

Federal Funding For Rural Broadband

If you're wondering which rural broadband funding programs to apply for – or which will solve the rural broadband problem – here's a brief primer.

By Jonathan Chambers / *Conexon*

Over the past decade, federal programs that support broadband have adopted various approaches to determining who gets funding where: grant applications, auctions, portable consumer subsidies and legacy subsidies for incumbent telephone companies. The following is a primer on the five largest sources of federal funds for rural broadband and the mechanisms currently in place.

CAF II AUCTION

Amount: Up to \$198 million per year over a 10-year period

Geographic Area: High-cost census blocks unserved by 10/1 Mbps in price-cap carrier (for example, AT&T) areas in which the price-cap carrier turned down a statewide offer of funding, a census block was part of the 1 percent of the country deemed too costly to fund through the offer to price-cap carriers, or a bidder in the rural broadband experiment auction provided the FCC with additional information demonstrating an interest in participating in the CAF II auction

Process: The FCC will conduct a national, multiple-round, descending clock auction in two stages in which competing bidders commit to make available to locations in census block groups voice and internet service at a level ranging from 10/1 Mbps to gigabit service.

Comment: Now that we've entered the quiet period for the CAF II auction, let me just wish

good luck to all bidders. More important, I wish all rural Americans living in the eligible areas the good fortune of having a gigabit tier bidder rather than a 10/1 Mbps bidder win in their service area. Someday, I hope rural Americans get to make their own decisions about the appropriate level of service wherever they live instead of relying on the vagaries of an auction. The FCC has worked for years to put this auction together, and Chairman Pai and his staff deserve credit for getting the job done.

OMNIBUS APPROPRIATIONS: RURAL BROADBAND PILOT

Amount: \$600 million in loans and grants administered by RUS

Geographic Area: Areas in which at least 90 percent of the households do not have access to 10/1 Mbps (a threshold that may be reevaluated annually)

Process: TBD

Comment: With a new administrator who was CEO of the electric co-op that launched the first gigabit service in rural America, RUS has an opportunity to demonstrate it knows rural broadband. My recommendations on program structure are as follows:

First, make funding available only in rural areas where federal funds are currently not spent and not available. In most of rural America, the FCC administers universal service programs that already make funds available, which includes the

areas of the CAF II auction. RUS should not duplicate the FCC's funding but rather target those areas FCC programs miss. For example, areas in which the FCC Form 477 data is inaccurate has left large parts of rural America without service and without funding. After the CAF auction is finished later this year, those areas without a winning bid will be without service and without funding and could also become part of the RUS eligible areas.

Second, the determination as to whether a household has access to 10/1 Mbps or higher speeds should be a measure of actual throughput, not advertised speed. The National Broadband Map overstates internet access in rural areas by using data that shows advertised speeds to a single location in a census block. That data will be of limited value in determining unserved areas for this RUS program. RUS should be open to statistically

valid demonstrations that actual speeds to households are less than 10/1 Mbps. RUS should also determine the availability of internet access service in urban and suburban areas. Currently, most Americans have access to 100 Mbps service, not 10 Mbps. In future years, this program should be used to ensure that rural areas have access to service *comparable* to the rest of the country. A rural program run by the Rural Utilities Service should not adopt the soft bigotry of low expectations.

Third, as a precondition for any award, an applicant should demonstrate a 30 percent presubscription rate of the households in the areas in which the applicant seeks funds. If consumers will not commit to a service, RUS risks wasting the public's money. In an FCC proceeding last year, one of the satellite providers stated that it was impossible to achieve a 30 percent market share for its services. Every project Conexon has

ever worked on reaches that threshold within two years. Without that level of subscribership, most projects will not be sustainable. To protect the public's investment, RUS should require a demonstration that consumers want what a provider has to offer.

Fourth, RUS could get the most bang for the public's buck by awarding funds that request a combination of loans and grants to the applicants that seek the highest level of service for the least amount of public funds per household. In that way, RUS can make awards on a purely objective basis and remove the pernicious effects of politics on government spending. RUS could stage the funding by awarding the first \$200 million to those that would reach the most rural households based on the cost of public funds per household. Then, it could follow that by awarding \$200 million to another set of applicants, and then a final

New Fully-Integrated Excess Fiber Buildings at Deep Discounts



- 12' x 30' x 9' unused fiber buildings
- Huts include electrical, mechanical, infrastructure integration, technology equipment, (4) 6-ton high efficiency HVAC units, and 400 AMP single phase electrical service
- TE NGF Frames
- Installed integration equipment includes Eltek 600 AMP/48V DC power system

Complete your fiber project quickly and under-budget.
Call Mike Pottebaum at Thermo Bond Buildings today.

