



Vermont Telecommunications Authority

Fiscal Year 2014 First Quarter Report

Vermont Telecommunications Authority
100 State Street
Suite 342
Montpelier, VT 05620-3205
www.telecomVT.org

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Vermont Telecommunications Authority

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Introduction

This document provides reports on the activities, plans, and financials of the Vermont Telecommunications Authority (VTA) for the first quarter of fiscal year 2014 (third quarter of calendar year 2013 ending September 30th). As required by 30 VSA § 8071, the Quarterly Report details the overall activities and accomplishments of the VTA during the previous quarter. This document is organized into sections, each one describing the information called for by each of the subsections of Section 8071.

Quarterly Report

A description of all authority activities to develop or facilitate development of telecommunications infrastructure that furthers the objective of chapter 91 of Title 30

The current VTA efforts to develop or facilitate development of telecommunications infrastructure fall into four broad categories, each of which has seen significant activity in fiscal year 2014 [FY 2014]. The VTA makes grants to retail service providers of broadband or cellular service. In FY 2014, the VTA has awarded six new grant-funded projects, and currently continues to oversee five previously funded grant projects still in process during FY 2014. The VTA directly develops and manages fiber optic infrastructure projects. Fiber optic infrastructure that reaches more deeply into communities is one of the key building blocks for support of both broadband and cellular service expansion. Direct development of fiber optic infrastructure by the VTA increased considerably in FY 2013, with construction continuing on two projects and development of a new fiber optic network in the Northeast Kingdom begun. This development continues in FY 2014. The VTA engages in wireless tower development and wireless site management, providing a key piece of infrastructure for cellular service and wireless broadband. Finally, the VTA has entered into a wireless equipment leasing agreement. This agreement assists a wireless company in acquiring new equipment which they deploy to expand service to Vermonters. The VTA has deployed combinations of these four types of tools in a variety of projects that have helped or will help unserved and underserved Vermonters.

In its efforts to expand cellular service, the VTA has concentrated on a statewide map of cellular “Target Corridors” and “Drop Zones” that is the prime focus of VTA activities related to cellular service expansion through the end of 2014.¹ The Authority has funded a project to expand rural roaming coverage with CoverageCo described herein, and a project to support the introduction of coverage from a new carrier to Vermont, VTel Wireless. The VTA has continued to seek agreements with cellular carriers to expand coverage through tower development projects. VTA’s Bethel Tower, completed last year, continues to host AT&T’s provision of cellular service. The VTA contracted in August 2013 with American Tower Company for development of up to eight cellular towers along Route 9 between Brattleboro and Bennington.

A summary of activities newly funded by the VTA or previously funded by the VTA and still in process is provided below with the approximate amount of the grant or project cost in parentheses, where applicable.

¹ See http://www.telecomvt.org/sites/www.telecomvt.org/files/file/RFP's/Cellular_Target_Corridors_9_07_11.pdf.

Last-Mile Broadband Grants

- The EC Fiber Thetford & Norwich project extending fiber-to-the-home to 17 locations is in construction. The targeted completion date is the second quarter of FY 2014. (\$167,569)
- The FairPoint Bradford & Rupert project will extend DSL to 44 unserved locations. Construction is complete and notifications pending.. (\$182,000)
- The Topsham Communications Topsham-Bradford project, providing fiber to the home to 138 locations in Groton, northeast Topsham and north Bradford. Construction has begun in Groton, make ready has been delayed in Bradford. VTA staff is making site visits and keeping in close touch about progress. (\$378,200)
- A Comcast cable line extension project is designed to provide cable broadband to 56 unserved locations in Braintree, Shaftsbury and Pownal. The Braintree locations are complete. The Shaftsbury/Pownal areas are in the construction stage. Estimated completion is the second quarter of FY2014. (\$247,256)
- A FairPoint Communications DSL project providing broadband Internet service to 44 unserved locations in Barnet, Rochester, and Ryegate is completed. (\$330,200)
- A Comcast project will serve 13 locations along all or portions of three roads in Chittenden. Contract negotiations are in process. Estimated completion date is September 30, 2014. (\$89,303)
- A FairPoint project will expand DSL to 44 unserved locations in Bennington, Brattleboro and Wilmington. Engineering and design is in progress. The estimated completion date is June 30, 2014. (\$295,750)
- A Southern Vermont Cable project will extend cable line to seven unserved locations in Newfane and Putney. Make ready is complete and materials have been ordered. Estimated completion date is the first quarter of calendar year 2014. (\$135,804)
- An ECFiber project will bring service to two locations in Randolph. Contract has been signed. First report is due in November and estimated completion date is the first quarter of calendar year 2014. (\$38,574)
- A Consumer Financial Assistance Program for cable line extensions in unserved target grant areas has been initiated. This leverages state cable regulations that a cable company must extend lines to customers who request it with a cost-sharing program. The VTA will subsidize the customer cost-share up to a maximum of \$6,000 per address. Outreach materials are being prepared and will be sent to the first 20 potential participants in early November. (\$973,606)

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- A new incentive demonstration project for a group of the most difficult to serve target grant areas will be available through the National Rural Telecommunications Cooperative. The VTA will offer payments to cover all but \$100 of the installation fee of the next generation Exede satellite service. Surveys will be gathered to determine the satisfaction rate of the service. Estimated completion date is the first quarter of calendar year 2014. (\$28,790)

Middle-Mile Broadband Grants

- The Vermont FiberConnect project, an 800-mile fiber-optic middle mile network in southern, central, and northeastern Vermont funded through the U.S. Department of Commerce National Telecommunications & Information Administration's Broadband Technology Opportunities Program [NTIA BTOP], has deployed all but 43 miles of fiber as of September 30, 2013. 274 Community Anchor Institutions are service-ready. An extension for completion has been granted by the NTIA and the new date is December 31, 2013. As the NTIA BTOP grant recipient, the VTA has contracted with two sub-recipients: Sovernet Fiber Corp. is developing the network and will own and operate it (\$35,491,164 contract), except for a segment in eastern Essex County to be operated by New Hampshire Optical Systems (NHOS). The NHOS segment has been completed and close-out paperwork begun. (NHOS contract \$300,000). (\$36,152,681 project total)

