The 5G Fund for Rural America:
Legacy High-cost Support Program Reforms

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At any point during or after this webinar you can email questions to:

5GFund@fcc.gov
Rural Broadband Auctions Overview

• Connect America Fund Phase II (completed):
  ▪ $1.48 billion over 10 years for fixed broadband and voice services

• Rural Digital Opportunity Fund (in progress):
  ▪ Up to $20.4 billion over 10 years for fixed broadband and voice services
    ○ Phase I: up to $16 billion (Auction 904)
    ○ Phase II: up to $4.4 billion + remainder of Phase I budget
  ▪ Phase I auction bidding commenced on October 29, 2020

• 5G Fund for Rural America (adopted):
  ▪ Up to $9 billion for 5G service in two phases
    ▪ Phase I: up to $8 billion
    ▪ Phase II: up to $1 billion + remainder of Phase I budget
  ▪ Phase II will support network deployments facilitating precision agriculture

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How Did We Get Here?

• 2011 USF Transformation Order
  • Introduced new funding approach for mobile high-cost areas using competitive bidding to allocate support
  • Froze and commenced 5-year phase-down of legacy mobile high-cost support

• 2012 Mobility Fund Phase I & Tribal Mobility Fund Phase I
  • Awarded one-time support for carriers to deploy 3G & 4G LTE services in unserved areas
    • Mobility Fund Phase I awarded $300 million in support for unserved/underserved areas
    • Tribal Mobility Fund Phase I awarded $50 million in support specifically for Tribal areas

• 2014 Legacy Mobile High-cost Support Phase-down Paused
  • Phase-down of legacy mobile high-cost support was paused at 60% of the frozen level because FCC had not yet implemented Mobility Fund Phase II

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• **2016 Working Toward Mobility Fund Phase II Staff Report**
  • Staff analyzed and issued a report detailing the extent of 4G LTE coverage and the misallocation of legacy mobile high-cost support:
    • Up to 75% of legacy high-cost support may be misallocated, and
    • Only 20% of the country lacked unsubsidized 4G LTE service
  • Report concluded that mobile carriers receive approximately $300 million each year in subsidies to provide service even though those subsidies are unnecessary to ensure the availability of 4G LTE in subsidized areas

• **2017 Mobility Fund Phase II Established**
  • FCC established the framework for the Mobility Fund Phase II auction to award up to $4.53 billion in support for carriers to deploy 4G LTE service
  • Areas eligible for support: places that lacked unsubsidized 4G LTE service with minimum speeds of 5 Mbps as reported through one-time collection of data generated using standardized propagation modelling parameters

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• 2018 Mobility Fund Phase II Challenge Process
  • Carriers and state, local, or Tribal governmental entities could challenge accuracy of coverage data during a window to file challenges
    • Challenges adjudicated as successful would make eligible otherwise ineligible areas
    • Challengers required to conduct and submit speed tests showing download speeds < 5 Mbps using carrier-approved handsets

• 2019 Mobility Fund Phase II Coverage Map Investigation Report
  • Staff launched an investigation of whether major carriers violated the mapping rules in light of challenges and evidence submitted in the record
  • Staff conducted drive tests in 12 states to evaluate coverage data accuracy
  • Staff report concluded that 4G LTE coverage data submitted by three major carriers did not match actual coverage in many cases
  • Report recommended terminating Mobility Fund Phase II challenge process
• In October 2020, the Commission adopted the 5G Fund for Rural America to replace Mobility Fund Phase II

• Up to $9 billion in support over 10 years
  • High-cost support to serve areas with voice and 5G mobile broadband service

• Two-phased auction approach
  • Phase I: award support to deploy to areas that will not see timely 5G service absent funding based upon collection of new coverage data (up to $8 billion)
  • Phase II: award support to deployments that facilitate precision agriculture, as well as any areas unserved after Phase I auction (remainder of $9 billion)

• Multi-round, reverse clock auction format, similar to CAF Phase II and Rural Digital Opportunity Fund Phase I auction formats
Changes to Legacy High-cost Support

• The 5G Fund R&O also adopted changes to the legacy high-cost support program that will take effect beginning January 1, 2021

• Legacy high-cost support only provided to mobile competitive ETCs

• Freeze remaining unfrozen high-cost support at 2020 levels

• 5G broadband public interest obligations for legacy support recipients
  • Carriers must use an increasing percentage of legacy support on the deployment, maintenance, and operation of networks that support 5G
  • 5G deployments must meet specified performance requirements
  • Legacy support recipients must submit initial and annual reports on their current service offerings
  • Staff will propose and, after notice-and-comment, adopt carrier-specific 5G deployment coverage requirements for legacy support recipients