800-356-2686



Thermo Bond Buildings, LLC | P.O. Box 445 - 109 E. Pleasant | Elk Point, SD 57025 | www.thermombond.com



\$200 million. By using an objective measure, RUS could award the funds more quickly than by using its current process for broadband funds.

Finally, RUS should recognize that telephone companies and electric co-ops build broadband networks differently. RUS should not require electric co-ops to follow telephone company standards any more than telephone companies should be required to follow electric co-op standards. The stated purpose of the program is access to broadband, not telephone service, and electric co-op broadband should be evaluated by people familiar with electric co-ops.

REMOTE AREAS FUND (RAF)

Amount: TBD

Geographic Areas: Census blocks unserved by 10/1 Mbps that do not attract winning bids in the CAF II auction

Process: The FCC first identified the RAF as the 1 percent of census blocks that, according to the Connect America Cost Model, will be the most expensive to serve. To date, no funds and no concomitant obligations have been offered to any company for serving these areas. The areas were added to the CAF II auction, and the funding for the areas was capped below the cost model calculation. These areas comprise the largest part of the auction in terms of reserve price (more than \$4 billion) and are the most likely to remain unserved, unbid and unfunded after the auction. The FCC's current intent is to add to the RAF all areas unfunded in the auction. How the FCC will attract providers to areas that attracted no winning bids is the puzzle.

Comment: Still untried by the FCC for the RAF is a mechanism for portable subsidies. I have long advocated for portable subsidies similar to those used successfully in other programs, and the long-suffering RAF might be the best place to try them in the FCC's high-cost program.

Make such support available to all internet service providers (ISPs) that are certified in states as eligible telecommunications carriers (ETCs). The count of each ETC's subscribers should include only broadband service and should be limited to one subsidy per location, similar to the limitation of the Lifeline program to one subsidy per household.

Any ISP could win back a customer it loses and thereby win back the subsidy amount. This will encourage ISPs to continue to improve service offerings even in rural areas and allow public funds to follow ongoing consumer decisions, rather than preset government decisions. Whether the service chosen is fiber-based, copper-based, wireless (fixed or mobile), satellite, drone or balloon, the FCC would get out of the business of determining the type of technology and attempting to compare the relative weights of technologies.

CAF III

Amount: \$1.6 billion per year

Geographic Area: High-cost price-cap carrier service territories

Process: In 2015, the FCC offered price-cap carriers six years' worth of funding over a five-year period to make available 10/1 Mbps throughout the high-cost areas in each state. That funding ends in 2020 and will be replaced by a competitive bidding process. The FCC may well use the CAF II auction format, adjusting the definition of unserved and applying lessons learned from the CAF II auction process.

Comment: By the time of the CAF III auction, the FCC will have spent \$10 billion of the public's money for 10/1 Mbps service in price-cap territories. The current FCC notion is to then hold an auction while providing the price-cap carriers with a safe landing of an additional year's worth of funding in case they don't win at auction.

I have advocated for auctions, helped enact the legislation that provided the FCC with auction

authority, helped design auctions and participated in auctions for more than 25 years. If the CAF II auction is successful, I would understand the move to a CAF III auction. But I think moving to a portable subsidy mechanism in the price-cap territories may be easier and of greater benefit to the public. It would have the benefit of drawing competitors into rural areas without abruptly disrupting rural support for price-cap carriers.

RATE-OF-RETURN AND ACAM-BASED HIGH-COST PROGRAM

Amount: The FCC's largest rural program at more than \$2.2 billion annually for an indeterminate period of time

Geographic Area: Rate-of-return carrier study areas

Process: Still mostly a legacy program to support small rural telephone companies for the provision of voice service, the program has slowly been in transition as the FCC attempts various carrots-and-more-carrots approaches to tease out 4/1 or 10/1 or 25/3 Mbps service. The funding mechanisms are complex, closer to a regulatory accounting art form than a set of business decisions. In essence, this is a political program more than an economic program – it has more money per household than any other FCC program and more support from Congress than any other FCC program.

Comment: Though I prefer that the subsidies be portable, I still live in the real world. If the FCC cannot make the subsidies portable, at least these public funds should not be spent in areas where another service provider offers gigabit service without the benefit of government subsidies. Could that approach get a majority of FCC votes? ❖

Jonathan Chambers, formerly chief of the FCC's Office of Strategic Planning, is a principal of Conexon, which works with rural electric membership cooperatives to bring fiber to the home to rural communities. Contact him at jonathan@conexon.us.