Fiber Development Projects

- The Hardwick-Newport Fiber Project, authorized by the Vermont Legislature through Act 53, is under construction to create a 41-mile fiber optic route through six towns. Construction is complete from Newport to Hardwick. There was a delay in hanging the last five miles of fiber, but a solution is anticipated in October. Completion of this open-access facility is expected in the the last quarter of calendar year 2013. (\$930,680)
- Orange County Fiber Connector, a 36-mile fiber optic line serving six towns is under construction. Thirty-two miles of fiber have been hung, the first seven-mile section has been successfully tested, and two service providers are serving customers off of that section. A delay in make ready on the last four miles has recently been resolved. Completion of this open access facility is anticipated in the fourth quarter of calendar year 2013. (\$930,000)
- The Barton Fiber Project, as directed by the FY 2010 Capital Bill, will provide 5.5 miles of fiber optic cable in the town of Barton. Pole make-ready work is complete, a work plan has been established with Orleans Electric, but the project is on hold pending revision of the grant agreement. (\$297,363)
- In the first quarter of FY2013, the VTA received the Northern Borders Regional Commission's [NBRC] approval to take over the development of a grant-funded fiber optic project originally conceived of and secured by the bi-state Northern Community Investment Corporation. [NCIC]² Estimated completion is the end of the first quarter of calendar year 2014.
- The Northeast Kingdom [NEK] Fiber Network is a cooperative effort involving the VTA and a number of utility and economic development organizations that have constructed, or are planning to construct, fiber facilities in the Northeast Kingdom. The VTA has signed cooperative agreements with these organizations to establish common management, marketing, and terms for dark fiber access. Contracts include a management and marketing contract with Northern Enterprises, the developer and owner of the North-Link fiber optic facility, an approximately 55-mile fiber facility in Essex and Orleans counties. Much of the NEK Fiber Network has an estimated completion date of the end of the first quarter of calendar year 2014. Other segments are estimated to be completed by the end of calendar year 2014.

² The VTA intends to closely coordinate with NCIC.

Cellular Projects

- The Vanu CoverageCo Small Cell Initial Deployment creating a wholesale carrier cellular network in Orange and Lamoille Counties serving multiple carriers and standards is in deployment. The network has been opened to commercial traffic in several corridors. Contract amendments are in progress for changes in target corridors to be served, and the project is expected to be completed in the third quarter of FY2014. (\$552,000)
- The Bethel Tower Project is part of statewide initiative to identify, acquire, permit and construct new tower infrastructure for cellular providers in unserved areas. AT&T has signed a lease for the Bethel tower. The VTA completed tower construction on schedule in December, 2012 and placed the tower in service with the VTA managing the tower operation. AT&T has been making monthly lease payments since July 2012, and went on the air in the fourth quarter of FY 2013. (\$235,480)
- The VTA has awarded \$2,644,093 to VTel Wireless of Springfield, Vermont, to purchase radio equipment to add cellular voice capability to its \$116 million stimulus-funded Wireless Open World (WOW) 4G/LTE broadband network across Vermont. Equipment has been purchased, installed and integration is ongoing.
- In the fourth quarter of FY2013 the VTA received an award from the U.S. Economic Development Administration [EDA] Disaster Recovery Grant in the amount of \$1,601,800 with a VTA match of \$400,450. The project will focus on areas hardest hit by Tropical Storm Irene and the May 2011 floods: Northeast Kingdom (Essex County), East Central Vermont (Windsor County and parts of Washington, Addison and Orange Counties) and Windham County. The project will address the lack of resiliency in cellular infrastructure revealed in the 2011 disasters and also address the long-term economic need for extended coverage and greater resiliency in these areas. Corridors were selected based on the damage impact from the storm, lack of cellular communication infrastructure, and documented gaps in radio coverage from the Agency of Transportation and the Department of Public Safety. The project scope is approximately 260 road miles. RFPs have been posted.
- In August, 2013 the VTA entered a cellular tower development agreement with American Tower Company to construct up to eight cell towers along Route 9 between Bennington and Brattleboro to provide service to underserved or unserved target corridors and drop zones. (\$640,000)

Other Projects

- The VTA continues to support the Agency of Administration by processing applications from wireless service providers to license the use of state properties for wireless communications facilities.
- The VTA provided a lease of wireless broadband equipment used by North Cloud, a joint venture of Wireless Internet Service Providers Cloud Alliance and North Branch Networks. The equipment was used to provide wireless educational broadband service to four schools locations in Grand Isle, Addison, Caledonia, Orange, and Orleans Counties. This action allowed North Cloud to satisfy FCC license requirements on wireless spectrum licensed to Vermont higher educational institutions which can also be used to provide last-mile broadband services to homes and businesses in Northern Vermont (\$25,795).
- The Business Broadband Improvement District initiative was launched to solicit applications to identify areas within municipalities that include businesses that need improved broadband services. Fifteen applications were received. The VTA will analyze them and make recommendations to the Agency of Administration in October, 2013. The Agency of Administration will determine which applications will be approved as “Districts.” The VTA will then work with designated Districts to determine options for improving broadband capacity available in them. Grants to ISPs may be part of identified solutions.

Outreach and Identifying Telecommunications Needs Through and Post 2013

Funded by a federal grant funded through the U.S. Department of Commerce, the VTA has provided assistance to the Vermont Broadband Mapping Initiative (BMI) on verifying broadband unserved locations.³ Validating service information and the locations included in projects which have been funded but have not been completed is increasingly important as the VTA seeks to target the last remaining unserved addresses. This activity continued in early 2013 with a direct mailing to nearly 500 addresses identified as potentially unserved but not associated with broadband projects in process.

