

Vermont Telephone Company, Inc., (VTel), proposes a GigE fiber network, delivering billion bits-per-second of broadband to every home and office in VTel's telephone territory, and a 700MHz wireless network using VTel's existing FCC licenses to deliver broadband to every unserved home and office in southern Vermont.

Opportunity of the Proposed System: VTel seeks to leverage the stimulus funding, and VTel's resources of massive redundant Internet bandwidth and Vermont wireless licenses to immediately transform Vermont into a global leader of broadband innovation. VTel, has invested over \$100 million in its network over 15 years, while answering over 500,000 customer calls – on the first ring – and making over 100,000 customer house-calls with excellent customer service. We built a 1,000 mile optical fiber ring connecting rural VT to the largest telecom hubs in New York and Boston, bringing massive redundant broadband into VT, and today serving Dartmouth, McGill, MIT and others. We have acquired 700MHz, BRS (WiMax), AWS, and PCS wireless FCC licenses covering most or all of Vermont. Without stimulus dollars, these benefits might be only gradually, incrementally delivered, over 10 or more years. With stimulus dollars, these benefits can begin immediately.

Description of Proposed Service Area: VTel proposes one funded service area, comprising 74 towns or “census communities” across the southern half of Vermont. This covers 33,858 households, including 5,037 businesses and 274 critical community organizations over 2,244 square miles territory, equivalent to 25% of the state's geography. Our proposed 700 MHz wireless will deliver cost-effective broadband to 16,577 households in rural Vermont, while fiber will deliver superior GigE broadband to all 17,281 VTel households within VTel's 14 existing exchanges.

Community Anchor Institutions: VTel was first in Vermont to develop a VTel/Department of Education Public/Private fiber network to the largest high schools in Vermont. VTel extended its network to the four most prominent health care facilities in our region, comprised by Springfield Hospital, Dartmouth Hitchcock Medical Center, Dartmouth Medical School, and the VA Medical Center. Still, there remain hundreds of community organizations deeply in need of fiber and wireless broadband. We provide support letters from Vermont's Office of Economic Stimulus and Recovery, Dept. of Education, Office of Vermont Health Access, and the New England Tele-Health Consortium. We have worked closely for years, with Springfield Hospital and Edgar May Health and Recreation Center, the two largest non-profits in southern Vermont, and we provide their support letters. We are closely associated with the Springfield Regional Development Center, as we share their goals for creating jobs, and include their support letter. The Howard Dean Education Center and the River Valley Technical Center are tremendously important educational centers in our region, and have provided support letters. We support the Springfield Area Parent Child Center which assists children in need, and we are sensitive to the vital works of Greenwood School and Landmark College, supporting young people with special needs, and we provide their support letters. Vermont's government in prior years awarded \$50,000 broadband grants, and we include a letter from Bennington County Regional Commission, highlighting that they would seek to use their remaining grant to assist us.

Non-discrimination/Interconnection: VTel's proposal adheres to the principles contained in the FCC's Broadband Policy Statement (FCC 05-151 adopted Aug. 5, 2005), and meets the RUS and

NTIA requirements for non-discrimination and network interconnection obligations as specifically outlined and confirmed within VTel's application response to Q22 - Description of Network Openness.

Broadband System: VTel proposes active fiber with GigE (1,000Mbps) broadband to every VTel home, using technology manufactured by Calix, of Petaluma, CA. Calix is a U.S. market leader for rural broadband access, and we have worked closely with them for many years, widely deploying Calix technology throughout our network. GigE is our minimum, not our maximum. The fiber network design allows a simple upgrade path to 10Gig (10,000Mbps) per home or office, and because 10Gig equipment is readily available today, we can plan to implement upgrades immediately. In addition to unmatched broadband speed, the GigE fiber system design incorporates (1) ease of upgrade, (2) increased reliability, (3) capacity to support any broadband service in existence today, (4) consistent capacity at almost any distance, (5) lack of interference from RF sources, and (6) lower operating costs. Wireless technology will be based on the 4G Long Term Evolution (LTE) standard, utilizing 700MHz, and our preferred vendor is Motorola. Verizon Wireless, on August 17, 2009, announced a successful trial of similar LTE 700MHz wireless technology by Nokia and Starent, in Boston. VTel owns 12 MHz of prime, ubiquitous 700MHz C-Block spectrum covering Vermont, as well as the adjacent areas of Glens Falls and Albany, NY, enabling clear and strong signals along Vermont's mountainous western border and across the state. 700MHz spectrum enables superior services and deployment over other wireless spectrum because it (1) travels 2-3 times further than conventional PCS, (2) has better propagation through buildings, trees, and geographic clutter, (3) requires significantly fewer tower sites to cover a geographic area, reducing network deployment costs in mountainous topology, and (4) is primed for LTE which, as a global standard, will push consumer technology costs to decline rapidly.