• Geographic flexibility in the use of legacy support for carriers that have multiple study areas (directly or via affiliated competitive ETCs)

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• Legacy support recipients must spend an increasing percentage of support on 5G service as a new broadband public interest obligation:
  • 2021 requirement: at least 1/3\textsuperscript{rd} of legacy support
  • 2022 requirement: at least 2/3\textsuperscript{rd} of legacy support
  • 2023 requirement and thereafter: all legacy support

• Legacy support recipients that cannot meet the 2021 support usage requirement may avail themselves of support usage flexibility
  • Competitive ETCs taking advantage of such flexibility must proportionally increase the amount they spend in 2022 to make up for any shortfall in 2021
  • Additionally, carriers must file a certification with WCB early next year to take advantage of this flexibility

• Support must be used for the deployment, maintenance, and operation of mobile networks that provide voice and broadband data services meeting the 5G-NR technology standard and that meet performance requirements

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• For example, assume a competitive ETC receives $12 million per year in legacy high-cost support:
  • 2021 requirement: at least $4 million (1/3\textsuperscript{rd} of $12 million)
  • 2022 requirement: at least $8 million (2/3\textsuperscript{rd} of $12 million)
  • 2023 requirement and thereafter: $12 million
• If its 2021 budget is already largely set and the competitive ETC can only spend $2 million of its 2021 legacy support on 5G:
  • Actual 2021 support usage: $2 million
  • 2022 requirement: at least $10 million
  • The carrier must also submit a certification to WCB indicating how much it will spend in 2021 and certifying that it will make up the shortfall in 2022

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The Commission directed staff to analyze the amount of legacy support each competitive ETC receives and determine carrier-specific 5G deployment coverage requirements.

- OEA/WCB will propose and seek comment on coverage requirements and service milestone schedules for each legacy support recipient, including whether to adopt any *de minimis* exceptions to these requirements.

Legacy support recipients must meet other public interest obligations:

- Allow reasonable collocation by other carriers on cell-site infrastructure constructed with universal service support.
- Comply with the Commission’s voice and data roaming obligations.
- Offer services at rates reasonably comparable to those offered in urban areas.

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• 5G services provided using legacy support must meet minimum baseline performance requirements:
  • 5G-NR (3GPP release 15+ or any subsequent release adopted by WCB/OEA)
  • Data speeds: median of 35 / 3 Mbps with \( \geq 90\% \) of measurements recording at least 7 / 1 Mbps
  • Latency: 100 milliseconds or less
  • Data allowance: at least one service plan with a data allowance equal to the average U.S. subscriber data usage as specified by OEA/WCB

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Legacy Support Reporting Requirements

• Initial report of current service offerings (3 months after PRA approval):
  • Information about the carrier’s current service offerings, including:
    • The highest level of technology deployed,
    • The target date for 5G broadband service deployment, and
    • Estimate of the percentage of area covered by 5G deployment
  • Accounting for how legacy support has been used for the previous 12 months
  • Detailed cell-site infrastructure information
  • Certifications about submission of deployment data and compliance

• Annual reports (July 1 of each year after submission of initial report):
  • Updated information about the carrier’s current service offerings
  • Accounting of how legacy support has been used for the prior calendar year
  • Updated cell-site infrastructure information
  • Certifications about submission of deployment data and compliance

• Service milestone reports

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Transitioning from Legacy High-cost Support

• The 5G Fund R&O also adopted a schedule to complete the reform of legacy high-cost support begun in the 2011 *Transformation Order*.  

• The transition of legacy support to 5G Fund support will be broadly similar to the schedule adopted for Mobility Fund Phase II:  
  • Legacy support will be phased down over 2 years in areas not eligible for 5G Fund support after map of final eligible areas is released.  
  • Legacy support will be phased down over 2 years for a recipient that is not the winning bidder for its subsidized area.  
  • Legacy support will be maintained for up to 5 years for one recipient in eligible areas not won in a 5G Fund auction.