While the VTA is focused on developing and funding projects which can meet the state’s goals for cellular and broadband service by the end of 2013, it also took time in 2012 to begin conversations about the ongoing telecommunications needs of the state beyond

³ The VTA is a subrecipient to the Vermont Center for Geographic Information [VCGI] on a grant from the U.S. Department of Commerce’s State Broadband Data and Development Program [SBDD]. VCGI is the lead entity of the Vermont Broadband Mapping Initiative, which also includes the Vermont Department of Public Service and the Center for Rural Studies at the University of Vermont.

2013. In doing so, the VTA consulted with a wide range of broadband and cellular service providers, Vermont-based industry experts not affiliated with any service providers, a range of cellular and broadband users, and telecommunications regulators. The VTA also examined developments and trends in technology and the business, and took stock of the progress that it and other organizations were making toward achieving the state's cellular and broadband goals. Several key themes emerged from this work:

- The state is making excellent progress toward statewide “basic” broadband service (assuming funded projects are completed in a timely manner). However, the global trend for broadband and mobile data broadband speeds, and the consumer's demand and expectations for it, continue to rise as they have steadily done in recent memory. While many Vermonters are likely to see steady increases in broadband speeds in the future, this progress is likely not to be uniform across the state.
- Despite significant industry headwinds against expansion of cellular service in rural markets (see the business plan section below) and far less available public funding than has been available for broadband, progress is being made in the expansion of cellular service. However, funds allocated to date for cellular infrastructure are likely to be exhausted before cellular expansion is complete in all target corridors and drop zones identified by the VTA. Even while mobile data service and upgrades to “fourth generation” or “4G” service is becoming a more important part of the cellular industry, basic voice is still lacking in many parts of rural Vermont and should remain a prime objective.
- Telecommunications infrastructure investment is an exercise in continuous improvement. Many areas with adequate infrastructure and services today will, in a few years, likely find that same infrastructure to be inadequate. Recent and traditional methods of ensuring adequate funding for telecommunications infrastructure investment, which have included monopoly service territories, regulated rates averaged across rural and urban areas, and other direct and indirect subsidy programs are going, gone, or under pressure. How to pay for continued investment across the state will be an important policy discussion for Vermont in the coming months and years.

A current business plan for the authority, including an explanation of significant changes subsequent to the most recent previous report

The Vermont Telecommunications Authority was created in 2007 to expand broadband and cellular (mobile wireless) service to the unserved areas of Vermont. The current Vermont goal, as established by Act 53 of the 2011 legislative session, is to have statewide availability of both broadband and cellular telecommunication services

throughout the state by the end of 2013. The VTA frequently tries to focus on projects that support multiple objectives (i.e., both broadband and cellular), so many of the VTA's projects are interrelated. The VTA is not a retail service provider, and works by helping to finance and develop the infrastructure needed by the retail providers of "last-mile" broadband and cellular services.

To that end, the Vermont Legislature appropriated \$10,000,000 of capital funding for fiscal years 2012 and 2013 to help achieve both goals of statewide broadband and cellular access. This is in addition to approximately \$1.1 million remaining from the VTA's fiscal year 2011 capital appropriation (all allocated to projects in process). Furthermore, the VTA is authorized to issue revenue bonds, backed by the moral obligation of the state, up to \$40,000,000. These funds are intended to develop infrastructure to meet the broadband and cellular needs of unserved and underserved Vermonters. The legislative appropriation specifies that the 2012-2013 capital appropriation funding may be granted to retail service providers.

In addition to grants, the Vermont legislature also authorized the VTA to build infrastructure to support the expansion of broadband, such as towers for use by wireless broadband providers or fiber optic cables capable of directly connecting subscriber locations ("last-mile" facilities) as well as connecting local broadband and cellular network facilities to regional hubs ("middle-mile" facilities). Prior to the construction or installation of VTA-owned fiber or the awarding of grants, the VTA is directed to request public comment; this process has been completed. The VTA has used the comments provided to inform its strategy for asset development and/or grant offerings. The VTA's business planning relates primarily to direct investment in infrastructure, as opposed to grant-making activity.

Three types of VTA-owned assets have the potential to generate revenue for the organization: tower infrastructure, fiber optic infrastructure, and broadband or cellular equipment. In each case, the revenue derived would likely be in the form of leases for use of the facilities or similar arrangements. Beyond VTA-owned assets, a modest amount of potential revenue may be derived from the management of state facilities for use in providing wireless communications service, although such revenue streams have not to date been dedicated by the state to the use of the VTA. Although the VTA is authorized to develop and own infrastructure, and may do so as part of an effort to catalyze the creation of infrastructure, it does not provide retail services over that infrastructure, nor does it seek to permanently own or manage the infrastructure it develops. Instead, when developing or owning infrastructure, it seeks to provide access to that infrastructure to broadband and mobile service providers who will use it.

Tower Infrastructure

Tower infrastructure is the support structure on which wireless voice and broadband service providers locate their antennas and associated base station equipment. The VTA recognizes that wireless development will involve both construction of tower infrastructure as well as maximizing collocation on existing buildings and towers to ensure the availability of wireless services throughout the state. The VTA can derive revenues from tower infrastructure through leasing slots on the tower to individual service providers, or by leasing the entire structure to a tower company that, in turn, manages the tower and subleases tower slots to service providers.⁴ In the alternative, the VTA may contribute to the capital cost of a tower developed by a private tower developer through lease of a slot on such a tower, which may be subleased or assigned to a cellular operator.

A typical tower suitable for use by a major cellular provider can cost between \$200,000 and \$250,000, exclusive of its radio equipment. Depending on costs to acquire rights to the land, to bring power, communications, or road access to a site, or to work with difficult site conditions, these expenditures can be modestly to substantially higher. In some cases, the cost can be somewhat less.

