The BEAD Savings Question: Cheap, Connected, Compliant — But Capable?

The Department of Commerce is reportedly approaching a decision on how to use roughly $22 billion in apparent savings generated through the Broadband Equity, Access, and Deployment (BEAD) program's Benefit of the Bargain process. That decision deserves careful consideration, because the most important question may not be how much money was saved, but what those savings represent.

Congress appropriated $42.45 billion for BEAD in 2021. The objective was not simply to connect unserved locations, but to deploy broadband infrastructure capable of serving the Nation's needs over the long term. Since that time, labor costs, construction costs, electronics costs, permitting costs, and make-ready costs have generally increased rather than decreased. Against that backdrop, it is reasonable to ask how a program originally funded at $42.45 billion can now reportedly achieve its objectives for approximately half that amount.

That question is not intended as criticism. It is intended as due diligence.

When cost reductions of this magnitude occur, there are generally only three possibilities. The original estimates were dramatically overstated. Construction costs have fallen significantly. Or the infrastructure being deployed today is not the same infrastructure that would have been deployed under the original assumptions.

The first explanation seems unlikely. The second appears inconsistent with prevailing market conditions. That leaves the third possibility deserving of careful examination.

The issue is not whether the networks will be connected. They almost certainly will be.

The issue is not whether the networks will meet current broadband speed and latency requirements. Many undoubtedly will.

The issue is whether they will be capable.

In this context, capability means more than providing residential Internet access at a specified speed. Residential broadband service increasingly exhibits the characteristics of a commodity offering. As competition expands and pricing pressure increases, long-term economic sustainability will increasingly depend on a network's ability to support multiple workload classes and multiple revenue streams over its operating life.

A capable network is one whose physical infrastructure can support not only residential broadband, but also the foreseeable workloads that modern communities increasingly require. Those workloads include emergency communications, utility telemetry, healthcare applications, enterprise connectivity, distributed computing, artificial intelligence-enabled services, and other applications whose requirements extend beyond simple connectivity.

The challenge is that many of the capabilities required to support those workloads are physical rather than operational. They are determined by decisions involving route diversity, protection architecture, survivability, restoration capability, segmentation, capacity structure, and future expansion flexibility. If those capabilities are not incorporated before construction, they often cannot be added later without substantial reconstruction expense.

This distinction is particularly important because broadband policy discussions frequently focus on outputs. Speed, latency, coverage, and cost are all important measures. They are also relatively easy to quantify. Physical capability is more difficult to evaluate because it concerns what the network can support in the future, not merely what it delivers on the day it is activated.

Ironically, Congress appears to have recognized this distinction when it established the statutory concept of a Priority Broadband Project. The first part of that standard concerns broadband deployment itself. The second part concerns the services and applications the infrastructure is expected to support. That second requirement is fundamentally a capability question.

In many respects, it is the more important question.

A network can be connected, compliant, and fully functional while still lacking the physical capabilities needed to support foreseeable future demands. It can be correctly engineered, correctly constructed, and fully compliant with current requirements while remaining constrained by physical decisions that become extraordinarily expensive to correct after construction.

This is where the current discussion surrounding BEAD savings becomes particularly important.

The debate should not focus exclusively on how the savings can be spent. It should also consider whether a portion of those savings should be used to strengthen the physical capabilities of the networks already approved for deployment.

The better use of the apparent BEAD savings may be to harden and capability-qualify already approved networks before construction locks in physical designs that may be cheap, connected, and compliant—but not capable.

Such an approach would not seek to reopen the entire BEAD process. It would simply recognize that infrastructure capability and infrastructure connectivity are not the same thing.

The broadband networks being funded today will remain in service for decades. The physical decisions made now will determine not only what those networks can do on their first day of operation, but what they will be capable of supporting throughout their useful lives.

The most important question facing policymakers may therefore be remarkably simple:

Should the remaining BEAD funds be viewed as surplus money to be redirected elsewhere, or as an opportunity to improve the long-term capability, resilience, and economic sustainability of the broadband infrastructure Congress originally set out to build?