

**Congress of the United States**  
**Washington, DC 20515**

April 11, 2014

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The Honorable Tom Wheeler  
Chairman  
Federal Communications Commission  
445 Twelfth Street, SW  
Washington, DC 20554

Dear Chairman Wheeler,

We are writing to you with respect to the Federal Communications Commission's implementation of the spectrum provisions of the Middle Class Tax Relief and Job Creation Act of 2012. Congress passed those provisions to achieve a number of important goals: 1) to provide \$7 billion in funding to build a nationwide, wireless, interoperable public safety network; 2) to meet consumers' ever-increasing demand for mobile broadband by repurposing television broadcast spectrum; and 3) to generate further auction proceeds to provide for significant reduction of the national debt. Of course, in order to meet the revenue goals, television broadcasters must be incentivized to give up some of their spectrum by being fairly compensated. Achieving these goals will be challenging for the Commission but absolutely critical for our nation.

As you may recall, the National Commission on Terrorist Attacks Upon the United States (also known as the "9/11 Commission") recommended the construction of a state of art communications network, however, twelve years later this has yet to be implemented. The construction and operation of this network will be essential when the next disaster strikes and our first responders are called upon to protect our homeland and save lives from either man-made disasters, such as the 9/11 attacks, or natural disasters like Hurricanes Sandy or Katrina.

Equally important is the country's ability to meet exploding consumer demand for new and more robust mobile broadband technology by providing the necessary spectrum. A recently-released survey by Cisco indicated that American demand for mobile broadband will increase by eight-fold over the next five years. The technology and wireless industries' ability to innovate and invest to meet this increasing demand will depend on the availability of spectrum to support new technologies. Private investment in hardware innovation, mobile application development, and wireless network infrastructure is one of the most promising sources of short and long-term economic growth for our country. There is little doubt that the success of the spectrum auction will have a significant impact for the United States economy given that so many industries rely on advanced, mobile and reliable communications to expand, hire and invest.

For the auction to be a success, the Commission should maximize participation by both broadcasters incented to relinquish their spectrum rights and bidders seeking to buy those rights

in the spectrum auction. In fact, inviting as many bidders as possible to compete in an open and fair auction on equal terms will allow for the full market price for spectrum to be realized and, in turn, lead to higher compensation to incent greater broadcaster participation resulting in more spectrum for the auction. This approach will also ensure sufficient funding for the construction of a world class, high-speed wireless broadband public safety network and make available the spectrum needed to keep pace with the nations mobile broadband needs and support a pro-growth economy.

Sincerely,

Benjamin M. Thompson

John Banner

Joetta Sanchez

Tomy Cardenas

Rail M. Hijdra

Patrick Murray

Grace S. Nepotitano

Daniel Lipinski

Wini Emyart

Mah fer

Paula Garcia

Aed Deutch

Corine Brown

Eliot L. Engel

M V O

Jamie Hahn

T. J. Z

J. Z.

JOHANN CASTRO

Rob A Brody

Joseph Crowley

Harford D. Brody Jr

BRIAN HIGGINS

Alan Kravson

Bradley Schinder

Y. K. Kispall

Mark Scott

Jim Ranzewicz

Dan Maffei

Jim V. Galt

Patricia Kelly

Y. Y. Y.

Paul D. Tomko

Bill Koney

Alvin Hastings

Jim Kehall

Gene Ais

Jim Mathison

Bruce Brady

John Vels

Frederica D. Wilson

Gene May

Joyce Beatty

C.A. Dutch Ruppelberg

Ray Curran

John Butterfield

Rddie Bernice Johnson

Paul King

Ken Barber

Kyrsten Sinema

Janny K. Davis

John B. Larson

Alan Lowenthal

John T. Hallego

Eric Swallow

Don R. Jr.

Tammy Duckworth

Cheri Baster

Les Frankel

Jenni Sewell

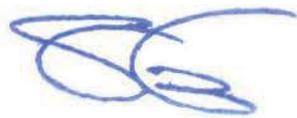
Mike Oringley

J. M. Cut

Ann Marie Foster

Margaret White

Yvette D. Clarke



Small E. Conolly



Kanabass

Tom U. Au

Ad Lewis

Joe Garcia

Bill Foster

Roy DeLano

Marcia J. Judge

Clu Webb

Nita M. Loney

Shirley Jackson

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Bennie G. Thompson  
John Barrow  
Ron Barber  
Karen Bass  
Joyce Beatty  
Timothy H. Bishop  
Sanford D. Bishop, Jr.  
Robert A. Brady  
Bruce L. Braley  
Corrine Brown  
Cheri Bustos  
G.K. Butterfield  
Tony Cardenas  
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Donna M. Christensen  
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Yvette D. Clarke  
Gerald E. Connolly  
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Danny K. Davis  
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James R. Langevin  
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Bradley S. Schneider  
David Scott  
Terri A. Sewell  
Krysten Sinema  
Albio Sires  
Eric Swalwell  
Paul Tonko  
Marc A. Veasey  
Filemon Vela  
Frederica S. Wilson



FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

OFFICE OF  
THE CHAIRMAN

April 17, 2014

The Honorable Tammy Duckworth  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Duckworth:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

Consistent with the Spectrum Act, all who want to participate in the Incentive Auction will be able to bid. At the same time, a priority of the auction should be to assure that companies that already possess low-band spectrum do not exploit the auction to keep competitors from accessing the spectrum necessary to provide competition. This is particularly important in rural areas where low-band spectrum is necessary if competitors are to fill in the blank white spaces on the coverage maps we see on TV commercials. Our authority to pursue this important objective was confirmed in the Spectrum Act.

Across our country, consumers and businesses expect to have access to wireless connectivity anywhere, anytime. Today, there are more connected devices than there are people in the U.S., and about 60 percent of Americans use data-hungry smartphones. This is a dramatic increase from just a few years ago.

With increased demand for wireless services comes an increased need for spectrum. But not all spectrum frequencies are created equal. Spectrum below 1 GHz, referred to as “low-band” spectrum, has physical properties that increase the reach of mobile networks over long distances at far less cost than spectrum above 1 GHz, while also reaching deep into buildings and urban canyons. While other cost-related factors exist, access to a sufficient amount of low-band spectrum is a threshold requirement for extending and improving service in both rural and urban areas.

This is not mere theory: just compare the attached coverage maps of the two largest national mobile wireless providers, which hold a combined share of almost two-thirds of all low-band spectrum licenses, to the other national providers, which hold a combined share of around 10 percent of all low-band spectrum licenses. Simply put, because of the better propagation properties of low-band spectrum, wireless providers holding more low-band spectrum licenses provide more rural coverage.

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<sup>1</sup> Proceeds from the Commission’s recent H Block auction, and AWS-3 auction, to be held later this year, will also be used to fund the PSTF for FirstNet. I expect that these two auctions will nearly or fully fund the PSTF with amounts needed for FirstNet, even before the Incentive Auction in 2015.

This fact is also reflected in the relative percentage of total land area covered by providers.<sup>2</sup> The following chart reflects January 2014 national data:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	52%	60%
National Provider #2	48%	56%
National Provider #3	12%	23%
National Provider #4	9%	14%

The following chart reflects the same data for Illinois:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	89.30%	91.13%
National Provider #2	71.15%	87.82%
National Provider #3	22.97%	72.71%
National Provider #4	18.37%	26.77%

The Commission’s 16th Mobile Wireless Competition Report issued last year estimated that 92 percent of non-rural consumers, but only 37 percent of rural consumers, are covered by at least four 3G or 4G mobile wireless providers networks. In order to expand networks’ reach, and thus consumer choice, in rural areas all wireless providers – from the largest national providers, to smaller regional and rural providers – must have a fair shot at accessing low-band spectrum.

Today, most of this low-band spectrum is in the hands of just two providers. The Incentive Auction offers the opportunity, possibly the last for years to come, to make low-band spectrum available to any mobile wireless provider, in any market, that is willing and able to compete at auction. I will shortly present a draft order to my fellow Commissioners designed to ensure that every mobile wireless provider has the opportunity to bid in every market, and that every consumer enjoys the benefits of a competitive wireless marketplace. My proposal would reserve a modest amount of this low-band spectrum in each market for providers that, as a result of the historical accident of previous spectrum assignments, lack such low-band capacity. This proposal will also contain safeguards to ensure that all bidders for reserved spectrum licenses bear a fair share of the cost of making incentive payments to broadcasters who voluntarily relinquish some or all of their spectrum usage rights.<sup>3</sup>

Designed with this equity and openness in mind, the Incentive Auction can deliver to consumers, regardless of their zip code, greater wireless competition, improved services, and lower costs, significant investments in America’s broadcasters to innovate and compete, and funding for the FirstNet public safety broadband network.