Commonly, the typical lease revenue derived from one service provider tenant on the tower does not generate enough revenue to pay for the capitalized development cost of the tower, except perhaps over a very long period of time (substantially more than 10 years). Towers break even and generate excess revenue when they can attract three or more tenants. However, the local market for wireless services greatly affects the number of potential tenants who are able or willing to pay rates commonly charged for tower space lease. In the least well-served parts of the state, which are of the greatest concern for the purposes of the VTA's mission, it may not be realistic to count on more than a single tenant on some towers over the short- to medium-term or longer.

This is not to say that, even in the case of a single-tenant tower, a tower cannot partially "pay its own way." Backed by a lease with an "anchor tenant" with a strong credit history, lease revenue from the tower can support either private capital investment or VTA borrowing to some degree, although not necessarily to support the entire capital cost of the tower.

Trends in the cellular industry have created significant headwinds for the tower portion of the VTA's strategy. Currently, and for at least the near term, cellular carrier capital budgets are focused on investments that increase the data capacity of their existing coverage footprints, to deal with dramatic growth in mobile broadband usage, drive smartphones, tablets, and other mobile data devices. Capital budgets available to make

⁴ Another alternative would be to sell a tower to a tower company for a lump-sum payment at some multiple of recurring lease revenues once the tower is developed and has a tenant or tenants.

investments in base station equipment to be located on towers that expand coverage of the network (especially in more rural markets) have been and are likely to be very tight. These changes decrease the likelihood of the VTA developing a large portfolio of revenue-producing towers.

Another significant barrier has been the carriers' preference to work directly with private tower companies with whom they have established vendor relationships. This has recently prompted the VTA to modify its strategy in this area of work, focusing on working through tower companies instead of constructing towers itself and leasing directly to carriers. In this revised strategy, the VTA would provide financial support to a tower company which could offer carriers attractive rates in unserved areas which would otherwise not provide a viable business case for the tower operator.

The VTA had previously initiated site acquisition activities (the longest stage of tower site development) in more than 30 Target Corridors, and has obtained land lease options on eight sites in unserved areas of the state. (Substantially more Target Corridors are the subject of site development by carriers independent of VTA activities.) The effectiveness of this strategy, however, depends on the willingness of providers to deploy their equipment and utilize these towers. For the reasons outlined above, there has been carrier interest in relatively few tower sites in areas that the VTA has identified as uncovered.

The VTA continues to work to provide incentives for expansion of cellular service through the construction of needed cellular tower facilities in areas where there are gaps in cellular coverage. As noted elsewhere in this document, in December 2012 the VTA completed construction of its Bethel Tower on schedule and began managing tower operation with AT&T as an initial lessee. The VTA has also solicited interest from tower companies, and an agreement with a major tower developer and a national cellular carrier is still under negotiation. Under this contract, the VTA would contribute to the capital cost of towers developed by the private tower company. The VTA intends to work to develop the tower portion of its strategy, to the extent that cellular carrier commitments to lease space will allow, but this is likely to be only one component of a portfolio of strategies for expanding cellular service.

Wireless Site Management and Marketing

Wireless Site Management and Marketing will dovetail the VTA's and the state's activities to streamline access to and licensing of state towers, lands, and buildings for wireless service. The VTA seeks to manage and market state lands, buildings, and towers for wireless infrastructure development. Presently, additional sites and structures are being made available to help expand new wireless service, and the state can leverage existing

assets without additional investment. Additionally, the VTA is able to offer discounts on license rates in return for commitments to expand service in non-prime areas.

Cellular or Broadband Equipment

Cellular and broadband equipment includes network hardware (e.g., transmitters, radios, power systems, etc.) and software (e.g., switches). While they have the potential to return revenue, the full capital cost of the investment may not always be recovered, or may be recovered over an extended period of time.

Developments within the cellular industry are bringing to market low-cost alternatives to conventional cellular tower and base station deployments. Traditional cellular equipment may include “macro” site equipment that is the same as, or similar to, conventional base station equipment commonly deployed throughout cellular carriers’ networks, including on tower structures. Cellular equipment may also now include “micro” site equipment comprising a variety of smaller-scale alternatives to conventional base stations, which are commonly located on poles or other alternatives to full-scale towers. The substantial cost of macro-site installations significantly limits the number of such sites that could be supported with the funds available to the VTA. The VTA is especially interested in the micro type of deployment because of its potential not only to lower the capital costs but also to structurally lower operating costs, which include tower space lease, backhaul, and power. Lowering these costs will help cellular networks to be self-sustaining in areas of low customer density.

Bearing in mind its paramount mission to facilitate services for the public, and with an understanding of the realities of the equipment market, the VTA’s preferable approach involves upfront investment and lease programs. This involves purchasing the requisite equipment outright, and then leasing it to a network provider who then manages the asset. Terms usually include a multi-year payback period with a low interest rate. The model ensures that the equipment is deployed correctly (thereby providing the service to the public), that some of the economic risk for the vendor is temporarily relieved, and that revenue is returned to the state, albeit with highly variable timing. It is important to note that extreme due diligence is followed in any of these contracts, involving solicitation of public comment, network engineering and design, RFPs, and negotiations. These are not steps taken lightly, but with due care and acknowledgement of the balance between their risks and rewards.

