

Executive Summary of Project for BIP and BTOP:

8. Infrastructure Projects Executive Summary

(a) The Applicant, Clear Partner Holdings LLC (a Clearwire Corporation subsidiary), has a superb opportunity to demonstrate that it can leverage BTOP program funds cost-effectively to increase broadband penetration in an area where it is critically needed. In Applicant's proposed funded service area ("PFSA") of San Juan and Caguas, Puerto Rico, plus the highway in between those two cities, there are demographic factors that make broadband penetration challenging—over 40% of families in the PFSA live below the poverty line, median household income is 60% below the U.S. average and unemployment is 14.2%, which is nearly 50% above the U.S. average. Access to always-on ubiquitous high-speed wireless Internet services can help turn these indicators in a more positive direction, through technology-based education, training and productivity advances that will benefit these challenged communities.

Due to the economic conditions in the PFSA, the core population in the 159 square mile PFSA lags well behind the U.S. national average in adoption of high-speed broadband services with less than 40% of households subscribing to broadband. To address these needs, Applicant is proposing a fully "shovel ready" infrastructure project that efficiently leverages a BTOP grant of \$20,281,000 to support an economic stimulus project that will generate dozens of immediate jobs and hundreds of sustainable jobs in the long-term, provide enhanced public safety, education, health care and e-government capabilities, and create new economic development opportunities within the PFSA. Without ARRA funding, Applicant would not construct the proposed next-generation WiMAX wireless network in the PFSA. If grant funding is awarded, its impact will reach beyond the PFSA and its 986,848 people. Applicant's wireless broadband network will be capable of providing integrated access to high-speed data, voice, video on demand and interactive delivery services via the Internet at speeds that rival wireline broadband. In addition, the network will offer the benefit of mobility, a capability that a recent Pew Research Center study confirms is essential to adoption by Hispanics who are among the most active users of mobile Internet services among all Americans.

In related broadband stimulus applications, the Hispanic Information and Telecommunications Network ("HITN") is proposing a broadband adoption and sustainability program to ensure that the benefits of Applicant's mobile broadband services reach the PFSA's most vulnerable populations, as well as a public computer center project (see HITN's "CBO Connect for Puerto Rico" applications).

[REDACTED]

[REDACTED] Applicant's Project has community support and represents exactly the type of initiative envisioned by Congress when it enacted the ARRA because it will spur job creation and stimulate long-term economic growth and opportunity in a distressed community.

(b) The PFSA covers 159 square miles, including San Juan and Caguas, Puerto Rico, and the highway between those two cities.

(c) Applicant proposes to cover 384,687 households, 1,583 businesses and a population of 986,848 in the PFSA.

(d) In the PFSA, there are approximately 14 schools, 19 hospitals, 73 police departments, 28 care facilities for the elderly, 58 community and emergency relief facilities, 20 ambulatory health care facilities, 2 airports and a subway/rail facility. Further, this Project dovetails with broadband stimulus applications being filed by HITN to address broadband adoption and sustainability in Applicant's PFSA and to expand public center computer capacity in the area.

(e) Applicant utilizes WiMAX technology that enables mobile and fixed communications over a wireless broadband network at speeds that are multiple times faster than today's mobile wireless networks. With embedded WiMAX chipsets in laptops, phones, PDAs, mobile Internet devices and consumer electronic equipment, mobile WiMAX technology allows subscribers to wirelessly access a range of multimedia applications, such as live videoconferencing and large data files, anywhere in the network coverage area. WiMAX mobility and high-speed Internet access promise to offer cost-efficient and effective solutions for consumers and community institutions that desire or require untethered Internet connections, therefore providing a connection that wired technologies or earlier generations of mobile broadband cannot deliver. In addition, subscribers will enjoy wide-area coverage throughout the PFSA and when they travel to more than 50 U.S. and foreign markets operated by Applicant's parent, Clearwire.

