

Broadband USA Applications Database

Applicant Name: City of Danville, VA

Project Title: Fiber Deployment to Low-Income Urban Neighborhoods

Project Type: Last Mile

Executive Summary

Executive Summary Danville, Virginia Fiber Deployment to Low-Income Urban Neighborhoods

Approximately 1,480 homes in the poorest part of Danville will be connected to the City's nDanville fiber optic network as a result of this project. nDanville connectivity would provide access to more affordable broadband services to those in most need. The project meets the BTOP statutory purpose of providing improved access to those in underserved areas. Moreover, the Danville project directly responds to the purpose of American Recovery and Reinvestment Act to preserve and create jobs, promote economic recovery, and assist those most impacted by the recession.

Danville's Challenge: Danville is a municipality of 45,300 in a small metropolitan area of 100,000 located in south-central Virginia on the North Carolina border. The City is an old manufacturing center in decline with a large concentration of moderate and low-income residents. Tobacco warehouses and textile mills that once made Danville the most prosperous manufacturing center of Virginia have closed down, victims of globalization and federal policy changes. Having functioned 200 years as a warehouse and mill town, Danville now faces a daunting set of challenges, including consistently high unemployment; low workforce educational attainment, literacy, and skill levels; an aging and declining population; high poverty rates; low home ownership levels; and poor public health. The metropolitan area's unemployment rate is currently among the highest in the nation. Twenty percent of Danville's residents live in poverty, per capita income well below the state average, twice the State's proportion of the population are 65 years or older, and 15% fewer residents own their homes. Nearly one in three adults holds no high school degree or GED and less than half the State average have bachelor's degrees. Public health statistics, including high obesity, smoking, blood pressure, and death rates, reflect poor lifestyle choices accumulated by generations of mill workers.

nDanville: Danville's fiber optic network, nDanville, was created in 2004 initially to serve the needs of the City and Public School District. Recognizing the potential benefits to further educational attainment and economic development, the City overbuilt the network to accommodate service to businesses and residents. nDanville is an open Layer 3 internet protocol routed network built to meet IEEE standards and operating procedures. The Danville Utilities Department operates nDanville on an open-access basis, with private sector providers offering various services to customers. Other than meeting its own and Public School District needs, Danville Utilities provides no direct services to customers. A portion of revenues earned by each commercial service provider is shared with the City to finance network operations, maintenance, and expansion. nDanville is a freestanding enterprise that must operate without subsidy from the City or its other utilities. A single service provider now operates on nDanville and offers a variety of internet packages. Danville Utilities is aggressively recruiting others and seeking to broaden service offerings to include telephone, television,

and other services. Access is available without discrimination to any able service provider wishing to sell products over nDanville, including the incumbent telephone and cable TV companies. Danville has been serving public agencies and businesses for two and a half years and is now poised to deploy nDanville to neighbors on a phased basis. Deployment will proceed as quickly as customers prove willing and able to pay for services. Without grant funding, extension of nDanville to the low-income neighborhoods in the project area would be delayed until sufficient capital reserves could be generated by the telecommunication enterprise. Project Area: Danville's project will connect approximately 1,480 occupied homes in the poorest part of the City to the nDanville fiber optic network. The project area covers Block Groups 1, 2, 3, and 4 of Danville Census Tract 6. The area is predominately residential, but also includes approximately 60 businesses and 10 critical community organizations, including churches, a hospital, and health care agencies. Residents of only one of the block groups in the project area earn incomes at the City's median household level. Median household incomes in the other three blocks range 10 to 20 percent below the City's median. Collectively, nearly 90% of the project area residents are nonwhites. The City has not conducted resident surveys of the project area to determine current broadband access rates, but is confident in its assumption that the neighborhoods are underserved. The Pew Internet & American Life Project reports that, while usage rates are on the rise, only 35% those living in households with annual incomes of less than \$20,000 use the Internet. Usage percentages fall with declining incomes.* Pew further reports that a majority of home broadband users see a home high-speed connection as "very important" to at least one dimension of their lives and community, such as communicating with health care providers and government officials, or gathering and sharing information about the community. nDanville is emphasizing use of its capabilities to further distance learning and workforce readiness training, tele-health, and household financial services, as well as lower-cost telephony and television. Denied access to affordable high-speed broadband, residents of the project area will be deprived of these benefits. Project Readiness: The Danville project is "shovel ready." Fiber optic cable will be deployed in municipal rights-of-way aurally on power poles owned by Danville Utilities and Verizon. Construction plans are prepared and local funding is secure. Approximately half of the grant funding will go toward network and customer premises equipment and half toward labor costs for installation. The project will provide approximately 25 jobs during the construction phase and 10 jobs thereafter. Once nDanville is deployed in the project area, take rates for broadband services are expected to begin at 10% of houses past and increase by annually to reach 50% by the fifth year.