## Project History

In 1992, Shutesbury voted down a \$500 fee for a Cable Vision survey. This meant that cable service was not to be built in Shutesbury. In the following years, the cable companies were not interested in building here given our low population and despite later requests for internet service.

As the Internet evolved in the 1980's and 1990's, with no cable service available, Shutesbury first began using the Internet via phone lines, becoming a "dial-up" community. As the provider of phone service, Verizon offered the dialup service.

With the arrival of the 21st century, dialup was a thing of the past for many urban communities and larger towns like Amherst. Broadband was the new technology - providing faster connections and capacity (bandwidth). Broadband was primarily available through cable companies or DSL through the phone company. It was rare for any communities to have fiber optic cable yet.

At this time, ad hoc groups in Shutesbury and Leverett popped up. In July of 2003, the Selectboard formally created a town committee to research how Broadband could be made available to residents. The charge of the Shutesbury Leverett Broadband Committee in 2003 was to research technologies for Internet, television and phone services, analyze costs and recommend service providers to the Selectboard.

During this period through to 2008 the Broadband Committee lobbied Verizon and cable companies to bring internet and cable services to Shutesbury. The Committee facilitated a Comcast survey to demonstrate resident interest. Comcast determined the town had too few residents to support any infrastructure improvements in Shutesbury. During this period, The Shutesbury-Leverett Broadband Committee added the town of Wendell to broaden its membership and strengthen its efforts. The expanded committee collected information from the public, lobbied local legislators for funding and support and made the digital divide in rural Massachusetts a topic of discussion.

Turned away by provider after provider the Committee began to look at the possibility of building a municipal internet system. Along with other communities in Western Massachusetts, the SLW Broadband Committee began discussions with the Franklin Regional Council of Government (FRCOG) to build regional support and explore new options. FRCOG developed groups called the "Connects" to study the best plan for broadband build out in Massachusetts. In 2006, the Connects received \$300,000 in grant money through Mass Technology Collaborative.

In 2008 Deval Patrick ran for governor. Thanks to efforts that educated the Western Massachusetts legislative delegation, the new governor's administration was informed about the rural challenges for Internet access. Deploying high speed Internet became a top priority of his incoming administration. He signed the Broadband Act into law August 2008. The act authorized the Mass Broadband Institute (MBI) to develop a comprehensive Broadband plan as well as \$40 million in bond funds. The plan was to leverage public funds to incentivize private investment.

During this period, Verizon upgraded its service to provide expanded DSL Internet service for some of its customers in Shutesbury. While DSL was faster than dialup, it was an old technology that also used the phone lines and was limited by distance from a phone box. This meant that only a portion of Shutesbury was able to get DSL service. Areas near Amherst and Lake Wyola, and on the fringes of main roads to did not get DSL service. And as the copper phone lines providing phone and dialup service throughout town began degrading, frustration grew. In addition, because Verizon did not see a future in investing in phone service, if someone let go of their DSL account, the new resident could not get it.

Following the national recession, federal funds for Broadband became available under Obama's American Recovery and Reinvestment Act of 2009. MBI's first grant application was for a full Broadband buildout going into every unserved and underserved city and town. The plan was rejected and MBI reapplied with a modified plan to create the so-called "Middle Mile" which would create a backbone in Western Mass, connecting anchor institutions in each community across the western part of the Commonwealth. For Shutesbury this meant the library, school and town hall. The MBI 123, middle mile construction began in 2010.

As the middle mile was being built towns in western Mass still worried about how residents could get broadband. While connecting libraries and town halls to the Internet was good (allowing people to sit in their cars to get Wifi signal), the need was to get connection to homes. Starting in 2011, the towns quickly realized that they needed to band together in order to address the complexity and cost of bringing broadband to rural Western Massachusetts. The challenge however was that towns are designed legally to be separate so they needed to find a model where they could work together. Additionally, towns are not designed to run businesses, even to help their residents, so this was another important aspect of the model to be explored.

After exploring coop models and other options, it was determined that Municipal Lighting Plants were the way to connect the towns. Traditionally these were intended to provide power (like Holyoke Gas and Electric) but in Mass. law they could also be used for telecommunications. If each town created its own Municipal Light Plant, these MLPs could band together to jointly do business and create new opportunities for bringing broadband to Western Mass.

The entity that was to be formed by the coming together of these town MLPs was called WiredWest - an effort led by town leaders and residents from all four counties of western Massachusetts. Ultimately over twenty towns voted to create their own MLP and to join together to become WiredWest, a municipal light plant cooperative. Shutesbury was one of the founding members. The members of the Select Board were the first board members of the Shutesbury MLP. The Board Members appointed the MLP Manager and WiredWest delegates. The delegates attended meetings across western Mass., creating a business plan, a marketing plan, securing MBI grant funding for their continued work. Delegates were responsible for communicating with their Selectboards and townspeople. WiredWest became an effective lobbying body while it moved towards the goal of securing funding for the construction of a western Mass regional fiber network buildout.

