

## Solution Cover Sheet

Name of Respondent Organization

Technology in Education Partnership of Western Mass. (TEP-WM) / Town of Colrain

Mailing Address  
227 W. Leyden Rd

City/Town  
Colrain

State  
MA

Zip Code  
01340

Telephone  
(413) 624-5557

Fax

Respondent Web Address  
www.tep-wm.org

Name of Primary Contact (Individual)  
David Greenberg

Primary Contact Title  
Exec. Dir., TEP-WM / Chair, Colrain Broadband Comm.

Contact e-mail address  
dgreenberg@tep-wm.org

Direct Telephone #  
(413) 624-5557

Which of the following best describes the respondent: (You must select at least one)

- Broadband Service Provider
- Government Organization
- Equipment Manufacturer
- Non-profit Organization
- Equipment Vendor
- Owner of Physical Assets

(please specify Asset: \_\_\_\_\_  
\_\_\_\_\_)

- Network or Systems Integrator
- Interested Individual
- Investor/Venture Capital
- Consultant
- Advocacy Group
- Other

(please specify Other: \_\_\_\_\_  
\_\_\_\_\_)

Brief Description of Organization

(please outline previous experience with broadband deployment and/or provision of broadband services)

The mission of the Technology in Education Partnership of Western Massachusetts is to plan, implement and sustain the development of integrated multimedia technologies and electronic information resources in order to promote successful teaching and learning in the pre-elementary, elementary, and secondary educational institutions of western Mass. All of the school districts of Franklin County and most of those in Hampshire County belong to the organization.

The Town of Colrain, until quite recently, had no broadband access other than satellite. Verizon and Crocker Communications have since begun offering limited DSL service to perhaps half of the town's residents.

List of anticipated partner organizations

Crocker Communications

## Introduction

As an educator, technology consultant and town official, the need for broadband access to the Internet is paramount. I am online eight to ten hours per day. Therefore, there is one critical assumption that I will make with regard to the implementation of broadband access to western Mass. To survive economically and to level the playing field with the rest of the Commonwealth, we will need to plan for fiber to the desktop. That said, I will address a subset of the key questions mentioned in the Call for Solutions.

## Technical Model and Approach

I foresee the equivalent of a public Ipv6 fiber network that covers all of western Mass. with POPs in Springfield and perhaps Pittsfield or Albany. All Internet service and content providers will have equal access to this network in order to supply telephony, Internet and video products. It will be the responsibility of the homeowner to pay for the cost of running fiber from the nearest pole to the house.

## Business Model and Approach

I believe that broadband implementation should follow the model of rural electrification. The money allocated is clearly not enough and it should be leveraged with federal money in accordance with President Obama's emphasis on investing in infrastructure. Washington should finally be receptive to our requests for financial aid to provide high speed, high quality access to the Internet in western Mass. A secondary benefit of an infusion of capital into the area will be the creation of much-needed jobs in some of the poorest parts of the Commonwealth.

## Service Area

I would encourage the solution to reach all un-served and under-served citizens in western Massachusetts, even if this means a combination of fiber, wireless and other technologies.

## Partnerships

TEP-WM would like to play a role in this project. I believe that we could involve students in much of the initial research that has to be done. For example, with minimal training, we could supply students and other citizens with GPS receivers and teach them how to save the coordinates of power/telephone poles. We might also be able to do a portion of the GIS mapping that will be required.

Furthermore, when access is provided, schools could perhaps collaborate with ISPs by offering workshops and technical support to help residents take advantage of broadband access. This could lower the entry costs for ISPs and build community support for the project. I would hope that MBI would encourage the participation of schools by providing funding to implement the

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educational component of the project. There are many benefits to having the schools involved. Authentic, project-based learning activities such as those that would be offered by having students directly involved in implementing broadband access in their communities, would align nicely with state frameworks around science, technology, engineering and mathematics (STEM). Furthermore, any project that encourages mutual support between the towns and the schools is very helpful during these times of intense financial stress in our communities.

### Financing

The Commonwealth should own the fiber backbone. Ownership of this asset will allow the Commonwealth to implement net neutrality, which is of the utmost importance to Internet users. All for-profit companies will have equal access. Provisions may need to be made, however, that guarantee that smaller, locally-owned enterprises can compete with Verizon and Comcast. The reality is that the national and multinational corporations could care less about the plight of western Mass. and just suck our money out of the region. Several years ago I was told unequivocally that Verizon would *never* bring DSL to Colrain because it was not profitable to do so. As we all know, this is not about profit; it is about equal access and the need to make our state competitive in a global market. Therefore, to protect the Commonwealth's investment, it must facilitate the participation of local players. The federal government must also contribute funds to make this network a reality.

### Other

I am trying to work with Verizon to get a better idea of the DSL service area in Colrain. I hope to be able to make a reasonably accurate map that shows the location of poles and houses and information about who is eligible for DSL and who isn't.

Another model that we might want to consider would be a cooperative model. Perhaps one or more non-profit cooperatives could take some of the financial strain off of the ISPs that are providing services to very rural, low density areas. One scenario would be that the non-profits could take on tasks like billing and low level technical support.