The VTA has been exploring and evaluating the potential for deploying a large number of low cost, small-scale sites located on utility poles, buildings or other existing structures to cover areas where investments in macro-site equipment is either impractical or too expensive. To that end, the VTA has identified a provider of “micro” site equipment to expand cellular service, CoverageCo. The VTA has signed a contract with CoverageCo

for a \$500,000 project to provide cellular coverage in Targeted Corridors via deployment of micro-cell equipment mounted on utility poles or other existing structures. This contract takes the form of a lease, whereby the VTA purchases the network equipment and leases it back to CoverageCo over an extended term. Additional investment would be made by CoverageCo in Target Corridors using its own private capital. This will be an initial project, and depending on the success of the initial project, could be expanded. VTA funding will purchase microcell equipment that will be leased to and operated by CoverageCo.⁵

Fiber Optic Infrastructure

Fiber optic infrastructure today comprises high-capacity cables carrying up to hundreds of fine glass strands that convey information in the form of light waves. They can be used to transmit large-bandwidth communication to and from local copper or wireless broadband network equipment nodes, or to and from base station equipment at cell site locations (“middle-mile” applications) or directly to individual homes, businesses, and institutions (“last-mile” applications). A single fiber optic cable may be engineered to provide strands for last-mile applications, middle-mile applications, or both in the same facility. Making the fiber optic strands useful for providing communications services involves adding electronics to the ends of the strands and certain intermediate points as necessary. Strands without the electronics are referred to as “dark” and the strands with the electronics are referred to as “lit.” It is very unlikely that the VTA would provide “lit” fiber, as service providers often prefer to manage their own electronics. Therefore, to the extent that the VTA would derive revenue from fiber optic infrastructure, it would be through the long-term lease or license of dark fiber optic strands to service providers.⁶

The VTA can help fund the development of infrastructure in areas that would otherwise be uneconomic to develop by using its non-profit status, and state appropriations. State funding and a shared-access model provide the opportunity for service providers to reduce their cost of gaining access to fiber facilities. Long-term leases of dark fiber strands by retail service providers or other types of large users would provide a revenue stream to pay for operating expenses (chiefly physical maintenance and pole attachment rates). Cash or in-kind capital contributions from service providers or utilities using the facilities or agreements to provide users strands in return for maintenance provide the opportunity for the VTA to mitigate its capital and operating costs.

⁵ Another VTA-funded project, the award to VTel Wireless for the expansion of cellular service, also takes advantage of “micro” as well as “macro” types of cellular sites. However, the VTel project is a grant, and will not produce revenue for the VTA.

⁶ This lease might take the form of a recurring payment or a lump-sum payment for the long-term right to use the facility.

VTA dark fiber projects include the Hardwick-Newport fiber project and the Orange County Fiber Connector, the Northern Borders Connectivity Project connecting to Canada at Derby Line, as well as a smaller fiber optic line in Barton, Vermont, being developed for the VTA by the Village of Orleans Electric Department. Each of these projects are creating a shared, multi-provider, multi-use fiber facility. In addition, a number of utility and economic development organizations have constructed or are planning to construct fiber facilities in the Northeast Kingdom which will be or could be connected to the Hardwick-Newport fiber route. The VTA has sought cooperative relationships with these organizations with the objective of establishing, to the extent possible, common management, marketing, and terms for dark fiber access. These connections will add value to each of these fiber facilities and facilitate their use by providers seeking to offer services in the community.

Unlike tower space leases to large cellular operators with well-established credit ratings, service providers that might lease dark fiber strands are more likely to have a less-established credit history, or to have a poor or mixed credit history. Therefore, unlike tower infrastructure, the case for bonding for the cost of fiber optic infrastructure is frequently less solid without a committed, long-term revenue stream from large and stable customers.

The extent to which lease payments for use of dark fiber optic strands will generate significant levels of revenue is unclear, particularly if the primary focus of the VTA's activity is (as it has been) on low-density unserved areas with few large customers. While it is possible that lease payments would eventually allow the recapture of some or even a significant share of the facilities' original capital cost over time, this is as yet unproven. Pricing access to dark fiber developed in the most rural parts of the state so as to attempt to recover a large share of the original capital cost could present a barrier to finding broadband and cellular service providers who will use the fiber to provide service. It is more likely that the VTA can, through providing low-cost access to dark fiber strands it develops, spur additional private investment in equipment to light up the dark fiber, build connections to customer locations along the route, or develop fiber optic spurs to provide service in additional areas. This private investment does represent a form of return on the original capital investment, albeit not a cash return to the VTA.

Potential for Revenue to Fund VTA Operating Expenses and Additional Investment in Infrastructure

Some potential exists for the VTA to develop a revenue stream from projects involving tower infrastructure, fiber optic facilities, and cellular and broadband equipment. However, the level and timing of the revenue that can be recovered from projects in process is uncertain. In addition, to the extent that capital funds appropriated are given out primarily in the form of grants, the potential for a future revenue stream substantially diminishes. On the other hand, a model in which upfront investment in infrastructure by the VTA yields immediate service for customers, with an extended payback period from the vendor, increases the likelihood of some future project income, although that revenue may be modest if the VTA focuses on the areas of the state with the poorest business cases.

The VTA's operating expenses have averaged approximately \$700,000 over the fiscal years FY2008-FY2013, apart from expenses related to infrastructure development and grants awarded. The level of operating expenditures necessary to sustain the VTA and its activities depends on the amount and diversity of new project development required of the organization to meet the state's broadband and cellular telecommunications needs.

A certain base level of operating funding (less than the average level since 2008) is required to keep the organization in existence and to ensure it meets its minimum set of statutory obligations. Although the barest minimum of operating expense will suffice to "keep the doors open," expenditures below a certain level are not sufficient to effectively implement new initiatives to expand or upgrade broadband and cellular infrastructure, especially activities that are revenue-producing. In essence, a bare minimum of expense is enough to keep the organization alive, but not to do very much.

Beyond base operational funding, expenditure levels have been and will continue to be driven by the level of new project and program development. Each new initiative requires a certain amount of work and certain skill sets—financial analysis and budget development, technical evaluation or engineering, legal assessment, and business process development and management—to get it "off the ground." These expenditures also do have significant economies of scale; operating expenses required to initiate \$1 million of grants or new infrastructure projects are a much larger fraction of the whole than those required to initiate \$10 million of new grants or infrastructure.

