NCSL BROADBAND VIRTUAL MEETING SERIES: ACCESS AND EXPANSION

Expanding Broadband Opportunities in Rural America

NOV. 19, 2020
- Nov. 19 | Expanding Broadband Opportunities in Rural America
- Dec. 7 | Expanding Broadband for Education
- Jan. 2021 | Spectrum Licensing by the States
The National Conference of State Legislatures is the country’s most trusted bipartisan organization serving legislators and staff. We promote policy innovation, create opportunities for lawmakers to share knowledge and ensure state legislatures have a strong, cohesive voice in the federal system. We do this because we believe in the importance of the legislative institution and know when states are strong, our nation is strong.
Federal Communications Commission
Satellite Broadcasting & Communications Association
Charter Communications
Center on Rural Innovation
PRESENTATION TO NATIONAL CONFERENCE OF STATE LEGISLATURES

November 19, 2020

Susan Mort, Legal & Policy Advisor, Wireless Telecommunications Bureau

Jessica Quinley, Attorney Advisor, Wireless Telecommunications Bureau

* This presentation and its contents are for informational purposes only; the Commission’s rules in part 47 of the Code of Federal Regulations and the Commission’s previous Reports and Orders adopting those rules represent the binding rules and determinations of the Commission.
Spectrum Access for Rural Broadband

• FCC is promoting innovation in spectrum access in rural areas
  – 2.5 GHz Rural Tribal Priority Window
  – 3.5 GHz Citizens Broadband Radio Service

• Upcoming Auctions:
  – 3.7 GHz – bidding starts December 8, 2020
  – 3.45 GHz – slated for 2021
  – 2.5 GHz – slated for 2021
2.5 GHz Band

• Supports broadband in rural areas

• Higher power limits and lower frequency than other available spectrum means better propagation and fewer base stations, which should lower deployment costs

• Equipment compatible with 2.5 GHz spectrum is readily available “off the shelf” from a variety of vendors nationwide

• FCC modernized the band in 2019 to include Rural Tribal Priority Window and eventual auction of unassigned spectrum
2.5 GHz Rural Tribal Priority Window

- First-of-its-kind opportunity for federally recognized Tribes to obtain licenses to unassigned mid-band spectrum over their rural Tribal lands
- Window ran from February 3 to September 2, 2020 during which more than 400 applications were received
- To date, 157 licenses have been granted, with another 57 applications accepted for filing; others are being evaluated and processed
3.5 GHz Band

- Desirable combination of coverage and capacity, plus attractive propagation and channel width for rural areas
- Hybrid sharing regime managed by a Spectrum Access System
  - **Incumbent Access** – existing incumbents like Federal authorized users
  - **Priority Access** – licensed on a county basis via competitive bidding
  - **General Authorized Access** – open, flexible access for widest possible group of users
3.5 GHz Band Plan

Each PAL is a 10 MHz channel in the 3550-3650 MHz band. No more than seven PALs will be issued in any county. A licensee can aggregate up to four PALs channels in one county.
3.5 GHz General Authorized Access

- GAA Operations in the 3550-3700 MHz band are licensed by rule
- At least 80 megahertz in any given county available for GAA
- Can operate on any “unused” Priority Access License channels
- Non-exclusive use
- Access to GAA managed by Spectrum Access System
Resources

2.5 GHz Rural Tribal Priority Window:
https://www.fcc.gov/rural-tribal-window-updates

3.5 GHz:

Upcoming Auctions:
https://www.fcc.gov/auctions
Questions: PLEASE TYPE THEM IN THE CHAT BOX
Questions: PLEASE TYPE THEM IN THE CHAT BOX
Rural Broadband USF Auctions
Rural Digital Opportunity Fund
and the 5G Fund

NCSL
November 19, 2020
• USF provides support to carriers
• consumers in rural and high-cost areas have access to reasonably comparable telephone and information services
• 2011 Transformation Order fundamentally reformed the USF program to require that carriers receiving support provide not only voice but also broadband services
  - Commission also created a Mobility Fund to distribute support for mobile services through reverse auctions
  - Also proposed using competitive bidding to distribute support for fixed services
Rural Broadband Reverse Auctions

• **2011 USF Transformation Order**
  – Introduced new funding approach for price-cap areas using cost-model to identify high-cost areas and **competitive bidding** to allocate support
  – **Reverse auctions** are a formal process to determine what support a provider needs to extend service meeting program requirements to under-served or unserved areas (lowest bidder wins)

• **2012/2014 Mobility Fund I and Tribal Mobility Fund I**
  -- one-time single-round reverse auctions for extension of wireless voice and 3G or 4G broadband service
  -- $300M for Mobility Fund I, $50 M for Tribal Mobility Fund I
Initial Wireline Reverse Auctions

• **2014 Connect America Cost Model (CAM)**
  – Estimated cost of providing service and locations by census blocks
  – Identified census blocks with costs above a specified benchmark

• **2015 Offer of Model-Based Support to Price Cap Carriers**
  – 9 carriers accepted over $1.5 billion/year to serve 3.6M homes and businesses in their study areas by end of 2020 in 45 states & 1 territory
• Rural Digital Opportunity Fund (ongoing):
  ▪ Up to $20.4B over 10 years for fixed broadband and voice services
    o Phase I: up to $16B (Auction 904)
    o Phase II: up to $4.4B + remainder of Phase I budget
  ▪ Phase I auction starting on October 29, 2020 – 386 qualified bidders
  ▪ Performance tier and latency combinations weight bidding
• 40% of the required locations by the end of Year Three; an additional 20% by the end of Year Four and Year Five
• By the end of year six, revised location totals will be announced:
  – If there are more locations than originally estimated by the cost model, support recipients must serve the cost model-estimated number of locations by the end of year six and must serve the remainder of locations by the end of year eight
5G Fund

• $9 billion in two phases; multi-round reverse auctions to bring rural areas mobile voice and 5G broadband
• Phase Two focused on most rural areas and precision agriculture
• Pushing early expansion of mobile 5G in rural areas, based on the DODC data collection for better maps
5G Fund Details

- Eligibility by rurality vs. eligibility by coverage
- Adjustment factor to preference difficult terrain or economically impoverished rural areas
- Adopting performance and reporting obligations for legacy support recipients
Steven Hill
Satellite Broadcasting & Communications Association
Questions: PLEASE TYPE THEM IN THE CHAT BOX
Questions: PLEASE TYPE THEM IN THE CHAT BOX
Questions and Answers

Please type your questions into the chat box or raise your hand to ask your question personally.

Nov. 19 | EXPANDING BROADBAND OPPORTUNITIES IN RURAL AMERICA
NCSL BROADBAND RESOURCES

Go to:
www.ncsl.org or