

**STATEMENT OF
COMMISSIONER JESSICA ROSENWORCEL**

Re: *Revision of Part 15 of the Commission's Rules to Permit Unlicensed National Information Infrastructure (U-NII) Devices in the 5 GHz band, ET Docket No. 13-49.*

Look around. The wireless devices we pull to our ears, place in our pockets, tap on our laps, read with at night, and hover over our desks at day—they are multiplying. We own more of them, do more with them, and power more aspects of our lives with them than ever before. We are a nation whose every day depends on wireless connectivity. It is an essential part of our economic and civic life.

So it is no surprise that the demand for our airwaves is growing at a fast clip. But it is important to remember that the speed with which we face demand for our spectrum is not confined to licensed wireless services. Congestion in our unlicensed spectrum bands is fast approaching a breaking point, too.

Why does this coming crush in unlicensed spectrum matter?

For starters, the unlicensed economy represents economic growth. Today, unlicensed wireless devices contribute between \$16-37 billion to our economy annually. To put that in perspective, that is more than Americans spend on milk and bread each year, combined.

The unlicensed economy also represents innovation. Countless innovations that have made our lives easier and more convenient every day are dependent on unlicensed spectrum. If you have ever called on a cordless phone, changed the channel with a television remote, or pushed the button on a garage door opener, you have benefited from the power of unlicensed technology.

The unlicensed economy also represents a critical pathway for Internet connectivity. Today, more than one third of wireless data connections are offloaded onto unlicensed spectrum. Most of that traffic uses the 2.4 GHz band, which is also the home of countless other devices, like cordless phones, microwave ovens, and Bluetooth. Although the 2.4 GHz band continues to serve us well, it is becoming mighty crowded.

So it is no wonder that the search is on to find more spectrum for unlicensed services. It is a search that this Commission needs to support, consistent with the law. Because good spectrum policy requires both licensed and unlicensed services—across multiple spectrum bands.

The proposals we make in this rulemaking regarding the 5 GHz band are good first steps. These are ideas that can mean new near-term opportunities for unlicensed and long-term possibilities for expanding unlicensed down the road.

Let us start with what we can do today. This rulemaking explores how to synchronize the varying technical restrictions in place throughout the 5 GHz bands, while still respecting existing government and commercial users. In practice, this means working to expand to more 5 GHz frequencies the kind of flexible rules that have been the script for an unlicensed success story in the 5.725-5.825 GHz band. As a result of these flexible rules, cable operators right now use this band to offer Wi-Fi services at hotspots in their franchise areas, allowing consumers to take their broadband with them when they leave the house. This means consumers can save money and reduce congestion on licensed wireless networks. So we should explore whether or not restrictions impeding the expansion of unlicensed in other 5 GHz bands are still necessary. At the same time, this investigation can include asking whether parts of the 5 GHz band

are appropriate for other federal services. But once those questions are answered, we should not hesitate to remove limitations that are no longer needed.

Fast forward from what we can do now to what we may be able to do down the road. Consistent with the direction from Congress in the Middle Class Tax Relief and Job Creation Act, we are proposing to make an additional 195 megahertz in the 5 GHz band available for unlicensed use. These airwaves can be a colossal catalyst for new innovation, because it features enough continuous spectrum to unlock the full potential of a new Wi-Fi standard, 802.11ac. Undoubtedly, cool new ways of connecting await.

But as enticing as it is to be swept away by that future promise, we must deal with present realities. These 195 megahertz are occupied by federal users. The National Telecommunications and Information Administration reports that additional testing of this spectrum will take at least until the end of 2014. Plus, the types of uses that have been proposed in this spectrum will require resources like new databases, dynamic frequency selection, and transmit power control. In short, finding ways to share this 195 megahertz of spectrum without interfering with critical government missions may take a long time.

So I think it is necessary to start identifying ways to accelerate this process by incentivizing federal authorities to be more efficient with spectrum right now. To do this, we must look for ways that federal users can realize value from using spectrum efficiently instead of only seeing loss from its commercial reallocation. These incentives need not be purely financial. And the rewards do not have to come directly from the spectrum rights being released. Instead, the incentives can come from benefits in appropriations, budgeting, or through structured use of synthetic currency, as proposed by the President's Council of Advisors on Science and Technology.

When it comes to transitioning spectrum from strictly federal to new or shared commercial use, we need not only use sticks—we should explore carrots. I think the latter is bound to facilitate more opportunity in the 5 GHz spectrum—and beyond. Given the multiplying number of wireless devices in our lives and the growing demands on our airwaves—licensed and unlicensed—now is not a moment too soon.

Thank you to the Office of Engineering and Technology for your hard work on this rulemaking and great dedication to these issues.