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<sup>2</sup> The national and state data on land area coverage represent a Commission staff analysis at the census block level, using © 2013-2014 Mosaik Solutions, LLC., January 2014 CoverageRight Data.

<sup>3</sup> The recent H Block auction did not include such a reserve. I also will recommend to my fellow Commissioners that there be no reserve for the upcoming AWS-3 auction.

Thank you again for apprising me of your views on this important matter. I look forward to working with you toward our mutual goal of a successful auction for the benefit of America's consumers, wireless providers, broadcasters and first responders.

Sincerely,



Tom Wheeler

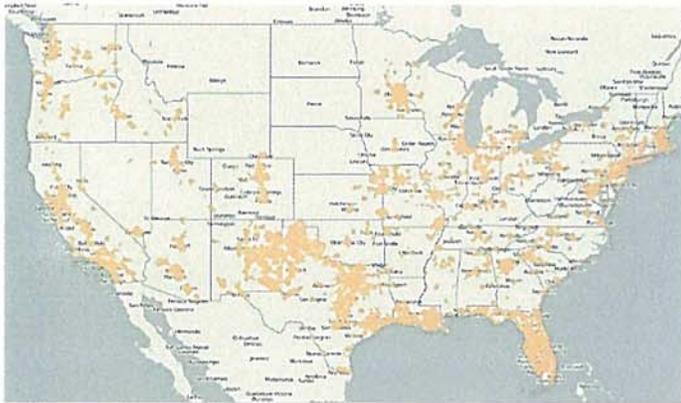
Enclosure

## NATIONAL BROADBAND MAPS COVERAGE COMPARISONS

NATIONAL MOBILE WIRELESS PROVIDERS CURRENTLY HOLDING NEARLY 2/3 OF LOW-BAND SPECTRUM LICENSES:



OTHER NATIONAL MOBILE WIRELESS PROVIDERS:





FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

OFFICE OF  
THE CHAIRMAN

April 17, 2014

The Honorable Eliot L. Engel  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Engel:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

Consistent with the Spectrum Act, all who want to participate in the Incentive Auction will be able to bid. At the same time, a priority of the auction should be to assure that companies that already possess low-band spectrum do not exploit the auction to keep competitors from accessing the spectrum necessary to provide competition. This is particularly important in rural areas where low-band spectrum is necessary if competitors are to fill in the blank white spaces on the coverage maps we see on TV commercials. Our authority to pursue this important objective was confirmed in the Spectrum Act.

Across our country, consumers and businesses expect to have access to wireless connectivity anywhere, anytime. Today, there are more connected devices than there are people in the U.S., and about 60 percent of Americans use data-hungry smartphones. This is a dramatic increase from just a few years ago.

With increased demand for wireless services comes an increased need for spectrum. But not all spectrum frequencies are created equal. Spectrum below 1 GHz, referred to as “low-band” spectrum, has physical properties that increase the reach of mobile networks over long distances at far less cost than spectrum above 1 GHz, while also reaching deep into buildings and urban canyons. While other cost-related factors exist, access to a sufficient amount of low-band spectrum is a threshold requirement for extending and improving service in both rural and urban areas.

This is not mere theory: just compare the attached coverage maps of the two largest national mobile wireless providers, which hold a combined share of almost two-thirds of all low-band spectrum licenses, to the other national providers, which hold a combined share of around 10 percent of all low-band spectrum licenses. Simply put, because of the better propagation properties of low-band spectrum, wireless providers holding more low-band spectrum licenses provide more rural coverage.

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This fact is also reflected in the relative percentage of total land area covered by providers.<sup>2</sup> The following chart reflects January 2014 national data:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	52%	60%
National Provider #2	48%	56%
National Provider #3	12%	23%
National Provider #4	9%	14%

The following chart reflects the same data for New York:

<b>Provider</b>	<b>4G % Total Area</b>	<b>3G/4G % Total Area</b>
National Provider #1	72.67%	85.49%
National Provider #2	60.54%	77.96%
National Provider #3	4.89%	35.51%
National Provider #4	10.43%	18.77%

The Commission’s 16th Mobile Wireless Competition Report issued last year estimated that 92 percent of non-rural consumers, but only 37 percent of rural consumers, are covered by at least four 3G or 4G mobile wireless providers networks. In order to expand networks’ reach, and thus consumer choice, in rural areas all wireless providers – from the largest national providers, to smaller regional and rural providers – must have a fair shot at accessing low-band spectrum.

