TelePulse’s patented Dynamic Time Metered Delivery (DTMD) technology enables broadband service providers to significantly expand the number of US citizens they can reach and the data rates they provide using their existing copper wire infrastructure. TelePulse will leverage its expertise, available technology and stimulus funding to provide DTMD capabilities to broadband service providers in two primary ways. Where the provider has already deployed the much more limited Digital Subscriber Line (DSL) technology, we will provide upgrades via insertion of DTMD chips into existing DSL equipment. Where the provider has not deployed any digital broadband access equipment, we will provide DTMD Access Multiplexers and Customer Premises Equipment (CPE). We believe that our ability to optimize the broadband utilization of the significant amount of existing copper infrastructure nationwide will be a highly efficient use of stimulus funds.

Nationwide the number of un-served broadband homes is likely in the range of 6-8 million and underserved in the range of 10-20 million households. These numbers are estimates taken from data at The National Cable and Telecommunications Association, “Down Payment On Our Digital Future” by Free Press Action Fund and FCC form 477 data. Data from Chilson Enterprises show that even in the smallest and remote of rural towns with central offices averaging 1,800 lines, over 90% of those loop lengths are less than 31,000ft. Better information on all of these numbers should be available after the finish of the National Broadband Mapping program. Assuming we use the 90% figure then 5.4 -7.2 million of the un-served can be enabled with a broadband of 1.5Mbps on their current lines using a DTMD access multiplexer in the central office and a compatible modem at the customer premises. This removes any technological barrier to providing the un-served with broadband.

Our approach is innovative because it uses new technology over the challenging, existing and virtually abandoned phone lines thereby removing the barrier that keeps end users from getting broadband service. It is also innovative because its radical decrease in cost to scale up the service encourages the service provider to offer more data intensive applications to end users. With the elimination of the technology barrier and the radical decrease in cost to deploy, being un-served or underserved will be a matter of customer choice.

Our approach is innovative because it rejuvenates the US based telecommunications equipment market and energizes US high tech manufacturing markets for global sales and generates new “shovel ready” implementation jobs. We bring a fresh, new, and powerful technology into a market that has become quite mature and foreign based. DTMD technology is suitable for all twisted pair access lines. In the US
that means that although phone lines in use have fallen below 200 M, the actual number of lines useable for DTMD is over 280M. The critical infrastructure wireline will again be valuable. Globally, the market is over 1.5B lines and growing at 3.35% annually (FCC and ITU statistics).

We are targeting several audiences:

1. Rural Central Offices where end users are served by copper twisted pair but either their distance from the CO or their low concentration makes the deployment of broadband at 3Mbps or more unfeasible either technologically or economically

2. Urban or sub-urban central offices where end users are served by copper twisted pair but their personal economic demographic situation is such that they cannot afford the broadband services at 3Mbps or more that are available around them

TelePulse Technologies has 16 scientists and engineers on its team, including 3 PhD’s, bringing together over 200 years of technology innovation and implementation experience, over 25 issued patents, and an enormous volume of scholarly publications. Current Team has significant experience in, business and large scale project management; telecom business development; invention and technology innovation in required signal generation and processing; technology and product development for telecommunications; rapid prototyping and conversion from FPGA to ASIC; designing and testing to rigorous standards; systems engineering and management; wireline installation and CO operations; manufacturing engineering and product design for large scale production.

WE ARE READY TO MOVE INSTANTLY. The people are in place to begin right away. The manufacturer is ready to start working with us. Favorable talks are already in progress with local phone companies for demonstration. As we get closer to field testing we will narrow down which phone company and which lines at which central office. This will allow us maximum flexibility to make sure we demonstrate a diversity of operating environments. TelePulse has experienced performers who have planned and implemented projects taking innovative technologies and getting them fielded in applications that have significant and serious constraints for over 25 years. The bulk of the experience comes from rigid military applications of custom-modified Commercial Off-The-Shelf components and subsystems.

This project will generate 32 jobs utilizing BTOP funds direct to TelePulse Technologies and associated contractors. Post project downstream production of equipment to serve at least 10% of the known unserved market (800,000 lines) would generate 10,000-16,000 man-years of high tech labor for manufacture and nearly 700,000 man years in rollout installation and service with the phone companies.

The overall cost of the project is $9,768,882.