Qualifications: VTel and its predecessors in Springfield have served Vermonters for 110 years. VTel was first in Vermont to introduce Internet service (1995), first with DSL (1999), first with GigE (2001), first with ADSL (2002), first with DWDM, (2005), and first – in FCC Auction 49 – to buy Vermont 700MHz spectrum. The VTel team is well equipped to take on a fiber and wireless project of this scale, having worked together over 10-15 years on numerous broadband infrastructure projects. Notable is the \$12.5 million, 1,000 mile, VTel fiber ring which connects Springfield, VT, to One Summer Street, Boston, to 60 Hudson Street, New York, and to 360 Rue Rene Levesque, Montreal. The network has proven more reliable than Vermont fiber networks of Level 3, or MCI, and, as a result, VTel was selected in 2009 by Vermont's Department of Information and Innovation to become the state's principal Internet provider. VTel's substantial contractors and business partners have provided letters expressing readiness to have work crews on site within days of a grant.

Infrastructure Cost: The project is expected to cost a total of \$70,826,764, with 33% to be immediately used to begin infrastructure build-out, 62% deployed by end of Year 2, and buildout completed by Year 3. VTel and its parent Vermont National Telephone Co., Inc. typically have \$[XXXXXXXXXXXX REDACTED] of cash on hand, today have unused lines of credit of \$[XXXXXXXXXXXX REDACTED], and have provided a Rural Telephone Finance Cooperative letter expressing interest in loaning a further \$[XXXXXXXXXXXX REDACTED]. We have a \$[XXXXXXXXXXXX REDACTED] in-kind contribution in the form of 60 miles of optical fiber in

our warehouse, and a recent independent valuation indicates our wireless licenses are today worth in excess of \$[XXXXXXXXXXXX REDACTED].

Subscriber Projections: VTel plans, at its own cost outside this proposal, to hire 4 full-time Broadband Outreach personnel and to equip at least one VTel Broadband Van with 700MHz and WiMax technology as well as HDTV videoconference technology, to implement a model formerly known as the Rural Radio Farm. This model was first used in rural North America in the 1940's to help families recover from the Great Depression. The model has been replicated, frequently and successfully, around the world. VTel's plan is to recreate this format as Rural Broadband Farm Forums, hiring outreach personnel to organize hundreds of face-to-face meetings with small groups of five and six people each, to inform and instruct people on how broadband can be used to make lives in our region better. We project 30% penetration for wireless broadband in unserved southern Vermont territories, and an extraordinarily high 80% for our GigE over fiber in existing VTel territories. We believe the unique combination of (1) extraordinary unmatched GigE broadband at conventional DSL pricing, (2) reduced broadband prices for Vermont families receiving Lifeline telephone service subsidies, (3) Rural Broadband Farm Forums, (4) excellent customer service, and (5) availability of 700MHz and WiMax broadband to augment fiber, can make southern Vermont one of the highest broadband penetration communities in the world. VTel is already well-known throughout the extended region, in part because our Southern Vermont Phone Directory has been delivered to each of 110,000 southern Vermont households for more than 10 years.

Jobs: We expect a \$70 million project of this kind to directly support 400 full-time jobs at an average fully-loaded cost of \$85,000/year/person. We expect at least 60 full-time immediate jobs in our region, directly associated with construction, design, purchasing, and follow-up. We also believe the implementation of this extraordinary rural Vermont fiber/wireless broadband network will serve as a 'tipping point' catalyst, causing existing employers in southern Vermont to renew their commitments to stay in Vermont, and attracting new employers. Hardworking educated Vermonters, hundreds of Megawatts of hydro-electric power from dams along the Connecticut River, and a world-class fiber/wireless broadband network delivering massive data speeds, is a combination that will generate thousands of rural Vermont jobs and dramatically stimulate the economy of the area.