

Broadband USA Applications Database

Applicant Name: Electronic Solutions, Inc.

Project Title: Person County, NC Wireless Broadband Project

Project Type: Last Mile Remote

Executive Summary

EXECUTIVE SUMMARY OVERVIEW Person County is a rural county in north/central North Carolina. Broadband service is not available to a large number of rural citizens in the county. There are many documented request for broadband service throughout the county. Cable Internet and DSL are available to primarily the Roxboro township and a few outlying areas but remote areas do not have broadband service available. Our analysis of Person County broadband coverage has determined that with approximately 27 antenna sites, we would cover 95 – 98% of all the terrain and thus all the residents of Person County with high speed broadband Internet services. The estimated cost is \$3,008,500 which includes the equipment at the subscriber’s home or business. This project would provide broadband in all the communities in the County including Cunningham, Woodsdale, Holloway, Olive Hill, Roxboro, Allensville, Bushy Fork, Flat River and Mangum Townships. Census blocks 9801-9806 Person County has approximately 38,000 residents in a 400 sq. mile area. There is a City police station, County Sheriff’s office, 3 full time staffed fire departments, 12 public schools, 2 charter schools, 1 library, 1 hospital, 2 urgent care facilities, 1 family medical facility and 11 volunteer fire departments that also provide community center organizations. There are approx. 14,000 households and 770 businesses located in Person County. Person County is in the Piedmont of North Carolina and has topographical variations of approximately 400’ with rolling hills and lake beds.

PROPOSED PROJECT DESCRIPTION We propose to provide wireless broadband services using a series of existing and new neighborhood towers to distribute fixed base wireless broadband using Motorola Canopy equipment. We will utilize WiFi 802.11 b/g/n 2.4Ghz, unlicensed 900 Mhz and licensed 5Ghz equipment to serve a wide range of broadband requirements. Backbone Internet to our central tower will be via fiber optics cable. There are no limitations to the prospective customers that will connect to our network. The network will also be available to other carriers who desire to transport or sub-lease bandwidth. We are in agreement with local county government to share the network to deliver bandwidth to outlying facilities such as volunteer fire departments, UHF public service radio listening post and other shared public service facilities. Electronic Solutions, Inc. has been providing wireless broadband and wired DSL service in Roxboro and two remote areas for over 5 years. We have been an Internet Service Provider for over 10 years. We have grown our broadband network in the Roxboro area to over 400 customers with a total customer base of approximately 2000. The outlying areas of Person County have household density levels of 1-20 per sq. mile with a few areas having a density of over 100 per sq. mile. Approximately 50% of the outlying areas do not have broadband service availability. ESI has demonstrated that we can start-up, deploy and manage a broadband network to serve homes and businesses. We have had sustained growth each year since deploying broadband and continue to add satisfied customers. OVERALL

INFRASTRUCTURE COST Our cost of infrastructure to install 27 tower sites, backhaul, network upgrades, servers and subscriber units is \$3,008,500. **OVERALL EXPECTED SUBSCRIBER PROJECTIONS** Current survey estimates indicate approximately 50% of homes do not have any broadband access. Of the homes that do have access, approximately 30% subscribe to broadband Internet. That results in approximately 2,100 broadband subscribers out of 14,000 homes in the county. These numbers were previously validated by the local broadband carriers of ESI, Charter Cable and Embarq. More info at: www.connectnorthcarolina.org Person County data. The proposed Person County High Speed Wireless Broadband Internet Project would provide access to the remaining 7000 homes, public community centers, home schools, volunteer fire departments and approximately 200 businesses that do not currently have broadband access. Subscriber sign-up rates are estimated to increase from 30% to 50% due to the affordability of the wireless broadband resulting in new subscribers of 1800 to 3600. This would place the cost of each new subscriber at \$1671 - \$835 each. **NUMBER OF JOBS TO BE CREATED** We estimate that by adding 3,600 new subscribers would add 4 new, full-time, permanent positions to Electronic Solutions, Inc. based on historical data. We have previously served 2000 subscribers and adding 3,600 subscribers would increase our staff needs by approximately 60%. **SUMMARY** Person County has approximately 50% of the citizens without broadband service availability. Our citizens, workers, students and public at large need broadband access as a vital part of mere existence in todays society. Wireless broadband Internet is the least costly and has the fastest deployment of any available technologies. Embarq DSL and Charter Cable has determined that further expansion of their networks is not economical at this time due to cost per home. The Return on Investment is not sufficient to warrant expansion by Embarq or Charter Cable. Electronic Solutions, Inc. has demonstrated in the past that we can install, deploy and operate wireless broadband systems. We have a verifiable record within the community and have the support of our governmental leaders and state representatives to pursue this project. We have suppliers committed to providing equipment and services and we are prepared to break ground as soon as funding is provided. Our timeline depicts a 18 month completion date.

_____ Randy King – President Electronic Solutions, Inc.