

# Rural Broadband: Dividing the Spoils

Do you hope to serve a rural area that already has some broadband service?  
Work around it. Literally.

By Steven S. Ross / *Broadband Communities*

**L**ong-suffering rural broadband advocates can now expect at least \$500 million a year in loans and grants for the next five years, targeted to the hardest-to-serve rural areas through new programs administered by the Rural Utilities Service (RUS) and the Federal Communications Commission (FCC). But the money comes with some tough-to-meet conditions, discussed in “New Funding for Rural Broadband” (p. 34).

The FCC is offering 10-year subsidies totaling up to \$200 million a year from the Connect America Fund (CAF) to almost any organization willing to serve slivers of neglected territory, using a reverse auction process. The first winners were announced this summer in the CAF II auction. Only about half the money was allocated, much of it to satellite providers. Thus, I expect another auction round next year.

## RECONNECT FUNDING

The RUS plans to start releasing grants and loans in spring 2019 from \$600 million included in the March 2018 omnibus appropriations bill. (The farm bill will add another \$350 annually for five years.) The program, confusingly called ReConnect (short for Rural eConnectivity), is aimed at areas that have little or no broadband connectivity. A service area in which more than 10 percent of premises have access to fixed terrestrial broadband of at least 10 Mbps downstream/1 Mbps upstream does not qualify for the program at all, according to the rules

set by Congress. To be eligible for a pure grant under the program, an area must be totally unconnected.

An area that has only direct-to-subscriber satellite or cellular service is not considered served, even if speeds exceed 10 Mbps/1 Mbps. Similarly, direct-to-subscriber satellite and cellular services do not qualify for ReConnect funding. However, one unusual type of satellite service – a terrestrial network that uses a satellite base station – does qualify for funding as long as it can serve all users simultaneously with 25 Mbps/3 Mbps bandwidth, offers “reasonable service plans” and does not have usage caps.

ReConnect funding for service areas of current CAF II recipients can be requested only by the entity that is receiving the CAF II support and is limited to loans. It is unclear whether such double-dipping will be allowed for future CAF recipients, as FCC Commissioner Michael O’Rielly is opposed and as CAF can subsidize operating expenses and ReConnect cannot. Areas for which providers previously received state funds to deploy broadband with at least 10Mbps/1 Mbps service are ineligible for ReConnect funding, although it appears that state grants may be used for the 25 percent equity match required for ReConnect grant funds.

Although the FCC allowed well-funded new entities to bid for CAF II funding, the RUS requires two years of financial history to prove

its financial strength. If multiple entities apply jointly, each must provide two years of financials and pledge some specific assets to the newly formed applicant. As mentioned earlier, grant applicants must provide a 25 percent match.

## STRATEGIES FOR DEPLOYMENT

One would think all these restrictions, which existing carriers lobbied for, would deter a lot of potential competitors. But already I hear about rural folks planning creative end runs around the ReConnect rules. Some of these end runs even include the participation of national carriers. A few examples:

- **Reverse cherry-picking.** A new competitor in a given area can join forces with an existing incumbent local exchange carrier (ILEC), competitive local exchange carrier (CLEC), fixed wireless ISP or franchise cable operator to combine multiple underserved contiguous areas in which the existing operator provides less than 10 Mbps/1 Mbps service. These are probably outlying areas around minimally served small communities that, if included, would keep the outlying areas from qualifying for funds. The joining entities will be able to show financials. The new joint entity will be separate but wholly owned, most likely a CLEC.

This reverse cherry-picking strategy may even work for a 5G deployment, as 5G is currently considered a fixed, not a cellular, technology. In this arrangement, a local company partners with a national cellular carrier to deploy 5G and associated backhaul. The local carrier benefits because it won't be stuck providing low-margin dark fiber to someone else's 5G microcell. The national carrier benefits because it can share the 5G microcell sites and efficiently use all the spectrum available to either party and because the RUS subsidizes the backhaul network. The local company may have to give up its right (and obligation) to provide landline and/or video service in an area that it isn't serving well anyway.

- **Cellular cooperation.** Small unserved or underserved towns have proposed to build large cell towers, rent them to national cellular carriers and share the new fiber backhaul with the carriers. With an anchor tenant assured and with ReConnect loans or grants, the town can then build a fixed network to its homes and businesses. A typical large tower can be built for well under \$1 million. Leasing space to carriers saves them significant legal costs and zoning battles. Often, national carriers have fiber trunk within reach but would charge local communities a hefty premium to connect. The carriers could exchange that premium for access to customers at a low cost. Cellular carriers likely don't have to worry about competition from the new entity because ReConnect doesn't subsidize cellular service. (However, the new entity may have to account for cellular competition in its business plan if improved cellular service leads to more smartphone-only customers.) The one deal of this type I've seen envisions fiber and point-to-point wireless backhaul, some of it reaching 5G microcells as they are deployed.
- **Regionalization.** Regional or municipal carriers can cooperate among themselves, and even with a national

carrier, to build cell sites and share backhaul. A key advantage for the local interests is having more control over 5G siting than exists under FCC rules promulgated last year. The big disadvantage is that every entity will have to supply two years' worth of germane financials for the RUS or existing asset evidence for the FCC. As FCC funding is theoretical and the RUS is ready to go, I've seen only possible RUS applications.

- **Health care play.** Many underserved areas are desperate for medical care and assisted living or nursing facilities. The FCC is committed to increasing the funding for telemedicine it already provides with Universal Service Fund money. The new farm bill upped telemedicine funding from \$65 million a year to \$72 million. An existing underserved area, even if on the edge of an area meeting the minimum 10 Mbps/1 Mbps service threshold, could be the site for such facilities and serve as the core of a new broadband center. One such proposal I've heard about would be sponsored by an existing health care entity near a small commercial/industrial zone. The health care provider would provide the bulk of the 25 percent equity.

**BROADBAND COMMUNITIES'** financial models suggest these approaches align with what the future seems to hold for broadband providers outside urban cores or national fiber footprints. In general, having a regional provider deploy open-access 5G microsites that combine most or all available spectrum allows for more efficient use of capital and spectrum. The backhaul serving the tiny cell sites will eventually be 100 percent fiber but could start with point-to-point millimeter-wave links in places where fiber does not yet make economic sense.

The new rural funding should also unlock local capital. The RUS has worked in the past with local and regional banks (smaller banks will combine lending power for big projects), so there is an existing financial infrastructure for placing such loans. Since at least 2010, rural bank balance sheets have suffered from local population loss, which has eroded mortgage assets. The outside boost from broadband funding can help banks meet other local loan needs as well. ❖

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**Join the Hawk's financial modeling workshop** (free to Summit registrants) at the **BROADBAND COMMUNITIES Summit** in Austin on April 8. Models suitable for the strategies discussed here and for multiple-dwelling-unit deployments will be featured. Attendees get all the models, free to use and modify, as well as background material and economic studies on a free thumb drive. We expect representatives from the FCC and the USDA to attend the Summit, assuming the federal shutdown is over.