

Summary: Broadband Deployment in Virginia

BACKGROUND

Achieving universal broadband connectivity relies on government funding

Internet service providers (ISP) build broadband networks to bring high speed internet to Virginia households, businesses, and community institutions (e.g., schools, libraries, hospitals, etc.). Some areas—particularly in rural Virginia—still lack access to broadband because they have a limited customer base and because it is more challenging and costly to build broadband infrastructure in relatively remote locations. Government programs award state or federal grant funding to help ISPs cover broadband deployment costs in areas that may not be economically feasible for ISPs to serve. Approximately \$3.2 billion in state and federal funding has been awarded to broadband deployment projects in Virginia since FY17.

The Office of Broadband in the Department of Housing and Community Development (DHCD) is responsible for overseeing Virginia’s broadband efforts and administering state and federal broadband deployment programs. DHCD staff work closely with state, local, federal, and private sector stakeholders to inform them of broadband programs operating in Virginia, monitor the progress of state-administered projects, and help address challenges and underperformance where possible. Stakeholders report that DHCD staff have strong broadband-related expertise and have done a good job managing broadband programs.

WHAT WE FOUND

Most Virginians have access to broadband, but ~392K locations are unserved, and some will not have access to broadband before 2030

The relevant measure of broadband availability is a “location,” which could be a home, business, community institution, or other place where broadband could be installed, and 87 percent of Virginia locations had access to broadband as of December 2023. The unserved 13 percent (392,020 locations) were largely concentrated in Virginia’s Southside and Shenandoah Valley regions, with Pittsylvania County, Bedford County, and Halifax County each having over 10,000 unserved locations (Figure 1). The majority of Virginia’s unserved locations have already received state or federal funding for deployment projects that are currently underway (Figure 2).

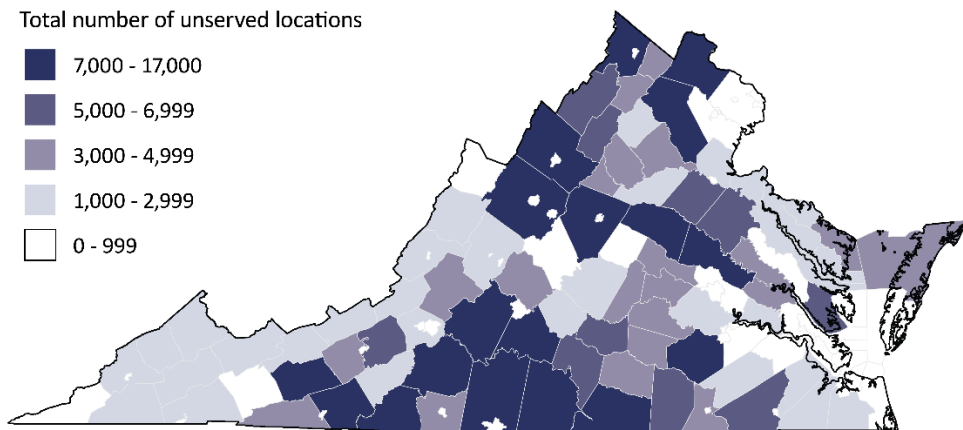
WHY WE DID THIS STUDY

In 2023, the Joint Legislative Audit and Review Commission (JLARC) directed staff to review Virginia’s broadband deployment efforts.

BROADBAND DEFINITION

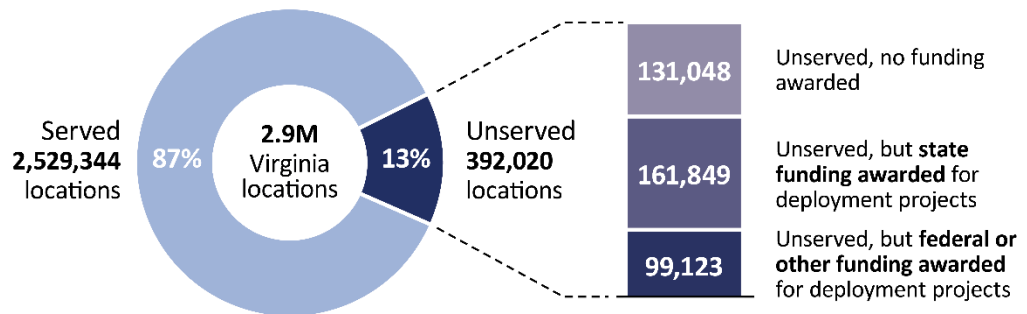
Broadband is high-speed internet that has a minimum download speed of 100 megabits per second (Mbps) and minimum upload speed of 20 Mbps. Broadband can be provided through various wired technologies (e.g., fiber, DSL, or cable) or wireless technologies (e.g., fixed wireless or satellite), though some state and federal programs do not award grant funding for broadband provided through wireless technologies.

