



Axiom Technologies
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January 28, 2010

ConnectME Authority
Phillip Lindley, Executive Director
138 Statehouse Station
Augusta, ME 04333

Re: Round Four – Washington County Special Install Project

Funding requested: \$100,000.00

Dear Members of the Connect Maine Authority,

Axiom Technologies, submits this Pre-application letter for Round Four ConnectME funding.

In deploying wireless broadband in Washington County for the past five years, there are approximately 10% to 15% of homes and residents in Axiom's present service area that are completely "off-the-grid" and are not able to get a sufficient wireless signal for Internet connectivity. These homes and businesses cannot be served by the traditional carriers, Fairpoint Communications and Time Warner Cable.

Axiom's Field Engineers have been brainstorming and creating solutions for these homes and businesses that have no chance of ever getting broadband service. In some cases, small, 50 feet towers can be erected on the homeowner's property, in others, trenches dug and conduit run for hundreds of feet to reach an area to mount a radio that can receive a signal. These solutions are not a "typical" install in which we can charge the subscriber \$99.00 for the installation. These "off-the-grid" solutions are more costly and are not affordable by the home or business and not an affordable deployment option for Axiom.

Axiom is requesting a funding source to address these special installations. In each case, we will create a Professional Service Agreement specifically for the subscriber which will break down the labor costs, the equipment costs, rental of special equipment and any special permits. We propose that the Professional Service Agreements are submitted and reviewed by the ConnectME Authority. It is Axiom's opinion that this unique grant is a "last option" for these truly unserved subscribers, a "no subscriber left behind" concept.

Axiom Technologies is a telecommunications company located in Machias, Maine that provides broadband, Internet access options and technical computer and networking services to businesses and residential subscribers. We have been working diligently for the past five years in bringing high-speed, wireless broadband service to Washington County and beyond.

Service is provided to the customer's premises (either business or residential) via wireless technology. The systems utilized are fixed point to multipoint radio networks whereby multiple subscriber radios at the customer's premises connect to master transmitter sites on towers, hilltops and buildings that possess geographical advantages including height and clear sight lines. In this manner, site selection for these "Access Points" is similar in process to that of a cellular phone carrier; however, our cost to deploy transmitters is much lower, allowing more transmitters to be installed within a geographical area, thereby improving coverage and accessibility.

Axiom utilizes several different radio frequencies, 900 MHz, 2.4 GHz and 5.8 GHz which have proven very effective in high-speed broadband deployment. We have added 3.6 GHz radio gear to transmitter sites which enables the availability of a 10Mbit symmetrical product that is cost effective. Axiom has obtained the necessary FCC licensing to field and operate radio electronics in the 3.65 GHz band. The technologies utilized are capable of over-the-air data transmission rates up to 100mbit. Axiom's subscriber plans set customer bandwidth at between 1 and 10mbit downstream and 500k – 1.5mbit upstream for residential service. Up to 10mbit symmetrical service is available for businesses requiring increased upstream bandwidth for server hosting or similar applications. In addition to the advanced radio systems, Axiom will also be installing augmented power systems for protection against AC grid outages; the primary cause for service interruption in the Downeast region. These power systems utilize deep battery arrays and, where terrain permits, power generation via hybrid solar and wind generators.

Axiom has a proven technical last mile solution for pushing broadband into rural communities that have been historically blocked from service due to technological, geographical and financial hurdles. Five years of deployment and operation of our technology has demonstrated its viability as a cost effective, adaptable and reliable solution for rural Maine.

Axiom Technologies is committed to finding a broadband solution for the absolute unserved home and business in Washington County and is seeking \$100,000.00 in ConnectME grant funding.

Sincerely,

Susan M. Corbett, CEO

Nelson Geel, CTO