Broadband USA Applications Database

Applicant Name: VERMONT ELECTRIC COOPERATIVE, INC.

Project Title: N-L Northern Connector

Project Type: Comprehensive Community Infrastructure

Executive Summary

The N-L Northern Connector proposes to provide broadband services over a fiber optic network in the proposed service area, a rural area where broadband services are very limited. Most communities in Northern Vermont have limited or no terrestrial broadband, where service is provided there is significantly less than 5 mbps available. The proposed project will provide the ability to connect One Hundred-Fifty-Four (154) critical community institutions to the Internet at speeds of 20Mbps and higher and allow them to participate in Wide Area Networks (WANs) in VT, NH, ME and NY. The N-L Northern Connector will provide broadband services to Vermont Electric Coop to support their Smart Grid infrastructure, provide Middle Mile services to Last Mile service providers and broadband and WAN services to critical community institutions such as community college campuses, k-12 schools, hospitals, public safety entities, Vermont Agency Of Transportation garages and town halls throughout the proposed service area. TelJet Longhaul, LLC and Vermont Electric Cooperative have partnered to connect the existing North-Link fiber network, owned by VEC, to TelJet's existing fiber network as well as three fiber projects, either funded in Round 1 or requesting funding in Round 2, for the purpose of providing critical community institutions in northern Vermont communities with reliable, high-speed broadband services. TelJet will provide critical community institutions with direct fiber connections to the proposed project. TelJet Longhaul, LLC is a Vermont-based company, established in 2002. TelJet currently provides Internet and WAN services to a high percentage of hospitals, libraries, schools, universities and colleges in Vermont and New Hampshire through its own fiber network. TelJet Longhaul, LLC has extensive experience in constructing fiber networks and providing services to critical community institutions in rural communities for the last eight years. In 2007, North-Link, an open access dark fiber network, funded by the U.S. Dept. of Commerce Economic Development Administration (EDA), constructed 53 miles of fiber network, from Beecher Falls, Vermont (Vermont's most Northeastern community bordering New Hampshire) to Troy, Vermont. North-Link, an open access network, provides services to carriers and Internet Service Providers (ISP) on a nondiscriminatory basis. Currently Vermont Electric Cooperative is extending the network with additional grant funding provided by the U.S. Dept. of Commerce Economic Development Administration (EDA) funding. The need for improved telecommunications service in the northern portion of Vermont is well documented. The incumbent telephone company in the State, Fairpoint Communications, is currently in bankruptcy and cannot provide the necessary funding to upgrade the facilities in the region. The proposed project is crucial to monitoring the US/Canadian border. Vermont's First Responders and Public Safety Units (VCOMM) have expressed a demand for reliable broadband services in northern Vermont. There are many unmanned border crossings in this area, all of which are critical to commerce and securing this
remote section of the US Border. The towns of Canaan, Averill and Norton are currently served from a single delivery point; this source is very unreliable and as the only source with limited redundancy outages in these areas are frequent. In 2008 the businesses in Norton experienced an average of 9 outages per household and the Canaan businesses experienced more than 6 outages per household, which exceeds the Vermont public service area allowable outages by more than double. Additionally, the proposed project will support travel advisory service for travelers along these routes and will support the Vermont Agency of Transportation in managing road conditions through the rural weather service. The Agency Of Transportation will be able to provide greater cost controls on materials and delegate agency personnel due to remote/automated management processes and increased communication of the area. The N-L Northern Connector supports all aspects of Smart Grid such as; automatic meter reading, two way communications with all homes and businesses served by the electric utility, remote control of all grid components and real time communications with stations and end users. The N-L Northern Connector will provide end users in Northern Vermont the opportunity to utilize VEC smart grid technology. These applications provide energy consumers the ability to manage electrical consumption. The N-L Northern Connector project provides the opportunity to support Smart Grid components at the proposed newly upgraded substations. Smart Grid provides not only the utility with real time electrical system data that allows the utility engineering planners, power purchasers and system operators to efficiently operate the electric grid within their control, but also sets the foundation for revolutionizing the way that consumers use electricity. The end goal of Smart Grid is real time automatic meter reading, use of interval data storage, consumer self analysis of power consumption and two way communication with homes and businesses. With these tools available, consumers will soon be able to purchase their power through ‘real time price’ programs, in which consumers can monitor their power usage, market price and make energy use decisions that will ultimately benefit all rate payers by reducing peak demand and deferring expensive generation projects. It is the goal of all utilities to reduce consumer demands during peak periods so that the power grids are better utilized and built to meet a more constant demand. All construction will be done on existing VEC rights of way (electric transmission poles and the Vermont Agency of Transportation's Lamoille Valley Rail Trail). Feasibility Analysis: The N-L Northern Connector is part of a plan to establish reliable, scalable, redundant broadband service throughout the most rural portions of the States of New York, Vermont, New Hampshire and Maine. The Vermont Department of Public Service supports the proposed project and there are no anticipated delays. All permits are either in hand or will be in hand by September 1, 2010. The proposed project will be completed and operational within twenty-four months of award.