Figure 1
Many unserved locations in Virginia are concentrated in Southside and Shenandoah Valley regions



SOURCE: Data on unserved locations according to the FCC National Broadband map (as of December 31, 2023). An unserved location may have internet access, but the connection speed is lower than required to be considered “broadband.”

Figure 2
~392K locations in Virginia currently lack access to broadband



SOURCE: Data on unserved locations according to the FCC National Broadband map (as of December 31, 2023) and DHCD validation of location information.

Although Virginia has set a goal of achieving near universal broadband coverage by 2028, it will take at least until 2030 to achieve that goal. A large federal broadband deployment program—the Broadband Equity, Access, and Deployment (BEAD) program—is expected to connect most of the remaining unserved locations, but the projects funded by BEAD are not expected to begin until mid-2026 and are unlikely to be completed until 2030 or later. Furthermore, even after planned and current deployment projects are completed, some locations will remain unserved because (i) some ISPs will likely be unable to complete their projects on time or at all and (ii) deployment projects are based on already outdated “coverage maps” that are known to have omitted some unserved locations.

Many deployment projects have been delayed because of challenges attaching broadband to utility poles and obtaining necessary permits

A surge in broadband projects in recent years has strained deployment and delayed many projects. A large infusion of government funding caused a surge in the number of broadband deployment projects in Virginia, which overwhelmed available personnel and systems and strained supplies of needed equipment and materials. At least 29 of the 57 ongoing projects funded through the state’s Virginia Telecommunications Initiative (VATI) program have experienced delays because of deployment challenges, many by 12 months or more.

The “make ready” process is one of the most substantial challenges to completing broadband deployment projects—primarily projects that involve installing broadband fiber overhead on utility poles. “Make ready” challenges are delaying at least 16 of the state’s ongoing VATI projects. ISPs and utility pole owners (e.g., electric companies) have disputed who is responsible for these delays, but they share responsibility in many cases. The General Assembly enacted legislation in 2024 to minimize future delays and disputes (sidebar). It is too soon to determine the impact of the legislation’s changes, but there appear to be no additional state measures that would meaningfully facilitate “make ready” work.

Several projects have cost much more than the ISPs’ original estimates, and challenges coming up with additional resources to pay for unplanned costs have contributed to delays. Some ISPs that were awarded VATI projects found that actual “make ready” costs substantially exceeded their original estimates, which made it difficult to adhere to project timelines and budgets. The 2024 General Assembly created the Virginia Make Ready Initiative (VMRI) with \$30 million in general funds to supplement “make ready” costs for at-risk 2022 VATI projects. DHCD began making monthly VMRI awards in September 2024 and has awarded \$19 million to four ISPs as of November 2024. Projects that have received these awards have started to use the funds to pay for additional pole attachments and underground activities.

Obtaining VDOT land use permits has also delayed some broadband deployment projects. Between January and July 2024, local VDOT “residency” offices approved broadband-related permits in an average of 10 days, but several offices took over 100 days to approve some permits. Some ISPs report confusion over permitting requirements, which vary across VDOT offices, and many ISPs’ permit applications lack sufficient information to obtain VDOT approval. Furthermore, VDOT staff report being unaware that some permit applications are tied to deployment projects that have federal deadlines, so they are unable to prioritize them over less time-sensitive permit applications.

