Broadband USA Applications Database

Applicant Name: XO COMMUNICATIONS SERVICES, INC.

Project Title: Northern Lights: Building Broadband Communities

Project Type: Comprehensive Community Infrastructure

_______________________ Executive Summary ____________________________

Northern Lights: Building Broadband Communities ' Executive Summary The Northern Lights: Building Broadband Communities, a Comprehensive Community Infrastructure (‘CCI’) project, will satisfy the overwhelming need for high speed broadband infrastructure across the northern tier of the United States. The Northern Lights project will pass through 37 Congressional Districts and by 8,666,346 households and 582,364 businesses, approximately 36% of which are in underserved areas. In addition, 6,455 Community Anchor Institutions (‘CAIs’) and critical community organizations (‘CCOs’) are passed; this includes 586 libraries, 715 fire departments, 303 government offices, 523 law enforcement agencies, 223 health care facilities and 4,105 educational institutions. XO Communications Services, Inc. (‘XO’) surveyed the many communities in this area and determined there is a significant lack of broadband capacity necessary to support the exponential growth of high bandwidth broadband services. CCOs and anchor institutions that are part of the fabric and support services of these communities can only thrive with broadband capacity and access to the internet that is equivalent to that available in major metropolitan areas. As Commissioner Michael J. Copps stated 'high value broadband is the Great Enabler of our time.' XO understands that the health of any community is directly linked to its ability to access and deliver information which is best enabled through broadband connectivity. To satisfy this need, XO is proposing to construct a CCI project meeting the broadband needs of the entire proposed service area for decades to come. Northern Lights will be a 2,227 mile, 144 fiber cable route serving the states of Washington, Idaho, Montana, North Dakota, Minnesota, Wisconsin, Illinois and Iowa. It will provide affordable, carrier grade broadband services to CAIs, CCOs, local governments and public safety entities as well as wired and wireless last mile broadband providers that cover hundreds of communities throughout the proposed service area. The project is designed to provide local communities with numerous access alternatives that do not and will not exist without Northern Lights. Access to Northern Lights will be provided through 46 network access points each of which will have a wireless tower that will extend access deeper into the community and at numerous other passive points along the network. Total project cost for the Northern Lights is $294,949,707, of which XO commits to fund 30% or $88,484,912. XO is requesting that $206,464,795 be funded through the Broadband Technologies Opportunities Program (‘BTOP’). Due to the overwhelming needs of the hundreds of communities and the fact that the project covers ‘ and needs to cover -- eight states to connect tier 1 internet access nodes -- this request should not be viewed as outside the recommended funding range. A project of this nature and size, passing through large swaths of rural communities, will never be built without government support as it will not meet the requirements of a standard business case. XO, which is an expert at building large scale fiber projects, is uniquely positioned to make this
XO has provided information regarding the Northern Lights project to over 6,000 CAIs, local governments, Tribal organizations, public safety entities, economic development directors, and other CCOs along the route. With each contact, it became increasingly clear that high speed broadband service is limited in the Northern Lights states, and future growth cannot be accommodated because of extremely limited broadband transport availability, particularly to the major IP nodes. To the extent any broadband transport services are available in the Northern Lights rural communities, such services are excessively priced, unavailable or provided over antiquated facilities. Due to these problems, the project will meet the needs of a variety of non-profit, public, private and governmental entities along the proposed route. For instance, XO is partnering with the Coeur d’Alene Tribe, a Round 1 BIP grant recipient. The tribe will build a fiber-to-the-home network on the reservation, which will connect 3,500 homes, 21 CAIs, public safety entities, and CCOs in rural North Idaho, and their network will utilize Northern Lights for transport services. In addition, the Ramsey Broadband Coalition indicates that the project will meet its current and future broadband needs, as well as those of other CAIs in Ramsey County and the cities of St. Paul and New Brighton, Minnesota. Moreover, the Coalition indicates that the project will, in conjunction with other services, enable classrooms to connect at high speed to broadband capable of supporting online learning and remote tutoring. Similarly, the City of Eagan, Minnesota has recognized the project provides both broadband services to rural communities and much needed security and redundancy to major broadband pathways. The Northern Lights route is specifically designed to provide a highly diverse route ensuring uninterrupted service and avoiding single points of failure to protect those communities in the event of disaster or attack. The Northern Lights fiber-optic transport network and associated IP/MPLS infrastructure will be the foundation for the provision of an unprecedented amount of advanced IP-based services to CAIs, CCOs, and largely underserved rural regions along the route. Existing providers along Northern Lights will be able to use their own networks to provide last mile connectivity into communities from points of interconnection on the Northern Lights network. XO High Speed IP Transit will be available to carriers and service providers along the route who need fast, reliable Internet backbone access at a reasonable price and without the cost of building and managing a tier 1 network. XO will offer many bandwidth and billing options along with XO’s robust peering arrangements. At the outset, XO plans to offer Ethernet, private line and dark fiber as well as collocation services. In developing pricing for services, XO spoke to numerous CCOs and others to determine the competitive landscape and how XO could address their needs. As an example, the Salish-Kootenai Tribe in Montana currently pays between $200/MB and $400/MB (and higher) for broadband internet access -- approximately 20 to 40 times higher than the pricing XO will offer in 2013 when the project is completed. Even at the current exorbitant prices, supply is limited, and broadband usage by the citizens and businesses of the reservation must be constantly ‘throttled back.’ This is a particular problem for the Salish-Kootenai College, which controls and operates a wireless broadband network for local usage. Northern Lights will provide Salish-Kootenai (and all of the 7 Montana tribes) with a complete suite of broadband internet access options at less than $10/MB at network access points with the proposed tribal network in Missoula, Glendive, and Billings, Montana. As a current operator of a national fiber network, XO already has non-discriminatory network policies and interconnection practices. Accordingly, XO will employ in the Northern Lights project practices that are fully consistent with the non-discrimination and interconnection requirements of the BTOP as set forth in the second round Notice of Funds Availability. Opportunities like Northern Lights come once in a lifetime. Through
an award for this project, NTIA has the ability to fundamentally change the broadband landscape for a
great many citizens in hundreds of communities in these underserved eight states in the northern US.