In addition to commercial services, Applicant, [REDACTED], will provide support to community centers and schools that will enable PFSA residents and students to access the Internet using mobile wireless devices. As HITN explains more fully in its application, the deployment of mobile wireless devices should be particularly effective in shrinking Puerto Rico's digital divide, especially among minority end users.

(f) Applicant's WiMAX network is based on an open standard technology platform that encourages innovation by equipment and application developers because there is no barrier to entering the marketplace. Before it initiates service in the PFSA, Applicant will publicly post on its website terms of service that adhere to the four principles set forth in the Federal Communication Commission's Internet Policy Statement. Subscribers will be able to download and use any device or application, content or service they desire, subject to reasonable network management practices and law enforcement and public safety considerations. In short, Applicant is fully prepared to implement the non-discrimination and interconnection obligations of the BTOP program as part of its standard business practices in the PFSA.

(g) Applicant's proposed network is based on the mobile WiMAX standard that supports wireless fixed, portable and mobile service offerings using a single network architecture. Applicant will be using WiMAX in conjunction with licensed and leased BRS/EBS spectrum in the 2.5 GHz band. Applicant's network will combine some of the best features of cellular, cable modem, DSL and Wi-Fi networks, without the inherent limitations associated with those legacy systems. WiMAX is the first widely deployed network designed and built from inception to deliver a full range of broadband content and applications.

(h) Applicant is a wholly-owned subsidiary of Clearwire, an experienced broadband service provider that builds and operates next generation wireless broadband networks that provide entire communities with high-speed residential and mobile Internet access services and voice services. Clearwire currently provides wireless broadband services using mobile WiMAX technology in three markets and provides pre-WiMAX communications services in 50 markets across the U.S. and Europe covering approximately 18.2 million people. Applicant has entered into a Memorandum of Understanding ("MOU") with Clearwire (Exhibit 1 in Supplemental Materials) that will permit Applicant to rapidly and affordably bring WiMAX broadband services to the PFSA by giving Applicant access to all necessary licenses, vendor contracts and management support to expeditiously complete the Project. Other advantages of Applicant's proposal include:

- simple self-installation by subscribers and provisioning of modems;
- easy network and tower installation process and deployment requirements;

- flexible and scalable IP based architecture capable of very high capacity and efficient Quality of Service;
- overlapping coverage from multiple sites for reliable and robust connectivity;
- enhanced reliability and reduced latency provided by linking towers via a microwave ring topology that carry the majority of backhaul traffic over licensed and unlicensed frequencies; and
- significant spectrum assets in the PFSA, thus allowing Applicant to deliver data intensive multimedia content and provide protection against interruption and degradation of service.

(i) Attachment G of this application contains Applicant's overall infrastructure cost for this Project.

(j) Attachment H of this application contains Applicant's overall expected subscriber projections for the Project.

(k) Applicant estimates that its Project will create or save approximately 787 U.S. jobs through the end of 2018. Approximately 257 of those jobs are temporary and 530 are estimated to be annually recurring new or saved jobs. Network deployment in the PFSA will immediately create approximately 257 "shovel ready" jobs over the course of the proposed network build timeline (estimated to last 18 months). Of those jobs, 79 result from direct capital investment and another 178 are estimated to be ripple effects from Applicant's contractors' spending on suppliers and the increased local spending from those new employees. These "ripple effect jobs" are known as indirect and induced jobs and are estimated using Industry-based Employment Multipliers (Type II) based on the latest Puerto Rican data. Applicant itself will create approximately 25 new annually recurring jobs as a result of the local team needed to operate a wireless broadband network in the PFSA. These ongoing operations also are estimated to produce 39 additional annually recurring indirect and induced jobs based on the Puerto Rican Multipliers. Applicant's analysis demonstrates that broadband adoption within the PFSA could add another 466 jobs to the US economy by 2018. This analysis is based primarily on the baseline results of leading economic studies and Applicant's estimation of "new to broadband" users that will sign up for its services.