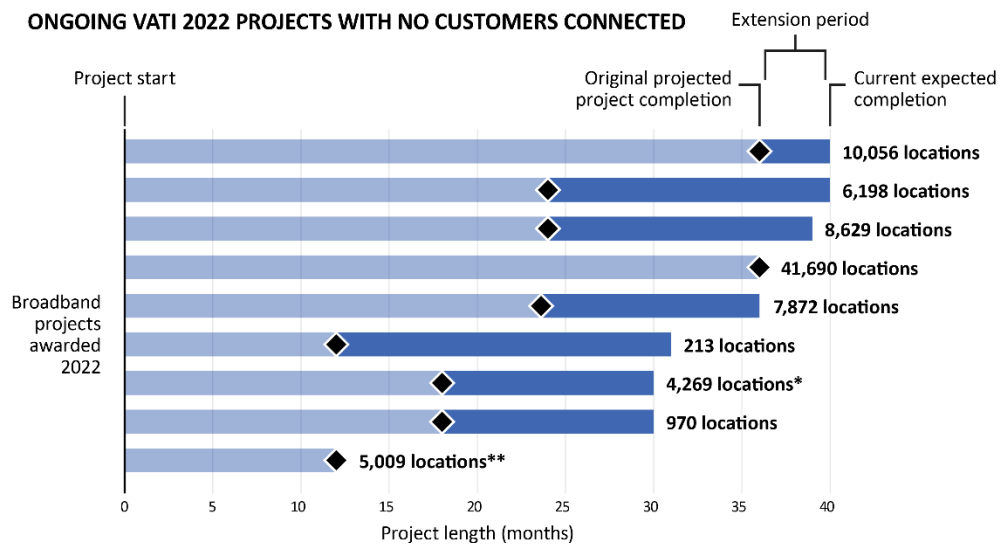
The 2024 General Assembly enacted changes to support “make ready” process, including: (1) establishing a “make ready” timeline for electric cooperatives; (2) creating a dispute resolution process for ISPs and electric cooperatives that is administered by the State Corporation Commission; and (3) allocating funding to help pay “make ready” costs for 2022 VATI projects at risk of incompletion.

State VATI program has increased broadband availability, but some VATI projects have made little progress

Since 2017, the VATI program has awarded state and federal funds to 110 deployment projects covering approximately 370,000 locations across the state. As of November 2024, 46 VATI projects had been completed, 57 projects were ongoing, and seven projects were recently awarded but have not yet begun because contracts between DHCD and the localities were still being negotiated.

The majority of ongoing VATI projects (29 of 57) have not kept up with their original schedules and have received at least one contract extension from DHCD. Some of the delayed projects have made very little progress to date. For example, nine projects that began in 2022 had not connected any locations as of November 2024 (Figure 3). VATI projects from 2022 were funded with federal pandemic relief funding that expires if not used by the end of 2026.

Figure 3
Nine 2022 VATI projects have not connected any locations (as of Nov 2024)



SOURCE: DHCD data on VATI projects (as of November 2024).

*Funded with state general funds, all other projects in figure funded with federal pandemic relief funds. Project has connected one customer as of November 2024.

**Original project awarded in 2022 but transferred to new grantee in 2024.

Inadequate contract provisions and inconsistent state oversight of project performance have enabled some VATI project delays. Localities have not established clear performance targets for ISPs or penalties for underperformance, in some cases enabling ISPs to make unsatisfactory progress without meaningful consequences. Additionally, DHCD has not consistently required either localities or ISPs to complete corrective action plans when projects miss key milestones.

DHCD grouped VATI 2022 projects into 3 categories: (1) no risk, (2) low risk, and (3) high risk. Projects were considered "low risk" if they had received a contract extension or were significantly behind milestones. Projects were considered "high risk" if they had a contractual end date in 2026.

The General Assembly enacted budget language in 2024 to enable localities involved in 2022 VATI projects to take actions to improve the likelihood of completing the projects by the December 31, 2026, federal funding deadline. The budget language directed DHCD to assess the risk level of each 2022 VATI project and to notify local entities of their ability to (1) entirely surrender their projects, (2) rescope their projects to include fewer locations, (3) transfer locations from their project to another VATI project, or (4) replace their private ISP partner. In July 2024, DHCD identified which 2022 VATI projects were at “no risk” (11 projects), “low risk” (22) or “high risk” (one project) of incompleteness by December 31, 2026 (sidebar). DHCD also notified each local entity of their options to rescope their projects or replace their ISP partners. In response, only one locality chose to transfer some of their project locations to a different ISP partner. All other projects chose to continue their projects as originally designed.

As projects continue, localities could replace underperforming ISP partners; however, some localities expressed concerns that their contracts lack provisions to protect them from being sued by the ISP for contract termination. Localities have a narrow window of time to terminate their existing contracts and hire a new ISP, if they choose, given the amount of work that remains to be completed before the 2026 federal deadline. The state has some limited actions it can still take to help localities navigate changes to their existing contracts, if they choose.