Today, most of this low-band spectrum is in the hands of just two providers. The Incentive Auction offers the opportunity, possibly the last for years to come, to make low-band spectrum available to any mobile wireless provider, in any market, that is willing and able to compete at auction. I will shortly present a draft order to my fellow Commissioners designed to ensure that every mobile wireless provider has the opportunity to bid in every market, and that every consumer enjoys the benefits of a competitive wireless marketplace. My proposal would reserve a modest amount of this low-band spectrum in each market for providers that, as a result of the historical accident of previous spectrum assignments, lack such low-band capacity. This proposal will also contain safeguards to ensure that all bidders for reserved spectrum licenses bear a fair share of the cost of making incentive payments to broadcasters who voluntarily relinquish some or all of their spectrum usage rights.<sup>3</sup>

Designed with this equity and openness in mind, the Incentive Auction can deliver to consumers, regardless of their zip code, greater wireless competition, improved services, and lower costs, significant investments in America’s broadcasters to innovate and compete, and funding for the FirstNet public safety broadband network.

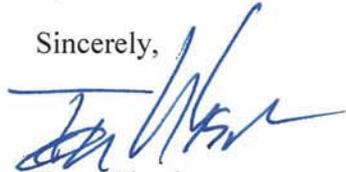
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Tom Wheeler

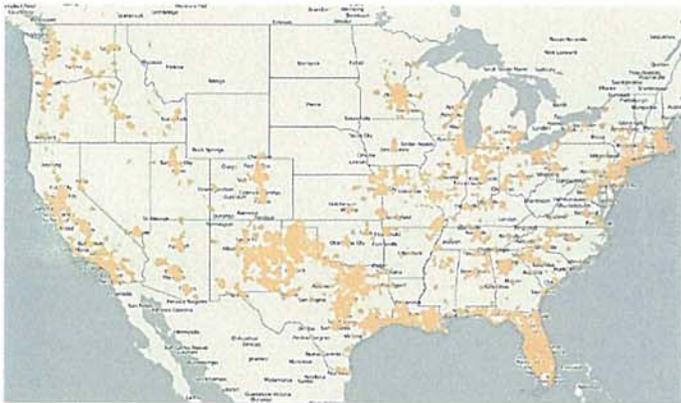
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OTHER NATIONAL MOBILE WIRELESS PROVIDERS:





OFFICE OF  
THE CHAIRMAN

FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

April 17, 2014

The Honorable William L. Enyart  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Enyart:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

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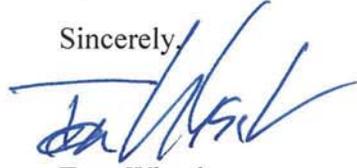
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Tom Wheeler

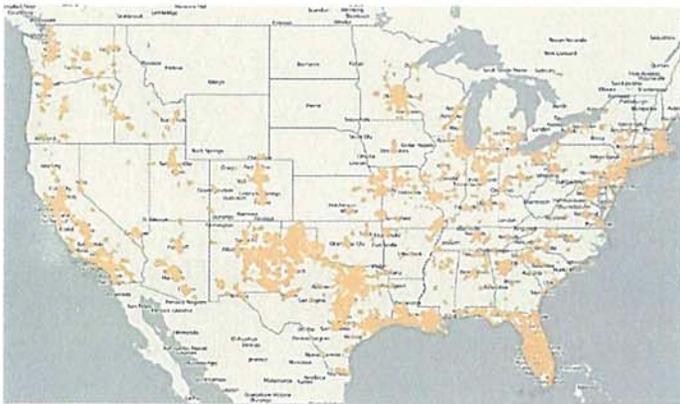
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FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON

OFFICE OF  
THE CHAIRMAN

April 17, 2014

The Honorable Chaka Fattah  
U.S. House of Representatives  
Washington, D.C. 20515

Dear Representative Fattah:

Thank you for sharing your views on the importance of the Spectrum Incentive Auction. The Incentive Auction is a once-in-a-lifetime opportunity to expand the benefits of mobile wireless coverage and competition to consumers across the Nation – particularly consumers in rural areas – offering more choices of wireless providers, lower prices, and higher quality mobile services, while also providing a game-changing financial opportunity to broadcasters and fully funding the Public Safety Trust Fund (PSTF) for FirstNet.<sup>1</sup> I agree that finding an approach that maximizes participation by both broadcasters and wireless providers in the auction is crucial to achieving these goals.

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