Dear Sirs.

I have worked in the broadband telecommunications industry starting in 1975 with the USAF, and hold a General Radiotelephone Operator License.(Formerly know as a First Class Radiotelephone License). I currently operate an ISP in rural Alabama. We currently provide dial-up service as well as broadband via wireless in the ISM band. I am located in the middle of a 4 or 5 county area that is served by an independent Telco. In my home county I am the only provider of broadband internet service. In the ajoining county I am one of two broadband service providers, both using wireless ISM band technology. I currently use 2.4GHz equipment to provide local delivery and use 5.8GHz equipment for backhaul and network backbone connectivity. I am also considering expanding into other areas within a 30 mile radius that have no broadband internet access. These are areas that are near larger towns (30-50 thousand population) but are outside areas that are served by conventional broadband service like cable and DSL. The possibility of additional frequencies lower in the spectrum will allow our company to provide service to customers that are within our current service area but are blocked by foliage. I presently am forced to turn down as many customers as I sign up, due to the propragation issues associated with the 2.4GHz and 5.8GHz bands. We are seeing the equipment manufactures move back to the 900MHz band in order to assist rural providers in delivering broadband in areas where foliage is a problem. From my point of view, the equipment providers will respond if the spectrum is available.

The addition of spectrum in the 700MHz band and higher transmitter power would allow current and future providers both rural and urban, the tools necessary to provide total coverage for a given service area. The advent of new protocols like OFDM that take advantage of multipath have helped in the urban areas, but are of no use in the rural areas where the problem is not multipath, but signal absorption by the foliage. The natural ability of the 700MHz band to penetrate foliage will permit more universal coverage in my service area. For example, one of my 2.4GHz cells is located at the center of the service area on the highest hill in the area and on a tower 170 feet above that hill. I have one or two customers that are 5-7 miles away (on a high hill with clear line of sight), the remainder of my customers are well inside that area and 90% are within 1-2 mile radius of that transmitter. I have many potential customers within that area that I have been forced to deny service to because of trees and other foliage. It is not realistic to expect customers to erect a small tower 70 feet tall just to get broadband internet service.

Current technology should allow provisioning of transmitters that would have the ability to scan a given spectrum and make frequency and power adjustments necessary to avoid interference to existing TV transmitters and their customers. A search of the FCC database show only 5 UHF TV transmitters within 100 miles of my location. The highest channel is CH 36 (602 MHz). This is a clear example where use of the upper UHF spectrum for “last mile” internet broadband service would not interfere with existing TV services. Use of this spectrum in this area would allow for much higher power than the 1 Watt limit on current unlicensed ISM equipment, without interference to existing services.

The use of the proposed 3650-3700 MHz band will also provide for additional spectrum for local distribution in certain area where the 2.4 and 5.8GHz bands are conguested and also in the future for point to point applications, as in backhaul and backbone networks. Congustion in these band could quickly become a problem as the ISM industry becomes more well known. I have a school system that is shown as a holder of a MMDS license in my county and they have just installed a 2.4GHz, point to multipoint system to connect the schools and the school board office. The technical person at the local school board was unaware that the county held those licenses, and now per the ISM band rules, must accept interference if it occurs in the 2.4 ISM bands.

I applaud the actions of the Commission in exploring the re-use of underused spectrum and the request for input from the public. I look forward to the use of the 700MHz spectrum should it become available. Not only will it allow this small business to grow, but it will allow more indivuals to receive broadband internet connectivity.

Thank you for the opportunity to comment on this issue.