



TACIR

The Tennessee Advisory Commission
on Intergovernmental Relations



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MEMORANDUM

TO: Commission Members

FROM: Cliff Lippard *Cliff*
Executive Director

DATE: 17 December 2020

SUBJECT: Public Chapter 228, Acts of 2017 (Status of Broadband Internet Deployment, Availability, and Adoption)—Draft Report for Review and Comment

The attached Commission report is submitted for your review and comment. It was prepared in response to Public Chapter 228, Acts of 2017, which directed the Commission to update its 2017 report on broadband deployment, availability, and adoption in Tennessee. Consistent with recommendations in the Commission's 2017 report, the Act also

- established a grant program to help offset the cost of expanding coverage in unserved areas, while authorizing the program to grant funds to libraries to help facilitate broadband adoption;
- established a tax credit for broadband investment in tier 3 and tier 4 enhancement counties;
- removed barriers to entry for would-be providers by authorizing electric cooperatives to provide broadband within their electric service areas; and
- established a pathway for communities to signal providers that they have streamlined local permitting processes and removed regulatory barriers to broadband investment.

The overall body of evidence continues to support the conclusion that broadband is a critical enabler; without it, individuals and communities risk being left behind. Broadband is defined as high-speed internet service with a capacity of at least 25 megabits per second download and three megabits per second upload (25/3), according

to the Federal Communications Commission (FCC). Over time, the 25/3 standard may no longer meet users' needs. Broadband providers report that many customers have opted for faster connections with greater capacities since the onset of the COVID-19 pandemic, as more people began working and learning from home.

The percentage of Tennesseans with broadband access and the percentage that have adopted broadband continue to increase.

According to the latest data available from the FCC, approximately 93.7% of Tennesseans live in census blocks where at least one provider reported offering service with a capacity of at least 25/3 as of December 2019, compared with 88.3% in December 2015, the dataset used for the Commission's 2017 report. However, because the data do not show whether everyone in these census blocks has access to service at the reported speeds, this represents the *maximum* extent of coverage. Regarding adoption, 58% of households in census blocks where at least one provider reported offering broadband subscribed to the service, according to the FCC's 2020 broadband progress report, which relies on December 2018 data. Four years earlier, the rate was only 40%.

The increases in broadband access and adoption are encouraging. Although gaps remain, the draft report finds that Tennessee is well placed to address them based on the public and private initiatives already in place. Further, the lessons learned from policy changes implemented in 2017 can help inform any future changes or new policies to help maximize their effectiveness at improving broadband access and adoption.

The draft report highlights some of the efforts of local libraries and schools to facilitate broadband adoption.

Libraries have had success offering digital literacy classes, with well over 80% of participants reporting increased confidence in using what they learned. Many libraries and schools are addressing affordability and coverage gaps by lending wireless hotspot devices that provide access to mobile wireless service to patrons and students. Some schools are ensuring that students have access to laptops or other devices that can be taken home and used for schoolwork.

The draft report also highlights recent funding for these efforts. Consistent with the Commission's 2017 recommendations, the state's broadband grant program—established under Public Chapter 228, Acts of 2017—has awarded a combined total of \$443,500 to libraries, which has been used to provide 1,565 digital literacy classes to 10,534 participants and funded 210 hotspots. The Tennessee State Library and Archives (TSLA) also received approximately \$600,000 in federal funding from the state's share of the Coronavirus Aid, Relief, and Economic Security (CARES) Act, which TSLA used to fund grants for hotspots, computers, and videoconferencing equipment. For schools,

the state made approximately \$61 million of its share CARES Act funding available for laptops and hotspots, as well as one-to-one technology initiatives. Several local governments also provided CARES Act funding to local school systems for use on devices for students.

Because of the role libraries and schools play in their communities and the importance of tailoring broadband adoption efforts to meet local needs, the draft report recommends that **the state and local governments should continue to identify opportunities to increase funding for libraries and schools to assist their efforts to facilitate broadband adoption and short-term access in their communities—including support for digital literacy classes, devices, hotspots, and other efforts to make broadband available to those who either don't have or cannot afford service. For libraries, in particular, the state should continue to provide funding for broadband adoption efforts through the state's broadband grant program.**

The draft report finds that the challenging economics of providing broadband in some unserved areas remain a barrier to deployment.

Consistent with recommendations in the 2017 report that were intended to promote coverage expansion by reducing deployment costs for providers, Public Chapter 228, Acts of 2017, established the broadband ready community designation for local governments, a franchise and excise tax credit—since repealed—for providers, and a state grant program for broadband projects in unserved areas. Of these, the draft report finds that the state grant program has been effective at expanding broadband access.