Another factor driving VTA operating costs is the diversity of its activities. With a wide variety of tools in its toolbox, the VTA has engaged or is engaged in a range of activities over its lifespan to assist in the expansion of broadband and cellular infrastructure and services. This includes tower site acquisition and development, fiber optic line development and management, telecommunications equipment leasing, and state property

management for use in providing wireless services, making grants, and seeking federal grants. This range of ways to impact expansion of services has worked to the VTA's advantage, allowing the organization to respond flexibly to shifting opportunities as well as changes in political direction and leadership. Engaging in each one of these activities, however, requires a certain level of operating expense. While there are economies of scope (organizing the development of new fiber optic infrastructure and new tower development does not require twice the operating expenses as just one or the other), successfully engaging in a wide range of activities requires greater expenditures than working with a narrow set.

Furthermore, the level of ongoing VTA operating expenditure relates to the level of change in its activities. Greater operating resources are required to get an activity off the ground than to maintain it in a steady state. For example, it is more resource-intensive to develop, seek public comment, and implement new parameters for a broadband grant program than it is to run a new grant round of an existing program. Since 2007, the VTA has seen a several significant changes in the statutory parameters and direction under which it has operated – most recently with Act 53 of 2011 and the FY2012-2013 capital bill (and not just related to grants) – as well as shifts due to developments in the marketplace or transitions in VTA leadership. While each one of these changes carries “startup” costs, greater consistency over time in the set of VTA programs and initiatives will tend to mitigate these costs.⁷

While grant-making activities probably require the smallest amount of initial VTA operating expenses (especially if program criteria remain relatively constant), they also return no revenue that could be used to cover operating expenses or continuously upgrade broadband and cellular infrastructure. New grants to expand or upgrade services will require fresh grant funding and additional operating expenditures for their administration. In addition, monitoring awarded grants to ensure that their benefits are delivered requires some level of expenditures for at least several years beyond the original grant award date.

Furthermore, the VTA has worked to target its resources on the least well-served, least economical portions of the state. This focus conflicts with an alternative approach that would aggregate together areas with better and worse business cases, creating a blended business case that would be more likely to be self-sustaining. While this focus is appropriate, it makes self-funding for the VTA much more challenging.

The technical and economic challenge of providing universal broadband and cellular service to Vermont's highly rural, mountainous terrain has led the VTA toward new approaches to creating infrastructure and expanding service. Standard practices and busi-

⁷ The VTA is fully cognizant, however, that change is sometimes required to respond to developing circumstances and to adjust a strategy that has not achieved acceptable results.

ness models for national carriers and equipment vendors often do not work for servicing customers in outlying areas. At the present time, the VTA believes that the projects it has developed, or is currently developing, can self-sustain their maintenance and operating costs and in some cases make modest contributions over time toward the original capital costs of the projects. The extent and timing of any such contributions is, however, very uncertain. To the extent that there is any excess revenue stream developed with funding received to date, it would allow for one of the following possibilities: partially offsetting of VTA operating expenses, or reinvesting additional infrastructure. The VTA has a strong preference for the latter – using any funds returned for reinvestment in infrastructure. However, the bottom line is that the amount of revenue likely to be returned will not likely be sufficient to offset both operating expenses and investment in new ventures completely, especially with the current tight focus on the least economical parts of the state.

Identification of the impact of activity on existing business providers

Through funds disbursed or awarded between 2011 and 2013, the VTA's activities have extended the ability of seven providers (Topsham Communications, Comcast, FairPoint Communications, Southern Vermont Cable, Sovernet, E.C. Fiber, and Cloud Alliance) to offer broadband service in Vermont by providing grant funds, as detailed in this report. All of these firms (or their affiliates) have existing business in the state which they will have the opportunity to expand through VTA assistance. Additional assistance in the form of discounted transport services for last-mile providers will be available through the Vermont FiberConnect project (owned and operated by Sovernet). In addition, these projects are bringing higher speed broadband services to their serving areas. And, as the telecommunications industry continues its transition nationally from a focus on fixed landline telephone services to broadband and mobile services, there is evidence that incumbent telecommunications providers are making additional investments to retain customers by offering better and faster services. By helping to provide much needed capacity infrastructure for backhaul, some of the VTA grant funds will also further enable the development of cellular services to businesses and individuals.

The VTA's activities are lowering the costs of existing cellular providers to provide service in rural low customer density areas of Vermont by providing opportunities to lower tower and backhaul expenses. The VTA has provided financial assistance for the build-out of rural roaming networks (as described in the section on VTA activities, above), which expands service, but provides an alternative to directly investing to expand their own cellular networks. This, in turn, provides an opportunity for multiple vendors – local broadband and telephone service providers as well as national cellular service providers – to become involved.

Finally, the VTA's dark fiber projects FiberConnect will interconnect with existing and planned fiber networks and provide multiple service providers the opportunity to expand their networks and services in rural communities at little to no capital cost, and with operating costs of a shared fiber facilities shared among the users.

Financial statement of the Authority, a summary of expenditures by the authority since inception and a forecast of expenditures

Vermont Telecommunications Authority
Balance Sheet
As of September 30, 2013

Assets

Current Assets	
VTA Checking	\$ 12,482
VTCorp	4,000
Repurchase Account	6,564,314
BTOP Checking	817
Total Cash	\$ 6,581,613
SBDD Accounts Receivable	\$ 17,981.75
BTOP Receivable	3,752
Sub Recipient A/R	2,671,477
Accounts Receivable-Other	54,361
Allowance for Doubtful Accounts	<u>(13,640)</u>
Total Current Assets	\$ 9,315,545
Property and Equipment	
Furniture and Equipment	\$ 37,018
Allowance for Depreciation	(26,675)
Tower / Equip Assets	235,480
Depreciation Allowance - T/E	(16,193)
Communications Radios Assets	25,795
Depreciation Allowance – C.R.	<u>(4,294)</u>
Total Property and Equipment	\$ 251,131
Other Assets	
Work In Progress	\$ 2,063,520
Total Other Assets	\$ 2,063,520
Total Assets	\$ 11,630,197

