



Axiom Technologies  
3 Water St.  
Machias, ME 04654  
(207) 255-0679  
www.axiom-tech.net

---

January 28, 2010

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

Re: Round Four – Town of Blue Hill Broadband Project

Funding requested: \$106,992.55

Dear Members of the Connect Maine Authority,

Axiom Technologies, in collaboration with the Town of Blue Hill, submits this Pre-application letter for Round Four ConnectME funding. A letter of support from the Town of Blue Hill is attached.

Blue Hill has 1486 homes, based on the 2009 State Planning Office Projections. Axiom has contacted Time Warner Cable, Fairpoint Communications and Premium Choice Broadband and based on ongoing discussions will determine the unserved homes in this 56.7 square mile area.

Axiom has a Reseller's Agreement with Fairpoint Communications and is committed to deploying DSL where possible and only deploying wireless in the unserved areas.

Axiom has had discussions with Tom Federle, attorney for Time Warner Cable regarding overlap of service. An Overlap Avoidance Agreement will be signed by Axiom for Time Warner Cable if it is determined that there is cable Internet availability in some areas of Blue Hill. Time Warner Cable understands that wireless service knows no boundaries and that there will be crossover of Axiom's wireless network over Time Warner's existing coverage. However, per the Overlap Avoidance Agreement, Axiom will not deploy wireless service if the subscriber can access Time Warner's cable Internet service.

Premium Choice Broadband has some wireless coverage in the Blue Hill area and they have provided Axiom with maps depicting their coverage.

At a meeting represented by several towns in the Penobscot Region, including Blue Hill, on January 14, 2010, town officials and the public confirmed that Blue Hill has no broadband availability in several areas and requested Axiom to apply to the ConnectME Authority for funding. Lack of broadband in Blue Hill, Maine was confirmed via the ConnectME Broadband Availability mapping. These reports demonstrate the essential need for broadband capability in unserved areas of Blue Hill, Maine.

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. Expanding our existing network to include Blue Hill is technically viable and achievable within a relatively short time frame. A tower will be constructed (site to be determined) and an estimated four smaller, “mini-PoPs”, will be installed throughout the region to expand coverage in order to reach a 90% goal to the unserved areas. The Town of Blue Hill will provide the land, if site is viable, to construct the tower as part of the grant match.

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, in collaboration with the Town of Blue Hill, is committed to extending this proven technology into unserved areas and is seeking \$106,992.55 in ConnectME grant funding.

Sincerely,

Susan M. Corbett, CEO

Nelson Geel, CTO

## Town of Blue Hill, Maine

**SELECTMEN/ASSESSORS**

JOHN R. BANNISTER  
JAMES M. SCHATZ  
DUANE B. GRAY

**OVERSEERS OF DOOR**

JOHN R. BANNISTER  
JAMES M. SCHATZ  
DUANE B. GRAY

**ASSESSORS' AGENTS**

R. I. D. APPRAISALS

FIRST SETTLED 1762

INCORPORATED JAN. 30, 1789

SELECTMEN IN OFFICE  
FRIDAY AFTERNOONS  
P.O. Box 412  
Blue Hill, Maine 04614

**TREASURER/AIDM ASST.**

ANN STADDEN  
TAX COLLECTOR

ETTA PERKINS  
TOWN CLERK

ETTA PERKINS

ROAD COMMISSIONER

DAVID M. COUSINS

FIRE CHIEF

DENNIS ROBERTSON

SUPT. OF SCHOOLS

ARTHUR WITTNE

### BLUE HILL, MAINE

January 19, 2010

Mr. Phillip Lindley  
Executive Director  
Connect ME Authority  
138 State House Station  
Augusta, Maine 04333-0138

Dear Mr. Lindley:

Please consider this letter as a preliminary application for resources available under the current round of Connect ME Authority Grant Funds. Funding that is designed to provide broadband access to under and no service areas of rural Maine. Blue Hill, like many rural communities has many constituents who cannot access the Internet in a manner that allows their children to use laptop technology to assist in their education, as is the norm in other parts of the State. Further, we have many small businesses who are disadvantaged and other business interests who reject moving their activities to an area without broadband access. Additionally, the inability to become aware of information in a timely fashion deter our citizens' ability to acquire employment, apply for services and take advantage of materials formerly found in printed matter.

These are just some of the reasons we support the collaboration with Axiom Technologies to apply for Grant assistance from your Authority.

Thank you for your consideration in this matter.

Sincerely,

James M. Schatz