Forthcoming federal BEAD program will help Virginia achieve nearly universal broadband availability, but delays and cost overruns could be avoided by applying lessons learned from VATI projects

In 2021 the federal government announced a new broadband deployment funding program for states, and in 2026 Virginia will receive \$1.4 billion to deploy broadband to its remaining unserved locations. BEAD projects will occur throughout the state, with Carroll, Rockingham, Gloucester, Spotsylvania, and Augusta counties having the most remaining unserved locations. DHCD is awaiting federal approval to begin making BEAD project awards, but DHCD staff estimate that projects will begin in 2026 and conclude by 2030.

The state should take steps to prevent past deployment challenges when administering the BEAD program. Similar to other broadband deployment projects, BEAD-funded projects will be vulnerable to unreliable, inexperienced, or under-resourced ISPs, unrealistic cost estimates, and challenges arising from other stakeholders involved in the process. Although many parameters of BEAD projects have been determined by the federal government, the state can help ensure the success of these projects by applying lessons learned over the past several years. For example, DHCD can validate projects’ estimates of “make ready” costs to ensure that sufficient funds are awarded to each project and can ensure that Virginia’s contracts with ISPs include clear performance targets, penalties for underperformance, and mechanisms to hire replacement ISPs for an underperforming project, if necessary.

The federal government requires states to prioritize BEAD funding for projects that deploy broadband to unserved locations, but leftover funds can be used for programs that improve broadband affordability and facilitate broadband adoption. DHCD estimates that a majority of Virginia’s BEAD allocation will be needed for deployment, but a substantial amount (~\$480 million) could be leftover for non-deployment initiatives. The state’s priorities for this significant sum, and parameters for spending it, are unclear, but the General Assembly reiterated federal guidance on possible uses for non-deployment funding in the 2024–26 budget (e.g., direct subsidies for broadband subscriptions, remote learning or telehealth services/facilities, etc.). Virginia’s governor and the federal government must approve Virginia’s non-deployment project awards.

Lower-income households may find broadband rates unaffordable when it becomes available

Even when broadband has been deployed to the remaining unserved locations, many Virginia households will have difficulty affording it. Monthly broadband subscription rates in Virginia vary widely, ranging between approximately \$45 per month to \$90 per month, depending on the ISP. Some ISPs offer low-cost plans ranging from approximately \$10 to \$30 per month for eligible households, and some households qualify for discounted monthly broadband subscriptions through the federal government. Experts agree that, to be affordable, utilities should cost no more than between 2 and 4 percent of household income. The cost of a broadband subscription would be considered affordable for most Virginia households, who would pay 3 percent or less of their monthly income toward the median broadband subscription (\$50 per month). However, a broadband subscription would account for more than 3 percent of monthly income for 10 percent of Virginia households, which are largely concentrated in Southwest, Southside, and Eastern Virginia.

WHAT WE RECOMMEND

Legislative action

- Expand membership of the Broadband Advisory Council to include members from VDOT, Virginia811, and investor-owned utilities, so all key broadband stakeholders are represented.
- Direct DHCD to 1) determine by July 1, 2025, whether any projects whose funding expires in December 2026 are unlikely to be completed by then and 2) require the localities with those projects to take actions to improve the likelihood that they will be completed on time, including transferring all or part of the project to a different ISP.

Executive action

- VDOT develop and publish online the specific information each VDOT residency requires from applicants for broadband-related VDOT land use permits.
- VDOT identify the land use permit applications needed for time-sensitive broadband deployment projects and prioritize the permits needed specifically for projects with federal pandemic relief funding that expires in 2026, when practicable.
- DHCD, for 2022 VATI projects: (1) determine if localities' existing contracts with ISPs could be terminated for underperformance, (2) require localities to amend their contracts to clarify performance goals and termination rights, if needed, before granting future project extensions, and (3) issue a Request for Qualifications to identify ISPs that may be able to provide broadband to unserved locations if localities change ISPs.
- DHCD, for future VATI and BEAD projects: (1) consistently require corrective action plans when projects miss performance milestones and monitor whether they are implemented, (2) require contracts with ISPs to have clear performance targets, penalties for not meeting targets, and a process for termination, (3) require ISPs to estimate "make ready" costs based on previous projects in similar areas and information from utility pole owners, and (4) compare "make ready" cost estimates submitted by grant applicants to actual costs from previous projects to verify reasonableness of estimates.
- DHCD not award funding to projects that are using ISPs with a recent history of underperformance on broadband deployment projects.

