Highland has a vision of making broadband affordable and ubiquitous so that all of its citizens may enjoy access leading towards an improved quality of life and societal collaboration. Highland will utilize a Middle Mile Broadband infrastructure project to improve communications and services between all divisions of local government; improve reliability and efficiency of electric, sewer and water utilities; provide the opportunity for affordable, reliable true broadband to underserved rural areas; further differentiate community by having area wide fiber optic infrastructure. Provide connectivity to community anchor institutions. Improve cost and reliability of public safety through shared information resources. Highland, Illinois is located in Madison County in west central area of the state. The city has a population of 9,449. The Middle Mile service area of the fiber infrastructure will pass 1,410 households and 332 businesses, focusing on the 54 community anchor institutions and public safety entities. These include: 1. City of Highland ' all civil government buildings and departments 2. Highland Municipal Utilities ' all Electric, Sewer, and Water buildings, substations, wells, water towers, and several lift stations. 3. Madison County Government ' all buildings and departments 4. St. Joseph's Hospital ' and on site independent businesses. 5. Highland School District ' all schools, less one very rural k-6 6. Madison County Sheriff's Dept., Highland Police Dept., Highland Fire Dept. 7. Visiting State Police Officers 8. Latzer Memorial Public Library 9. Korte Recreation Center 10. Lindendale Pool 11. All major community parks Additionally, Highland is anticipating a 45% subscriber take rate due to the interest expressed by the community referendum. Proposed services and applications for the proposed funded service areas and users: 1. Broadband Internet 2. 10M-1G Point to Point circuits linking critical community organizations 3. Low cost Tier 3 Data Center Colocation space rental 4. Residential and Business Telephone Service 5. Video Service ' 200+ channels, PPV, future VOD 6. Enhanced Community facing E-Government available to all. 7. Enhanced Smart Grid for Electric System ' efficiency, reliability, cost control. 8. Improved Public Safety via increased synergies and cost reduction. 9. Improved community notification of environmental threats. Highland is in full compliance with the spirit and letter of the BTOP requirements for interconnection and non-discrimination. Type of broadband system that will be deployed (network type and technology standard) Fiber to the Premise using either Enablence Trident T7 IEEE Standards based Gbps Passive Optical Network or Adtran TA5000 or Calix C7 GPON or. Split shall be from 1x2 to 1x32 depending on the subscribers speed requirements and geography. Bid price, manufacturer's stability and product functionality will determine the vendor. A comprehensive strategic business plan was developed by Spectrum Engineering Corporation, a highly respected FTTP engineering and business consulting firm. Their plans are highly regarded for their completeness and accuracy regarding capital and operating expenditures as well as revenues and debt service. After taking into
account variables such as technology refresh, inflation and running a sensitivity analysis against the model, Spectrum has determined that this project should survive in perpetuity barring any cataclysmic event. As for Highland, it has performed its planning functions with excellence over the past two years. Highland will not require contracts on any service below enterprise level that are coupled to a service level agreement. Highland, classified as a City or Township Government, has developed a project that addresses all seven items included in the CCI Priority Checklist with a Middle Mile infrastructure. The city has developed a project budget that incorporates a 42.4% match in funds. Total project budget: $2,286,377 Federal Grant Request: $1,316,153 City Match: $970,224. Highland is projecting 7 indirect jobs created and 1 induced jobs from this project. These figures are derived in accordance with the Council of Economic Advisors guidelines of May, 2009.