Vermont Telecommunications Authority
Balance Sheet (continued)
As of September 30, 2013

Liabilities & Net Assets

Current Liabilities	
Accounts Payable	\$ 2,063,698
BTOP Payable to Sub Recipient	2,716,477
Interco Payable to VTC	4,000
Accrued Expenses	6,788
Total Liabilities	\$ 4,790,964
Net Assets	
Net Capital Asset Investment	\$ 2,314,651
Temp. Restricted Net Assets	3,644,507
Unrestricted Net Assets & Net Income	880,075
Total Net Assets	\$ 6,839,233
Total Liabilities and Net Assets	\$ 11,630,197

Vermont Telecommunications Authority
Statement of Revenues & Expenses
July 1 - September 30, 2013

Operating Revenues	
Vermont State Appropriations	\$ 735,000
Other Receipts	4,512
Investment Income	2,589
Other Types of Income	13,708
Restricted Revenue – BTOP, SBDD, NBRC Grants	5,476,254
Total Revenue	\$ 6,232,063
Operating Expenses	
Infrastructure	\$ 2,182,810
Awards & Grants	5,784
Project Operating Expenses	27,410
Contract Services	21,579
Facilities & Equipment	17,933
Operations	11,889
Other Expenses	1,459
Salaries	166,396
Benefits	45,833
Site Acquisition & Permitting	1,615
Staff Travel & Meetings	5,439
Board Expenses	4,161
BTOP Expenses	5,491,756
Total Operating Expenses	\$ 7,984,064
Net Operating Income / (Loss)	\$ (1,752,001)
Other Expenses	
Capitalization of Project Costs	\$ (198,386)
Net Income/(Loss)	\$ (1,553,615)

Summary of VTA Revenues & Expenditures Since Inception

	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	All Revenues & Expenses Since Inception as of 06/30/13
REVENUES								
State General Appropriation	\$450,000	\$400,000	\$400,000	\$300,000	\$700,000	\$700,000	\$735,000	\$3,685,000
Operating Transfers	64,519	58,383	97,108	86,565				306,575
State Capital Appropriations ***	198,736	178,337	1,241,210	4,454,264	330,000	3,469,656		9,872,203
Special Project/Programs Appropriation *			250,000	2,850,000				3,100,000
BTOP Grant				1,405,803	12,231,076	21,006,565	5,412,975	40,056,419
State Broad Band Data & Development				65,157	86,505	97,565	22,558	271,785
Broad Band Data & Development-Indirect				13,031	17,301	23,670	4,512	58,514
Prior Year Broadband Grants Recaptured			176,863		31,630		40,721	208,493
Federal Infrastructure Project Revenues	4,055	7,070	7,232	28,722	18,265	8,786	2,589	76,719
Investment Income		539,580	501,025	1,189	17,048	29,004	13,708	1,101,554
Other>**								
Total Revenues	\$717,310	\$1,183,370	\$2,673,438	\$9,204,731	\$13,431,825	\$25,335,246	\$6,232,063	\$58,737,262
EXPENSES								
Salaries and Benefits	\$140,297	\$463,195	\$493,468	\$656,373	\$763,117	\$871,335	\$212,229	\$3,600,014
Contractual Services	93,631	452,329	356,120	350,256	284,980	282,633	33,468	1,853,417
Facilities and Equipment	18,738	39,282	38,618	33,067	35,200	33,580	9,447	207,932
Board Expense	17,535	16,236	8,111	7,947	13,697	16,995		80,521
Office and Administrative	32,515	36,346	30,987	53,271	61,208	39,659	40,084	294,070
Hiring	19,319	491	1,448	1,955	3,436	726		27,375
Depreciation	1,141	2,600	2,810	5,902	6,408	22,507	8,486	49,854
Broadband and Wireless Infrastructure	198,736	178,337	369,249	21,692	2,977,242	1,871,871	2,188,594	7,805,721
BTOP Grant				1,419,538	12,191,713	20,935,622	5,491,756	40,038,629
Total Expenses	\$521,912	\$1,188,816	\$1,300,811	\$2,550,001	\$16,337,001	\$24,074,928	\$7,984,064	\$53,957,533
BALANCE OF FUNDS								
June 30, 2008	\$195,398							
June 30, 2009	\$189,952							
June 30, 2010	\$1,562,579							
June 30, 2011	\$8,217,309							
June 30, 2012	\$5,312,133							
June 30, 2013	\$6,572,451							
September 30, 2013	\$4,820,450							

Forecast of VTA Expenditures for Remainder of FY 2014

<u>Expenses</u>	
Salaries and Benefits	\$ 699,913
Contract Services	503,057
Facilities and Equipment	42,403
Site Rent, Lease, and Acquisition Payments	642,400
Board Expense	23,700
Office and Administrative	164,958
Hiring	1,900
Depreciation	93,741
Grants and Infrastructure Projects	10,605,705
BTOP	<u>1,915,590</u>
Total Forecast Expenditures	<u>\$ 14,693,367</u>

A summary of financial commitments made by the Authority
Financial Commitments – Current Projects as of September 30, 2013

