Broadband USA Applications Database

Applicant Name:  AMERICAN CARIBBEAN BROADBAND ALLIANCE, LLC

Project Title:  American Caribbean Broadband Alliance project for the underserved people of the U.S. Virgin Islands

Project Type:  Comprehensive Community Infrastructure

_______________________ Executive Summary ______________________

Executive Summary: The US Virgin Islands is 1300 south of Miami, entirely rural, terribly impoverished and uniquely underserved. Because of geography (islands) and topography (mountainous), plus extraordinarily high cost of backhaul to mainland and btw Islands, the Middle Mile (MM) will never be built without NTIA assistance. Most of our 108,000 citizens are indigenous people descended from the African Diaspora and Caribbean Indians; 12% are Caucasian. The largest employer is the territorial gov which pays low wages and is so cash-strapped that it annually issues bonds to pay expenses. The leading industry is tourism, offering little economic opportunity beyond housekeeping and maintenance jobs. ~1 in 4 Vi-ers live in poverty. Phone and BB cos. in the VI charge among the highest rates in the US but offer notoriously unreliable service; the phone co's own engineers declared its infrastructure archaic and beyond repair; speed and quality of available BB is ranked 52 of 53 US jurisdictions. 26% of us use the Internet. Our survey of 1,227 RES (necessitated by VI Gov refusal to share ARRA/BB mapping data) confirms the entire VI is underserved by BB: 56% have BB speed below 768kbps; 92% have speed below 5 Mbps. Lack of Affordable BB inhibits economic development, social inclusion, education, healthcare + other important community concerns. BTOP funding for MM accessible to all at reasonable cost is the critical first step in turning the page on the VI's history of exploitation, isolation, and economic and intellectual stagnation. American Caribbean Broadband Alliance (ACBA) is a VI company comprised of a for-profit co., nonprofit foundation, Small Disadvantaged Bus and communications engineering firm. Our key people have decades of experience in design, construction, operation and management of telecom projects in the VI and remote locales globally and have worked together on projects similar to and larger in scope than this proposal. ACBA will construct CCI with the redundant backbone needed in emergencies caused by hurricanes. Project budget=$42,272,639; BTOP grant requested=$31,691,797. Cash commitment=$10,580,842/25.03%. HOWEVER ACBA cash contribution exceeds 30% of project budget but for $7M cost of submarine fiber to mainland and btw islands. We estimate VI backhaul costs 5X more than in mainland. NTIA should not penalize ACBA+VI due to extraordinary cost unique to Caribbean location. Our nonprofit partner will donate $200,000 of computers and other BB equipment to schools and community centers and provide training in basic computer skills. If funded we will partner with the University of the Virgin Islands Research and Technology Park, the VI gov instrumentality charged with promoting economic growth by fostering knowledge-based and communications network-based sectors. This partnership is key to achieving ARRA's overarching goals of job creation through long-term economic growth and opportunity. ACBA is shovel-ready and confident that our experience in remote-location BB construction will enable us to
complete this project within 36 months. Our CCI will first provide BB to CAI. Law enforcement, public safety, emergency services and coast guard communities will benefit from increased Internet speeds and bandwidth to support applications like remote video capture and surveillance. Healthcare providers can improve service quality by using higher-speed connectivity for large diagnostic (MRI, X-Ray) scans and remote specialized care, creating much-needed revenue for VI's economically-troubled public hospitals. Schools and libraries will benefit from improved communication platforms and BB to support distance learning, video distribution and other educational enhancements. By enabling last-mile providers (LMP) to connect to RES and BUS for less, the CCI will be a vehicle for long-term economic growth. Our application is endorsed by letter by VI Delegate to the US House of Representatives Donna Christensen, RT Park Executive Director David Zumwalt and several VI Senators, including that body's Vice President. We also have the written support of the VI's two nonprofit ARRA grant recipients Women's Coalition of St. Croix and Lutheran Social Services with whom we will collaborate to maximize the benefits flowing from their awards. If funded