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Guide to Public Funding for Broadband Projects in Ohio: Squire Patton Boggs

Over the last three decades, accessible and affordable high-speed internet (often called “broadband”) has increased in importance for the health, safety and economic wellbeing of communities. Municipalities that are interested in expanding broadband to their communities have several options in both how to build out broadband networks and how to finance such expansion. This paper explains the basics of broadband connectivity and outlines two methods of broadband expansion: (1) municipal owned network and (2) public-private partnerships.¹

Basics of Broadband

Broadband is a general term that refers to high-speed internet access. The Federal Communications Commission (FCC) sets the speeds that qualify as adequate broadband. Since 2015, that speed has been 25 megabits per second (Mbps) download and 3 Mbps upload often referenced as “25/3 Mbps.”² As of 2022, 488,327 households in Ohio lack access to 10/1 Mbps broadband, which is currently considered the “bare minimum of connectivity.”³ In addition, 37% of Ohioans lack access to 25/3 Mbps broadband.⁴

Why Fiber is Favored

Several avenues exist to deliver high-speed broadband, including fiber, DSL/cable and wireless networks. Current federal and state programs are incentivizing fiber networks over other delivery methods.⁵ Fiber, short for fiber optic cables, consists of bundles of glass or plastic strands that carry data at the speed of light. Fiber presents several benefits over other types of internet service. First, fiber more easily allows for higher speeds than other methods because fiber transmits data at the speed of light, the data travels faster than it would on copper cables.⁶ Fiber cables can carry much more data than a copper cable of the same size.⁷ Additionally, fiber networks can transmit data for much longer distances before needing to be amplified than traditional copper wires.⁸ Importantly, fiber cables are also “futureproof” due to fiber’s ability to handle huge amounts of information; fiber does not corrode or deteriorate like copper wires.⁹ All of these qualities make fiber the optimal infrastructure for broadband expansion, despite fiber being more expensive than traditional cables. Although fiber easily offers speeds of 1 gigabits per second (Gbps),¹⁰ many consumers with fiber internet service will not be able to access that speed due to bottlenecks within other non-fiber parts of the broadband system.

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