To Stack, or Not to Stack

Stacking subsidies may be the only way to get fiber to the home built in some of the most rural areas.

By Trevor Jones / *OTELCO*

A growing number of government programs support broadband deployment. Some programs allow service providers to combine, or "stack," subsidies in a project's funding; others have prohibitions against stacking subsidies built into the program rules. Recently this has come up in the debate on the FCC's new Rural Digital Opportunity Fund (RDOF). This is the question: Should stacking be allowed, or should it be discouraged?

Just how does a provider stack subsidies? One example occurs when a CAF II recipient also receives a state subsidy to build a broadband network in the same geographic region. On the one hand, this looks like double-dipping. The provider is paid twice to do the same project. On the other hand, is the first subsidy sufficient to produce the desired results in that area at a satisfactory rate of return? In many cases, it is not.

FIBER-TO-THE-HOME ECONOMICS

Density is everything when it comes to building fiber to the home. The cost to build a mile of fiber varies from state to state, but a reasonable estimate for an incumbent with existing pole attachments and strand is about $32,000 per mile (including the cost of construction), plus an installation cost of approximately $700 per home. Without getting too deep into the economics, the threshold for funding these networks with private funds is probably around 50 homes per mile, a total capital investment of $1,350 per home. If housing density is below 50 homes per mile, a community-minded investor and/or some form of public investment or subsidy will be needed.

When providers talk about rural areas, they are talking about much lower densities than 50 homes per mile. When the actual housing density is 10 homes per mile, the subsidy requirement is 66 percent of project costs. No single subsidy offered today reaches that level. In such cases, combining subsidies may be the only way to get true high-speed connectivity built out to every home.

The economics get quite a bit tougher for a competitive provider, because in most cases, it will need to obtain pole attachment rights and have make-ready costs, which can increase overall projects costs by as much as 40 percent. This means that even higher densities will be needed to make the economics work.

COMBINING SUBSIDIES IN ARGYLE, MAINE

OTELCO recently put the last pieces in place to fund an FTTH project in the unorganized township of Argyle, Maine. Argyle has 134 homes across 12 miles of fiber, a density of just 11 homes per mile. About half the addresses were eligible for support under the Alternative Connect America Model (ACAM), but the need for improved bandwidth was present across the entire town, and the economics were such that OTELCO was considering meeting its ACAM obligations with technologies other than fiber.

County commissioners heard about a project done in nearby Alton with funding from OTELCO, the town, and the state to build FTTH throughout the town. The county approved the use of tax increment financing to fund 25 percent of the cost of building connectivity in Argyle. The Connect Maine Authority contributed another 25 percent. These contributions, coupled with ACAM funding for a portion of the addresses, were enough to make the economics make sense in Argyle. It could never have worked without the joint contributions from Maine, Penobscot County, ACAM and OTELCO.

MAKING THE NUMBERS WORK

In the interest of making the best use of public funds, it certainly makes sense that we would not want to pay twice for the same construction. On the other hand, things may not get built if service providers can't get enough help to make the numbers work. If service providers want to build fiber to the most rural areas of this country, they likely will need either bigger upper limits on broadband subsidies, or the ability to obtain funds from multiple services to make the economic model work. ❖

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