

Broadband USA Applications Database

Applicant Name: Hudson Valley Wireless

Project Title: Rensselaer County, NY (Rural Broadband / Public Safety)

Project Type: Last Mile Non-Remote

Executive Summary

Hudson Valley Wireless is applying for BIP and BTOP funding to deliver Broadband Internet Service to rural areas of Rensselaer County located in Upstate, NY. We are a local family owned and operated business based in Albany, NY. Our Infrastructure and Cabling division (Hudson Valley Communications) was founded over 35-years ago. HVC specialize in consulting, telephone systems, infrastructure cabling, two-way radios and computer networking. HVC currently holds a New York State - Comprehensive Telecommunications Equipment and Services Contract for Key, PBX, Computer Networking, Infrastructure and Cabling (10-Year). In addition to the state and local government, some of our notable clients include Fortune 1000 and 500 companies: Trans World Entertainment, Angio Dynamics and Plug Power. We also provide service for Saratoga Gaming and Raceway, Orange County Choppers and hundreds more. In 2002 we created Hudson Valley Wireless to focus on providing High Speed Internet Access to Rural areas. Hudson Valley Wireless is currently the largest Fixed Wireless Provider in Upstate, NY. We provide last mile and middle mile broadband access to hundreds of homes and businesses in rural areas. We also provide Dedicated Internet Access (DIA), Point to Point (PTP) for Enterprise Customers and Backhaul Services for Cellular Carriers. Our current network covers a large part of Washington County, Saratoga County, Albany County, Warren County Schenectady County and parts of Rensselaer County. Working with Rensselaer County to provide affordable broadband access to thousands of unserved and underserved residents will be a logical expansion of our network. Rensselaer County is located in the heart of New York's Capital Region, a region JP Morgan cites as one of the fastest expanding metros. It is also located in the "Tech Valley" and home to many entrepreneurs, corporate executives, high-tech start-ups and global companies and world-class educational institutions. Between the architectural skylines and wide-open spaces there is a need to expand the broadband services to the rural population. Only miles away from Rensselaer County, located in the "Tech Valley", Upstate, New York has been successful in attracting hundreds of companies to participate in a Technology Hub focusing on Nanoscale Science and the Semiconductors Industry. (Currently only 20% of the 300mm fabs in the world are manufactured in US with Asia having almost 70% of facilities) Combined these companies will have invested \$5-Billion and created 2,600 Research and Development Jobs by the end of 2009. Also within driving distance, AMD has started the construction of a \$4.5 Billion chip plant in Saratoga, NY. This project may be the largest scale construction project in the US for the year. Hudson Valley Wireless currently provides Internet access to contractors working on that site. The additional capacity would allow AMD to utilize the microwave links for Disaster Recovery. Many smaller and medium sized business will be required to move into the area and support AMD and the Semiconductor Industry, but they all need affordable broadband access. We have been working with

local government and economic development to engineer broadband services to attract these businesses. Rensselaer County will also be home to a large portion of the workforce supporting these two institutions. Unfortunately, a large portion of Rensselaer County is rural and does not have sufficient access to High Speed Internet. We have developed a public / private partnership and have permission to use county owned Public Safety Towers and infrastructure to deliver the broadband service to rural areas. Hudson Valley Wireless will reuse the public safety towers and upgrade the capacity of the existing microwave links. The additional capacity will be used to deliver Broadband Services to underserved and unserved areas. Public Safety will use the upgraded system to support their mobile command posts. When a command post is deployed within range of our towers they will have access to 10-20 Mbps Internet Access or PTP Data Communications for emergency response. The City of Troy is home to a large portion of Rensselaer County Government and almost 50,000 citizens. It is also located in a flood plain along with the 911 Center Public Safety Answering Point (PSAP). While working with the County Executive to deliver broadband access to rural areas we have developed a plan to address this crucial problem. If the City was to flood, the Telephone Company Central Office is also located within the flood zone, rendering all critical communications useless. The County is currently developing a Disaster Recovery Plan to relocate the 911 center to higher ground, in the event of an emergency. If a flood was to jeopardize the local Public Safety building we plan to deliver E911 Trunks over the microwave links to relocate the PSAP on a hill. The new trunks could originate from a diverse carrier or Central Office far away from the flood zone. Our microwave network would "beam" the 911 Trunks over the flood plain to the relocated E911 PSAP. Wireless is the lowest cost medium to deliver high speed Internet access to rural areas when compared to DSL and cable based technology. The wireless also allows us to reach the greatest number of homes and businesses in rural areas and address the needs of public safety while utilizing existing infrastructure. The benefits of the project are almost limitless. Our network not only provides for Public Safety, but passes countless hospitals, healthcare facilities, vulnerable populations, schools, libraries and community anchor institutions. Our plan utilizes a combination of HVW owned / leased and Rensselaer County owned facilities to create a middle mile network around the County with diverse paths. The Licensed Microwave backhauls allow us to get the high speed Internet access to the community while strengthening the critical communications of Public Safety. We will use Licensed WIMAX technology to deliver the service to the end user. WIMAX allows us to deliver the service to the end user and potentially repeat the signal to provide service additional customers. The upgraded "Middle Mile" and WIMAX will be used as building blocks for future expansion to other unserved and underserved areas. "Every one point in the percentages of Americans with broadband leads to the creation of 300,000 jobs" – Study by the Brookings Institute. Calculating the total number of households eligible in the proposed "Last Mile" Funding Area we could indirectly create jobs for 16-people. This figure does not even take into account the additional business that will take advantage of the "middle mile" project, future expansion of the network or permanent jobs created by Hudson Valley Wireless. Although it is difficult to predict the amount of jobs directly or indirectly affected as a result of this project, this network gives us the opportunity to change the quality of life for thousands of people and increase their level of safety in the event of a natural disaster.