The Tennessee Broadband Accessibility Grant program—administered by the Tennessee Department of Economic and Community Development (ECD)—awards funding to offset the cost of expanding broadband in unserved areas. The program has awarded a total of more than \$44.3 million, helping fund 39 projects in communities that will result in 26,300 previously unserved homes and businesses receiving broadband. Because ECD limits grants to no more than 50% of overall costs for each project, more than \$44.3 million in matching funds will also be invested in these projects, resulting in a total investment in broadband expansion of approximately \$88.7 million—public and private. There is approximately \$15 million available for projects in the fourth round, which will award grants in 2021.

The draft report finds that projects funded through the state grant program and projects awarded federal funding through a variety of programs—including 62 projects awarded a total of \$61 million in 2020 from the state's share of the CARES Act—will continue to reduce coverage gaps in Tennessee. However, there are still at least 131,000 homes in census blocks where no provider reported 25/3 service as of December 2019

that won't receive broadband from existing state- or federally funded projects, according to TACIR staff estimates. Based on the median cost per location for projects in the first three rounds of the state grant program—approximately \$4,028 per location, including both the state's share and the applicant match—the total cost to cover these homes could be approximately \$529 million.

Because of the challenging economics of providing broadband in some unserved areas, filling the remaining coverage gaps will likely require a combination of public and private resources. Requirements to build out broadband to unserved homes and businesses included in each grant—which providers must meet to receive their full grant awards—help ensure that state funding spent through the program results in coverage expansions. While only one round of projects funded by the state grant program has been completed, projects in that round not only met but collectively exceeded their buildout requirements. As a result, the draft report recommends that **the state should keep supporting efforts to expand broadband access in Tennessee by continuing to fund the broadband grant program and could consider increasing its annual appropriations to accelerate broadband expansion to more unserved areas.**

Other government incentives for providers that could be enacted to facilitate the expansion of coverage were discussed by various stakeholders in interviews with TACIR staff. In discussing these incentives, the draft report emphasizes that the buildout requirements included in the state grant program help protect the state if projects fail and tie receipt of state funding directly to the expansion of broadband access. Moreover, ECD caps the state's share of project costs under the grant program at 50%. While the exact structure of the grant program's requirements might not be transferrable to every state or local incentive, the goal of reducing risk to taxpayers is. The draft report recommends that **the state and local governments should consider tying any new incentives for broadband providers directly to coverage expansions, while limiting the overall share of project costs that those incentives pay for.**

The draft report discusses remaining restrictions on electric cooperatives and municipal electric systems providing broadband.

Public Chapter 228, Acts of 2017, authorized electric cooperatives to become retail broadband providers, consistent with recommendations in the Commission's 2017 report. Of the 22 electric cooperatives that serve parts of Tennessee, 13 are now either providing broadband or will be soon. Although TACIR staff were unable to obtain data showing the number of previously unserved homes and businesses that have received service as a result of these electric cooperatives beginning to provide broadband, nine cooperatives have received funding for projects in unserved areas through the state and federal programs noted above.

While the Act eased restrictions on electric cooperatives providing broadband, it did not eliminate them entirely. Electric cooperatives—like municipal electric systems—remain subject to territorial restrictions that, with limited exceptions, prevent them from providing broadband outside of their electric service areas. Multiple bills in recent legislative sessions of the General Assembly would have decreased the territorial restrictions on electric cooperatives, municipal electric systems, or both.

But even without the current territorial restrictions, cost will still be a barrier in some areas. The potentially high cost of building broadband networks introduces risks to which electric cooperatives and municipal electric systems are not immune. The draft report finds that who shoulders these risks is important.

Like any other provider, electric cooperatives and municipal electric systems often take on debt to finance the construction of their broadband networks. For debts backed by electric system assets or revenues, if broadband revenue isn't enough to make debt payments, electric ratepayers shoulder the risk of repaying them. Those living outside a cooperative's or utility's electric service area don't share in these risks. While the risks can be justified inside a cooperative's or utility's electric service area at least in part based on the benefits to electric ratepayers that can result from communications networks that support management of the electric grid, this dual justification doesn't exist for a cooperative or utility outside its electric service area.

TVA already prohibits the electric cooperatives and municipal utilities it serves from using their electric operations to subsidize their broadband operations. Any use of electric system assets or revenues to support the operation of a cooperative's or utility's broadband operations—for example, interdivisional loans, sharing of staff, or the leasing of fiber—must be approved by TVA. TVA has not determined whether it would approve the use of electric system assets or revenues to finance the construction of broadband networks outside a cooperative's or utility's electric service area.

State law also prohibits electric cooperatives and municipal utilities from using their electric operations to subsidize their broadband operations. However, these provisions don't prevent cooperatives or utilities from pledging electric system assets and revenues to finance the construction of their broadband networks within their electric service areas. Because of the risks involved in broadband projects, the draft report recommends that **if the state were to eliminate or ease existing territorial restrictions on electric cooperatives and municipal electric systems, it should consider ways it can protect electric ratepayers, for example, by prohibiting these cooperatives and utilities from pledging, loaning, or otherwise using electric system assets or revenues to finance broadband projects outside their electric service areas.**