

Broadband USA Applications Database

Applicant Name: Surfnet Communications Inc.

Project Title: Central Coast Wireless Broadband Project

Project Type: Middle Mile

Executive Summary

a) The Opportunity- Surfnet is proposing critical Middle Mile and Last Mile wireless services to compliment fiber projects being proposed by the Central Coast Broadband Consortium (CCBC) and the City of Grover Beach to build a ubiquitous, high-performance wireless network serving five counties along California's Central Coast. The CCBC is an established, well-organized cooperative that has developed a broad base of institutional, municipal, and community support throughout the region. The three counties historically represented by the CCBC included Santa Cruz County (SCC), Monterey, and San Benito. The City of Grover Beach has developed and carefully planned a comprehensive Middle Mile fiber network strategy that is well suited to compliment our proposed last mile coverage. As a result Surfnet proposes to work with them to provide last mile wireless services for the City of Grover Beach as well as the wider community in southern San Luis Obispo (SLO) County in order to maximize the public benefits of their program. b) Proposed Service Area - The proposed service area is rural, with many underserved or unserved households, businesses, and anchor institutions. Surfnet's existing service areas are located at the extreme northern and southern counties, through which the proposed CCBC backbone fiber will run and in which Grover Beach is located. Surfnet is the largest (nearly exclusive) wireless provider in northern Santa Cruz County and southern parts of San Mateo. Recently, we consulted for, and later acquired a WISP which had an extensive network throughout San Luis Obispo County (SLO). Significant sections of the California Central Coast consist of rural/semirural communities, currently unserved or underserved by broadband Internet access due to topologically challenging terrain, as well as lower density residential, and thus limited commercial, service areas. The high cost of providing Middle Mile and Last Mile Access to these low density areas has made them unattractive to major cable, DSL and fiber providers. In an effort to fill a basic broadband need in these unserved/underserved locations, a number of small, low overhead, wireless Internet service providers (WISPs) have set up a patchwork of networks to meet the demand for broadband service. However, some of these small WISPs are struggling to survive, no less invest in expanding their networks, and so significant pockets of this region continue to have no broadband access or bandwidth performance too low to handle the growing/upcoming voice and data network demands by residents, businesses, government, and social service agencies. A great need and opportunity exists for a ubiquitous, seamless, high performance, broadband wireless voice and data network serving end users in five contiguous counties along the California Central Coast. The jobs provided to build out this opportunity would also be an economic asset to this magnificently beautiful and high potential growth area. c) Households/Businesses passed - Our proposal plan is designed to cost effectively provide wireless broadband access to 74,000 households and 2,000 businesses in our Santa Cruz and San Luis Obispo Last