we will lease space in the RT Park's federally-funded LEEDS HQ, closing its construction-funding gap. We have support letters from business owners, attorneys, physicians, educators, students and consumers. BTOP funding is necessary to overcome barriers to entry to the VI BB provider market and anti-competitive conduct. Mountains, rocky terrain, Caribbean Sea, rain forests, rural population and backhaul cost to mainland and btw islands (ie, $7M for submarine fiber) combine to render a purely private-sector solution to its MM needs economically unfeasible. The closed access of the limited fiber cable here creates another barrier to entry. Bandwidth from existing submarine cable btw the Islands is further limited due to providers' need to maintain capacity for diverse protection routing (C1 Route) for their MidAtlantic and S. American routes. The largest line item of our project budget is $7M for submarine fiber to mainland and btw the Islands which is key to CCI sustainability because BB traffic is now dependent on fiber owned by AT&T whose dominant market share results in extraordinarily high access costs imposing a significant barrier to entry. We estimate VI backhaul cost at 5X more than the mainland. ACBA cash commitment of $10,580,841 is more than 30% of project budget but for the cost of submarine fiber. Including VI's extraordinary backhaul cost, ACBA cash commitment is 25.03% of entire project budget. VI govt has engaged in anti-competitive conduct by denying ACBA access to the BB mapping data compiled with ARRA funds. VI Gov deJongh acknowledges the strength of our plan and outstanding bona fides of our team; he concedes private-sector plans with private cash contributions are often superior to govt plans but he endorses only the govt application; refused to allow govt officials to endorse our plan; his BTOP consultant demanded control of all (BTOP+ACBA) funds. b. The PFSA includes the entire VI (St. Croix/13 census communities; St. Thomas/9; St John/6). The coverage area is 134 sq.miles serving ~108,612 people. c, d. The BTOP CCI MM project will pass 40,648 HH, 5,538 BUS and all CAI, PSE & CCF incl. 104 Schools, 10 Libraries, 20 Medical/Healthcare Providers, 42 PSE, 5 Higher Education Institutions, 35 Community Support Orgs+138 gov facilities. e. The network will offer open-access, standards-based Advanced MM BB Services incl. Internet and pt-to-pt transport@ tiers from 10-100 Mbps of bandwidth. MM services will be offered to MM subscribers. f. All tenets of FCC policy will be followed. g. The network includes redundant diverse route fiber transport (St Croix-Miami/St Thomas-Miami) to the mainland for Public Internet and 3d Party Intl Carrier Access via leased OC12/STM4 level fiber connections from AT&T and Global Crossings providing a cum bandwidth of over 1.2 Gbps to the core VI network. A standards-based 10 Gbps protected Ethernet transport ring will be constructed on the
Islands with redundant diversely routed fiber. The 10 Gbps transport rings will be interconnected submarine fiber, constructed and initially provisioned at 10 GE bandwidth. Distribution of service form the core transport ring to all MM subscribers will be performed via combination of standards-based GPON and Active Ethernet technologies over fiber feeder+distribution cable constructed and served by Calix Multi Service Access Platforms (MSAPs) distributed through the Islands across a number of central office remote access cabinet facilities. A ~half mile microwave shot utilizing licensed 11 Ghz radio spectrum will provide a redundant ~1 GE of Ethernet bandwidth from St Thomas to Water Island where a remote access node will serve its small number of RES and BUS and CCFs. Direct MM subscribers served by this project include 53 CCFs, 881 BUS and 2 3d party LMP. Due to fiber design and bandwidth from the proposed network, all VI establishments are passed by the network; most if not all establishments can be served; all residential subscribers can be served indirectly through new/existing LMP. New submarine fiber between islands and the resulting abundance of commercially available bandwidth could unlock much more pent up demand from existing MM establishments than our current conservative forecast. This project creates 14 perm. direct jobs; 820 construction, manufacturing, service+other indirect jobs will be created during construction period of this ~43M project. Estimates are based on study finding 20 jobs are created for each $1M in investment in construction of a FTTP network. Eisenach, et al., Economic Effects of Tax Incentives for Broadband Infrastructure Deployment, pp. 8-9(1/09).