations in the Public Safety Pool or the Industrial/Business Pool, and also contains low power wireless microphone authorizations. Incumbent systems will be protected from harmful interference and device testing will be coordinated with the Public Safety entities in the vicinity of test sites.

Public Interest

Itron herein seeks an experimental radio authorization to support Itron's testing, development, and demonstration of AMI products for international markets. Itron's AMI systems apply a high-technology communications methodology to persistent problems of utility energy consumption and unnecessary facility construction.

Specifically, Itron's technical evaluation, field testing and demonstrations for which modified authority is requested herein will allow Itron to:

- test the performance of its meter reading systems in different types of meters to ensure device compatibility;
- test the performance of its meter reading systems (Itron will test propagation characteristics and develop operational guidelines);
- test the new technology's ability to overcome difficulties associated with the varying placement of utility meters;
- test alternative modulation techniques including direct sequence spread spectrum;
- test the viability and demand for various ancillary data collection services;
- evaluate the performance of new equipment in extreme environmental conditions; and
- test outage detection and related services to identify emergency situations critical to the utility industry.

Determining the degree to which utilities in various situations (such as described in this application) find Itron's meter reading solutions useful in solving problems associated with data collection, and are willing to purchase accordingly, will aid Itron in tailoring the system before the final product design and commercial rollout.