WiredWest was instrumental in securing the next round of funding after the completion of the Middle Mile infrastructure. The Massachusetts Broadband Institute (MBI) allocated \$50 million of state funds to complete the Last Mile and help bring service to homes. Shutesbury was included in the group of unserved towns slated to get part of the grant funds. MBI was the government organization initially responsible for managing the Last Mile program, and they began to work with WiredWest cooperative of towns to help create a regional cooperative solution. In conjunction with MBI, the plan was that WiredWest would build and operate a regional fiber optic network.

In 2014, in Shutesbury, a town information meeting was held to talk about where we were on broadband. People were energized and wanted work together to solve the internet problem. It was at this time that the Shutesbury Broadband Committee became active again, involving some of the original members and some new members. The new Broadband Committee charge was written and the committee was appointed by the Selectboard. The committee was focused on various options for bring Broadband to Shutesbury, both technological (fiber was preferred) and organizational. The Committee worked diligently to evaluate the pros and cons of Wired West, staying open minded in determining what course of action was the best to take, what alternatives existed.

At the Annual Town Meeting (ATM) on 5/2/2015 Shutesbury voters overwhelmingly approved an appropriation and borrowing authorization of \$1.7 Million as the town's share of the fiber network construction cost, estimated to be around \$2.5 Million, for which the state and MBI would contribute \$870,000 from the \$50 million budget that had been created to support the construction efforts in all of the underserved towns in Western Massachusetts. This provided the necessary funding to begin serious planning. The regional cooperative plan through WiredWest remained a viable option. The neighboring town of Leverett had completed their own network, providing a model to follow for an independent town operation. In addition, some cable and private companies expressed interest in serving Shutesbury if the town would give over all of their state grant funds to support the private enterprises.

In 2015 WiredWest launched a pre-subscription campaign to prove project viability and in Shutesbury over 60% of town residents gave a \$49 pledge to show their support of the project. Support continued in the fall of 2015 when over 50 volunteers spent a Saturday doing an inventory on all 1508 utility poles within Town borders which was needed to apply for attachment licenses for our network.

However, in 2015 the state changed its policy effectively shutting WiredWest out of the process. MBI cancelled the cooperative arrangement with Wired West and agreed to take on the network construction themselves. Subsequently, progress for all projects throughout the state ground to a halt and in early 2017 MBI dropped their plans to build the network. Throughout the spring of 2017 towns became increasingly frustrated at the lack of progress by MBI. Due to public pressure to allow towns like Shutesbury to move forward with municipally-owned networks, the Governor removed the "grant only" program from the control of the MBI and put it under the administration of the EOHED (Executive Office of Housing and Economic Development) in April 2017.

Shutesbury broadband officials immediately applied to the EOHED for their grant funding and was one of the first towns to be approved. Make-ready applications were quickly submitted to National Grid, Verizon and Eversource in order to obtain licenses to use the utility pole infrastructure. Next came almost two years of trying to move the work forward using the utility company's outdated and woefully inefficient process for completing the make-ready work. Licenses finally started to trickle in eight months after submission. The state recognized the inefficiency and expense of the process and stepped in

during 2018 to help move the process forward with the promise of additional financial support. By the end of 2018 Shutesbury had all of its licenses for all of the 1500 utility poles in town and a written promise of additional grant funding for the makeready overages.

In advance of the licenses to use the utility poles, Shutesbury broadband members worked with Westfield Gas & Electric on a full engineering design plan and municipal construction bid. Tri-Wire won the bid to build the fiber network in our town. Tri-Wire began work on January 1st, 2019 and completed all 39 miles of mainline distribution network by June 1, 2019.

While mainline network was under construction, another bid was submitted for the last phase of the project for the drop construction. At a Special Town Meeting in March 2019 residents voted overwhelmingly to use \$274,000 in additional town funds to cover the cost of all of the drop installations for all residents for a nominal charge of \$200. Sertex LLC won the bid and the first homes were installed in July 2019.

Throughout all phases of construction, technical support and project management was provided by Holyoke Gas & Electric.

On December 26, 2019 the last of the ~765 subscribed homes and businesses were connected and the project was complete. Shutesbury had succeeded in building an end-to-end network in less than one year, faster than any town in Massachusetts.

This final year of construction was built on the efforts of fifteen years many iterations of hard-working volunteer groups and individuals.