



Axiom Technologies  
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January 28, 2010

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

Re: Round Four – Town of Castine Broadband Project

Funding requested: \$82,583.18

Dear Members of the Connect Maine Authority,

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

Castine has 649 homes, based on the 2009 State Planning Office Projections. Axiom has contacted Time Warner Cable and Fairpoint Communications and based on ongoing discussions will determine the unserved homes in this 7.9 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 Castine. 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.

At a meeting represented by several towns in the Penobscot Region, including Castine, on January 14, 2010, town officials and the public confirmed that Castine has no broadband availability in several areas and requested Axiom to apply to the ConnectME

Authority for funding. Lack of broadband in Castine, Maine was confirmed via the ConnectME Broadband Availability mapping. These reports demonstrate the essential need for broadband capability in unserved areas of Castine, 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 Castine is technically viable and achievable within a relatively short time frame. A tower will be constructed (site to be determined) and an estimated two 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 Castine 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 Castine, is committed to extending this proven technology into unserved areas and is seeking \$82,583.18 in ConnectME grant funding.

Sincerely,

Susan M. Corbett, CEO

Nelson Geel, CTO



# CASTINE MAINE U.S.A.

January 20, 2010

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

Dear Mr. Lindley,

The Town of Castine would like to be included as an applicant for resources available under the current round of Connect ME Authority Grant Funds. We understand that these funds are designed to provide broadband access to under and no service areas of rural Maine.

Although Castine has some areas of town where either DSL through Fair Point or Cable internet through Time Warner is available, there are other areas of town where DSL is not available at all and to have cable put in would be cost prohibitive as some residents live far from the main road.

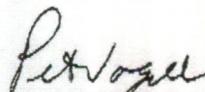
The world is becoming more and more dependent on receiving information through the internet. Just recently the Town Offices in Maine were notified that they would no longer receive paper copies of Maine Income Tax Forms and booklets to disburse to residents. They have to be obtained on-line or by calling or writing Maine Revenue Services. We think it important that all Maine residents be given efficient and affordable internet service to take care of everyday life.

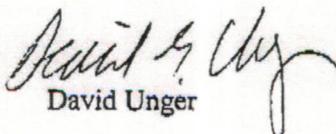
Castine is also the home to Maine Maritime Academy. Although the campus has efficient internet connection available to staff and students, some students and employees live off campus in rural areas of Castine and neighboring towns where nothing but dial-up service is available. All of our elementary, high school and secondary students need to have internet available in a manner that they can take full advantage of the technology to assist them with their education. This is not only true to Castine but to all Maine communities.

The Town of Castine supports the collaboration with Axiom Technologies to apply for Grant assistance from your Authority. We not only support for ourselves, but also for our neighbors.

Thank you for your consideration with this matter.

Sincerely,

  
Peter Vogell, Chair  
Board of Selectmen

  
David Unger

  
Constantino "Gus" Basile

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Town of Castine Municipal Offices

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