Mr. Chairman, members of the 34th Legislature’s Committee on Housing, Transportation and Telecommunications, senators, legislative staff, ladies and gentlemen, I am Roger Fraites, Chief Engineering Officer, RF Consulting, PSC and thank you for the invitation to appear before the 34th Legislature’s Committee on Housing, Transportation and Telecommunications this evening to discuss Liberty’s deployment of 5G technology in the Territory.

I obtained my bachelor’s degree in electrical engineering from the Interamerican University of Puerto Rico, School of Engineering, Bayamón campus in December 2000. I am an active member of the College of Engineers and Land Surveyors of Puerto Rico and hold a Professional Engineer license, number 19444.

I started my career as a radio frequency engineer in the wireless network engineering department of Centennial de Puerto Rico in January 2001. I was responsible for the design, deployment and integration of new sites of the network. In 2008 I established RF Consulting, PSC, and in late 2009, I left my position as RF Engineer II at Centennial de Puerto Rico and established myself as an independent consultant in the field of radio frequency (RF) safety.

My testimony before you this evening is oriented towards the subject of compliance with the Federal Communications Commission (FCC) regulations. All of the wireless network operators must comply with the Code of Federal Regulations (CFR) to maintain their respective licenses.

During the past thirteen years, I have performed over one thousand (1,000) RF exposure studies of existing and proposed telecommunication sites.
These RF exposure studies are performed using highly specialized equipment which measures electromagnetic energy exposure levels. After documenting exposure levels, they are evaluated against the current established limits. After this evaluation, a compliance determination is made. If the exposure levels were found to be below the established limits, the site is said to be compliant. On the other hand, if the exposure levels are above the limit, the site is said to be non-compliant.

I have witnessed the evolution of the wireless networks from the second generation up to today, which is known as 5G. During all these years, I have not seen any dramatic increase in exposure levels. It is my understanding that Liberty has a radio frequency safety program in place. The safety program establishes the guidelines to ensure all of the sites are compliant with the federal regulations. The guidelines include: periodic surveys to document exposure levels, engineering solutions to remediate any non-compliant site, and methods of procedures for working safely on telecommunications sites.

Mr. Chairman, once again, I appreciate the invitation and am open to questions regarding my testimony.