Mile Funded Service Areas. Over 300,000 households and 10,000 businesses are passed by our Middle Mile projects. d) Number Community Anchor Institutions - Our funding proposal passes roughly 500 community anchor institutions in the proposed Last Mile coverage areas, some of which are also involved with education or other community service proposals. This is a partial list of institutions we are working with: Camp Hammer, CA PARKS/ Monterey Bay Aquarium, CDF, KUSC Public Radio, Santa Cruz Yacht Harbor, Monterey Yacht Harbor, Moss Landing Harbor, UCSC, UCMB, CCBC, City of Watsonville, Santa Cruz, Grover Beach and Morro Bay. e) Proposed Services & Applications – The main service we propose to provide is fixed wireless broadband. The WiMax radios we plan to deploy to cure our capacity and coverage problems and will also enable voice applications. We have been told that VoIP equipment is not an eligible expense and we plan to add VoIP services with an addition \$1.2M in investor funds (over and above the required 20%), as well as develop a line of VoIP Office Systems, and Single Priced Tech Services – A “Wireless C-Beyond.” f) Non-Discrimination and Interconnection Obligations - Surfnet, both in our company values and in all our professional dealings, fully adheres to the non-discrimination requirements as set forth in the NOFA. We prominently display our non-discrimination practices at our workplace and on our website, with notices to customers of changes in these policies. Surfnet also embraces network openness as part of our company network management philosophy, as well as part of our collaborative work with the Central Coast Broadband Coalition (CCBC) and Grover Beach Broadband Project. Specifically, we are dedicated to: 1) ensuring that our existing Santa Cruz County and San Luis Obispo customers, plus those we propose to add to our service will have ubiquitous broadband access at affordable prices , and 2) opening our wireless backhaul in the proposed service areas to other local ISPs who wish to take advantage of the network we build, at wholesale (or transport) pricing that allows for competition and synergy to exist. Our vision is to make seamless, ubiquitous high speed Internet access and interoperability between networks a reality for all residents, business, governments, educational and social service agencies. Currently the provision of broadband coverage in SLO is limited by a “rat’s nest” of interfering, sometimes redundant, sometimes necessary, coverage areas that we hope to help unify by providing transport and wholesale pricing to and with our competitors. We believe it can be a win-win for all concerned, especially the community. f) Network Type and Tech Standards – Our existing network uses industry standard 802.11b (Wi-Fi) radios in the 900MHz and 2.4GHz bands for Last Mile customer service. These are interconnected by a Middle Mile network primarily consisting of 5.8GHz 802.11a PtP radios and routers. We propose to augment our existing Last Mile service with WiMax radios capable of a much greater last mile throughput and NLOS coverage. For the Middle Mile, we also propose to augment or replace the 5.8GHz 802.11a PtP radios with licensed, 18GHz, 100Mbps commercial microwave links. The use of the 18 GHz licensed frequencies also frees-up the 5.8GHz band for Last Mile commercial use by public institutions and large commercial customers. The result will be a network with greatly improved capacity and coverage (not to mention reliability and latency). h) Qualifications of Applicant - Surfnet Communications has 6 years experience in successfully deploying and operating large area wireless networks serving rural residential customers. We have a stable, highly seasoned management and operations team with reliable contractor and supplier partnerships that add to our success factors for taking on the proposed infrastructure and operating it sustainably. Our strategic market niche has always been providing wireless broadband service to “unserved, topologically challenging, seaside and mountain communities”, where we have earned a loyal reputation for service and support. We have become the largest wireless broadband

provider in north Santa Cruz County and perhaps in SLO. During the last four of six years, we have been profitable, thanks to our cost-effective approach to developing and maintaining our network. We have internally funded our own growth (~\$100K/yr). We know exactly where we need additional antennas to fix holes in our coverage and exactly what customers and institutions in our community are requesting service because we have a 6-year-old database of requests. For the last year, we have been looking for additional funding to expand our service area and strengthen our service offerings and capacity to include anticipated higher bandwidth requirements, along with WiMax, VoIP and VoIP Office Systems. g) Overall Infrastructure Costs – The overall costs of deploying the proposed network infrastructure is estimated at \$3.8M. That works out to be \$51/household within our Last Mile Service Areas. Our combination of wireless and fiber will produce an excellent broadband infrastructure for these regions and a very reasonable cost. h) Overall Subscriber Projections – Surfnet expects that over the next five years the deployment of our proposed network project will serve a minimum of 2533 subscribers (2.5X our current size). With the addition of VoIP services and realization of ubiquitous coverage, we believe that our new customer count could reach 6261(6X our current size). k) Number of Jobs- We believe that we will create 15 new jobs. Of these, 11 are proposed as part of the CAPEX required for this project. Many of these jobs are expected to persist after the completion of the project, and have been included in the OPEX projections for Years 3-5. The jobs listed below are also included and designated on our Organization Chart. Accountant 1 SLO Regional ARRA Manager 1 Site Acquisition and Permits 2 Engineering 2 Compliance & Billing 1 Construction 2 CRM and Customer Services 2 Installation 4 We also believe that by cooperating with other local WISPs, we will ultimately be improving everyone's services and saving jobs throughout the industry. We are "shovel-ready" and we are prepared to generate 15 new jobs on the proposed Central Coast Wireless Broadband Project for already identified individuals, partners and consultants.