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## Legacy Support Transition Schedule

<table>
<thead>
<tr>
<th>Eligibility</th>
<th>Auction Result</th>
<th>Bidder or Recipient Status</th>
<th>Support Type &amp; Timing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ineligible</td>
<td></td>
<td></td>
<td>2-year phase down commences after release of final eligible areas</td>
</tr>
<tr>
<td>Eligible</td>
<td>Won in auction</td>
<td>Carrier is the winning bidder but does not receive legacy support for the area it won</td>
<td>5G Fund support commences after auction close and bidder is authorized</td>
</tr>
<tr>
<td>Eligible</td>
<td>Won in auction</td>
<td>Carrier is the winning bidder and is a legacy support recipient for the area it won</td>
<td>Legacy support ceases and 5G Fund support commences after close of the auction and bidder is authorized for area</td>
</tr>
<tr>
<td>Eligible</td>
<td>Won in auction</td>
<td>Carrier is a legacy support recipient but is not the winning bidder in the area for which it receives support</td>
<td>Legacy support ceases and 2-year phase down commences after auction close</td>
</tr>
<tr>
<td>Eligible</td>
<td>Not won in auction</td>
<td>Carrier is a legacy support recipient but does not receive the minimum level of sustainable support for the area for which it receives support</td>
<td>Legacy support ceases and 2-year phase down commences after auction close</td>
</tr>
<tr>
<td>Eligible</td>
<td>Not won in auction</td>
<td>Carrier is a legacy support recipient and receives the minimum level of sustainable support for the area for which it receives support</td>
<td>Legacy support continues for no more than 5 years</td>
</tr>
</tbody>
</table>

Questions? Please email: [5GFund@fcc.gov](mailto:5GFund@fcc.gov)
Disaggregation of Legacy Support

• After the Commission releases the final map of areas eligible for 5G Fund Phase I support, legacy support will be disaggregated
  • In areas eligible for 5G Fund support, legacy support recipients will continue to receive legacy support until at least the close of the Phase I auction
  • In areas ineligible for 5G Fund support, legacy support will be phased down over 2 years (2/3rd of support in year one and 1/3rd of support in year two)

• The Commission will determine the areas eligible for the 5G Fund Phase I auction based on new mobile coverage data (i.e., “Option B”)
  • Coverage data will be collected via the Digital Opportunity Data Collection
  • Areas that lack unsubsidized 4G LTE coverage and that lack unsubsidized 5G coverage will be eligible for support

Questions? Please email: 5GFund@fcc.gov
The 5G Fund auctions will use a descending clock auction design with competition between bidders and between areas.

- This design uses a single clock price that decreases in each round.

- Bids are a commitment to provide service to eligible areas within the minimum geographic area for the area’s support amount in a round.
  - Support amount for each area is calculated by multiplying the adjusted square kilometers eligible for 5G Fund support by the auction clock price.

- The Commission will determine the minimum geographic area for bidding during the pre-auction process.
  - Areas will be no smaller than Census Block Groups and no larger than Tracts.

- Auction will close after total requested support is below the budget and there are no more competing bids.

- Both Phase I and Phase II will use the same auction design.

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Areas eligible for 5G Fund support will include an “adjustment factor” to account for the relative differences in costs between areas with different terrain and different business cases for 5G

- Areas with more mountainous terrain or less of a business case will have a greater weight than areas with flat terrain or a greater business case

The 5G Fund will incorporate this adjustment factor for bidding and for the disaggregation of legacy high-cost support

- The total square kilometers of an eligible area will be multiplied by the area’s adjustment factor value to determine its adjusted square kilometers

November 2020: staff adopted adjustment factor values informed by three economic models
5G Fund Public Interest Obligations

• 5G Fund support recipients will be required to deploy 5G broadband service similar to the requirements for legacy support recipients
  • 5G broadband service defined as 5G-NR (3GPP release 15 or later)
  • Minimum data speeds of 35 / 3 Mbps and 100 milliseconds or better latency
  • Data allowance corresponding to the average U.S. subscriber data usage
  • Rates charged reasonably comparable to urban rates
  • Collocation and voice / data roaming requirements

• 5G Fund support recipients will similarly be required to submit reports on their compliance with their respective public interest obligations and progress of 5G service deployment

Questions? Please email: 5GFund@fcc.gov
• 5G Fund support recipients must deploy 5G service meeting the adopted performance requirements by service milestones:
  Year 2: coverage of at least 20% of eligible areas within a state (optional)
  Year 3: coverage of at least 40% of eligible areas within a state
  Year 4: coverage of at least 60% of eligible areas within a state
  Year 5: coverage of at least 80% of eligible areas within a state
  Year 6: coverage of at least 85% of eligible areas within a state; and
    coverage of at least 75% of eligible areas within the minimum geographic area for bidding (e.g., census block group or census tract)
• 5G Fund support recipients will be required to demonstrate compliance with these public interest obligations by conducting speed tests through a portion of the areas to which they deploy 5G
The 5G Fund Report and Order can be downloaded on the 5G Fund web site: https://www.fcc.gov/5g-fund/

After this webinar, general inquiries about the 5G Fund can be directed to: 5GFund@fcc.gov

Questions?