



Statement by Julie Zoller

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before the United States House of Representatives

Energy and Commerce Committee

Subcommittee on Communications and Technology

February 2, 2023

Thank you, Chairwoman Rodgers, Ranking Member Pallone, Subcommittee Chairman Latta, Ranking Member Matsui, and Members of the Subcommittee. I am Julie Zoller, Head of Global Regulatory Affairs for Amazon's Project Kuiper.

I joined Amazon three years ago to work on Project Kuiper, a constellation of 3,236 satellites in low Earth orbit (LEO). Our mission is to deliver fast, affordable broadband to unserved and underserved communities in the United States and around the world.

We are proud to advance the space and satellite capabilities of the United States, and we appreciate the work by this committee, the Federal Communications Commission (FCC), and the whole of the government to ensure that the United States maintains its strong space leadership.

1. Background on Project Kuiper

Amazon is built around three big ideas: customer obsession, long-term thinking, and a willingness to invent. Kuiper is an example of how we bring those principles to life. We examined the need for broadband access and considered what we could invent to help customers beyond the reach of traditional wired and wireless solutions. Kuiper was the answer. With our ability to innovate and scale, we knew we could deliver an affordable, high-speed broadband solution to tens of millions of customers in unserved and underserved communities.

Amazon has made an investment of more than \$10 billion in Project Kuiper, and we've continued to invest in the infrastructure, people, and technology we need to deliver on our vision. We've assembled a team of world-class scientists and engineers; built a large R&D and production facility in Redmond, Washington; purchased more than 80 heavy-lift launches to deploy our constellation; and recently began construction on an advanced satellite manufacturing facility in Kirkland, Washington, giving us capacity to build up to four satellites per day.

Our satellites are designed to deliver broadband service with speeds, latency, and reliability on par with terrestrial networks and to provide this connectivity in rural and remote areas almost anywhere in the world. Our constellation will serve individual households, as well as businesses, schools, hospitals, government agencies, and other organizations, and provide backhaul solutions for wireless carriers to extend LTE and 5G service.

Not only are we working to invent and serve our customers, but we are thinking long term. This is why space safety and sustainability have been core tenets for us from day one, and our satellites have been designed and built to both operate safely in space and to demise quickly at the end of their lifetimes.

2. Kuiper Preparing for Deployment

It's an exciting time to be at Kuiper. The team is making incredible progress and hitting new milestones every day.

We have made major breakthroughs in customer terminals, which are small, high performing, and affordable. We will soon launch our first two prototype satellites on United Launch Alliance's (ULA) new Vulcan Centaur Rocket. The launches will allow us to test our technology including, networking, and sub-systems as we prepare for a full-scale deployment.

We also announced the largest commercial procurement of launch vehicles in history to deploy our constellation. Kuiper now stands to deploy its satellites with at least 60 launches with U.S. launch providers ULA and Blue Origin, and 18 launches with European provider Arianespace. These launch agreements will support thousands of suppliers and highly skilled jobs across 49 states in the U.S. and at least 13 countries in Europe.

These investments will also pave the way for new production and launch infrastructure in the U.S. and Europe. ULA is expanding manufacturing facilities in Alabama, and Northrop Grumman is increasing production and adding capacity in Utah for its solid rocket boosters. Due significantly to Amazon's investment in Project Kuiper, the U.S. will add more innovation to the launch marketplace and ensure U.S. leadership in launch services for the foreseeable future.

3. Importance of Reliable Satellite Rules

LEO broadband constellations are leading the unprecedented growth in the satellite industry. American companies are at the forefront, producing the majority of these new satellites in the United States. But the growth is straining the ability of regulators to process a wave of license applications under the current rules.

For its part, a bipartisan FCC, under Chairwoman Rosenworcel's leadership, has worked to update rules that promote innovation and the efficient use of spectral resources. The FCC has proposed rules that would provide more spectrum for non-geostationary satellite orbit (NGSO) services and greater clarity for spectrum sharing between NGSO systems. Not only will this ensure American leadership, but it will bring the benefits of investment, innovation, and choice to customers.

Outdated rules are also a challenge outside of the United States. Many of the International Telecommunication Union (ITU) rules for NGSO satellites favor incumbent technologies. At the World Radiocommunication Conference later this year, it is essential that the U.S. set forth key priorities to ensure that the rules for NGSO systems, and satellites more generally, support the success of this U.S.-led technology and service.

Amazon applauds the FCC's work to meet the needs of the satellite industry. The FCC recently created new offices that will prioritize the growing demands of the satellite industry and bring greater attention to the ITU's work.

Congressional attention on these matters, like today's hearing, helps ensure that the regulatory process supports continued innovation and increases opportunities to provide satellite internet broadband.

4. Conclusion

Satellite technology is advancing rapidly, and LEO systems will benefit countless people in the U.S. and across the globe that are beyond the reach of traditional wired and wireless networks. Congress and the FCC can safeguard this progress and ensure American leadership with policies and rules that promote innovation, competition, and affordable options for consumers. Thank you again to the committee for focusing on satellite policy and understanding that it's critical to get U.S. policy right. I look forward to your questions and appreciate the opportunity to share our views.