

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL
BEFORE THE
UNITED STATES SENATE
COMMITTEE ON COMMERCE, SCIENCE, AND TRANSPORTATION
OVERSIGHT OF THE FEDERAL COMMUNICATIONS COMMISSION
MARCH 2, 2016**

Good morning, Chairman Thune, Ranking Member Nelson, and members of the Committee. Thank you for the opportunity to appear before you along with my colleagues at the Federal Communications Commission.

Last week I spoke at the Mobile World Congress in Barcelona. It's a global gathering to discuss wireless technology and the good things we can do with this invisible infrastructure. The United States has led the world in deployment of the current generation of wireless technology, known as 4G. While we have only five percent of the world's population, we have one-third of all 4G deployment. But what I learned in Barcelona is that we have work to do to stay in the lead.

The good news is that wireless policy is front and center right now at the FCC. This month we will begin the world's first spectrum incentive auction. I know these matters are front and center for this Committee, too, as this week it will take up MOBILE NOW legislation. In light of this, I want to focus my statement today on three aspects of the future of spectrum policy.

First, the future of spectrum policy requires looking at millimeter wave spectrum. Today, the bulk of our wireless networks are built on spectrum below 3 GHz. But in the future we need to bust through this ceiling and look high—really high—to infinity and beyond. We need to explore spectrum above 24 GHz and even north of 90 GHz. At these high frequencies, propagation is a challenge. But we can turn this limitation into a strength if we combine these stratospheric frequencies with dense networks of small cells. This will enable us to deliver wireless speeds more than 10 times higher than what we have today. This approach will be a major force in the next generation of wireless services, known as 5G. The race to 5G is on—and our counterparts in Europe and Asia are already making progress. So it's essential that the FCC get going, by completing our outstanding millimeter wave spectrum rulemaking this year and leading the way with the 28 GHz band.

Second, the future of spectrum policy requires not just more licensed spectrum—but also more unlicensed spectrum. In short, we need more Wi-Fi. Unlicensed spectrum, like Wi-Fi, democratizes Internet access, encourages permissionless innovation, and is responsible for \$140 billion in economic activity every year. Historically, the legislative process has overlooked the value of unlicensed spectrum because it gets low marks in the scoring process at the Congressional Budget Office. But this accounting misses the mark—because the broader benefits of unlicensed spectrum to the economy are so great. So in any effort to increase the licensed spectrum pipeline, we need to explore a cut for unlicensed—call it the Wi-Fi dividend.

Right now at the FCC we have a golden opportunity for a Wi-Fi dividend in the upper portion of the 5 GHz band. Thanks to the encouragement of this Committee, we have a smart framework for testing this band for unlicensed use while also promoting vehicle safety. We need to work with our colleagues at the Department of Transportation and Department of Commerce and get this testing underway.

Third, the future of spectrum policy requires that we focus on the ground as much as on the skies. Spectrum gets all the glory. But the unsung hero of the wireless revolution is infrastructure. Because no amount of spectrum will lead to better wireless service without good infrastructure on the ground.

We can begin with Dig Once policies—which can pave the way for more broadband deployment by ensuring that when construction crews are building or repairing roads, broadband conduit is deployed at the same time. We should also take a comprehensive look at tower siting on federal lands—which make up as much as one-third of our national real estate. We can expedite deployment here by creating an open data inventory of infrastructure and standardizing the use of contracts from the General Services Administration.

At the same time, we need to think beyond traditional tower siting. 5G use of millimeter wave spectrum puts a new premium on small cells. To get this infrastructure in place we will need to find ways to harmonize municipal review by developing model practices and program alternatives.

If we do these things, we will create dramatic opportunities for new wireless technologies across the country.

Let me finish by highlighting that last point—not in technical terms, but in human terms. We have problems to solve, resources that are constrained, and communities that need help navigating what is possible in the digital age. But we are on the cusp of cars that drive themselves, streets that can be safer, commute times that can be cut, emergency services that are more effective, healthcare that is more personalized, and communities with more capability across the board because they are more connected.

There's evidence it's already happening. The city of Chicago is deploying wireless sensors to help solve problems before they occur—with childhood asthma, flash flooding, and street congestion. Coachella, California has made Wi-Fi available on its school buses to bridge the Homework Gap and help students who lack the connectivity they need at home do basic schoolwork. And wireless smart sewer systems have saved the city of South Bend, Indiana millions by providing real-time analysis of its wastewater.

These efforts are exciting. But they can be even bigger and bolder if we take forward-thinking steps with spectrum policy—and take them right now.

Thank you. I will be happy to answer any questions you might have.