Project Name	Last-mile Broadband Grants											
	EC Fiber Thetford & Norwich	Comcast Cable Line Extensions - Braintree, Shaftsbury, Pownal	Comcast Cable Line Extensions - Chittenden	Topsham Communications Bradford and Topsham Project	FairPoint Ryegate, Barnet, and Rochester Project	FairPoint Bradford & Rupert	FairPoint Bennington, Brattleboro, Willimington	Southern VT Cable Newfane & Putney	EC Fiber Randolph	Consumer Financial Assistance Program	Exede Satellite Internet	Future Broadband Grants
Funds Allocated												
Vermont Capital Budget												
FY2010												
FY2011												
FY2012-2013	67,569	247,256	89,303	378,200	330,200	182,000	295,750	135,804	19,500		28,790	1,310,124
Vermont Capital Budget-Subtotal	\$ 67,569	\$ 247,256	\$ 89,303	\$ 378,200	\$ 330,200	\$ 182,000	\$ 295,750	\$ 135,804	\$ 19,500	\$ -	\$ 28,790	\$ 1,310,124
Vermont Special Appropriations												
North-link												
Backroads Broadband										973,606		
VT Special Appropriations--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 973,606	\$ -	\$ -
Grants Received												
BTOP Vermont Fiber Connect												
Gates/DOL Vermont Fiber Connect												
EDA Cellular Resiliency Grant												
Northern Borders Regional Commission												
State Broadband Data & Devel.												
Grants Received--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grants Awarded and Recaptured	\$ 100,000								\$ 19,074			
Total Funds Allocated	\$ 167,569	\$ 247,256	\$ 89,303	\$ 378,200	\$ 330,200	\$ 182,000	\$ 295,750	\$ 135,804	\$ 38,574	\$ 973,606	\$ 28,790	\$ 1,310,124
Total Funds Encumbered	\$ 167,569	\$ 247,000		\$ 378,200	\$ 330,200	\$ 182,000						
Funds Expended												
From Vermont Capital Budget												
FY2010												
FY2011												
FY2012-2013		1,225		60,547	91,952	54,626					996	
From Capital Budget-Subtotal	\$ -	\$ 1,225	\$ -	\$ 60,547	\$ 91,952	\$ 54,626	\$ -	\$ -	\$ -	\$ -	\$ 996	\$ -
From Vermont Special Appropriations												
North-link												
Backroads Broadband												
From VT Special Appropriations--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
From Grants Received												
BTOP Vermont Fiber Connect												
Gates/DOL Vermont Fiber Connect												
EDA Cellular Resiliency Grant												
Northern Borders Regional Commission												
State Broadband Data & Devel.												
From Grants Received--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grants Awarded and Recaptured	\$ 68,001											
Total Funds Expended	\$ 68,001	\$ 1,225	\$ -	\$ 60,547	\$ 91,952	\$ 54,626	\$ -	\$ -	\$ -	\$ -	\$ 996	\$ -
Funds Remaining by Source												
Remaining Vermont Capital Budget												
FY2010	-	-	-	-	-	-	-	-	-	-	-	-
FY2011	-	-	-	-	-	-	-	-	-	-	-	-
FY2012-2013	67,569	246,031	89,303	317,653	238,248	127,374	295,750	135,804	19,500	-	27,794	1,310,124
Remaining Vermont Capital Budget	\$ 67,569	\$ 246,031	\$ 89,303	\$ 317,653	\$ 238,248	\$ 127,374	\$ 295,750	\$ 135,804	\$ 19,500	\$ -	\$ 27,794	\$ 1,310,124
Remaining Vermont Special Appropriations												
North-link	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Backroads Broadband	-	-	-	-	-	-	-	-	-	973,606	-	-
Remaining VT Special Appropriations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 973,606	\$ -	\$ -
Grants Received												
BTOP Vermont Fiber Connect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Gates/DOL Vermont Fiber Connect	-	-	-	-	-	-	-	-	-	-	-	-
EDA Cellular Resiliency Grant	-	-	-	-	-	-	-	-	-	-	-	-
Northern Borders Regional Commission	-	-	-	-	-	-	-	-	-	-	-	-
State Broadband Data & Devel.	-	-	-	-	-	-	-	-	-	-	-	-
Remaining Grants Received	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Remaining Grants Awarded and Recaptured	\$ 31,999	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,074	\$ -	\$ -	\$ -
Total Funds Remaining	\$ 99,568	\$ 246,031	\$ 89,303	\$ 317,653	\$ 238,248	\$ 127,374	\$ 295,750	\$ 135,804	\$ 38,574	\$ 973,606	\$ 27,794	\$ 1,310,124

Financial Commitments – Current Projects as of September 30, 2013 [Continued]

Project Name	Mid-mile BB Grants	Other Fiber Projects				
	Vermont Fiber Connect	Hardwick-Newport Fiber Project	Northern Borders Connectivity Project	Barton Fiber Project	NEK Connector	Orange County Fiber Connector
Funds Allocated						
Vermont Capital Budget						
FY2010	150,279	250,000		297,363		
FY2011	2,209,000	360,680				514,220
FY2012-2013		70,000	170,000	628	12,651	415,780
Vermont Capital Budget-Subtotal	\$ 2,359,279	\$ 680,680	\$ 170,000	\$ 297,991	\$ 12,651	\$ 930,000
Vermont Special Appropriations						
North-link Backroads Broadband		\$ 250,000				
VT Special Appropriations-Subtotal	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -
Grants Received						
BTOP Vermont Fiber Connect	\$ 33,393,402					
Gates/DOL Vermont Fiber Connect	400,000					
EDA Cellular Resiliency Grant						
Northern Borders Regional Commission State Broadband Data & Devel.			219,898			
Grants Received-Subtotal	\$ 33,793,402	\$ -	\$ 219,898	\$ -	\$ -	\$ -
Grants Awarded and Recaptured						
Total Funds Allocated	\$ 36,152,681	\$ 930,680	\$ 389,898	\$ 297,991	\$ 12,651	\$ 930,000
Total Funds Encumbered	\$ 36,152,681	\$ 930,680	\$ 389,898	\$ 297,363		\$ 930,000
Funds Expended						
From Vermont Capital Budget						
FY2010	150,279	250,000		250,000		
FY2011	2,197,399	360,680				514,220
FY2012-2013		4,055	35,688		7,525	340,990
From Capital Budget-Subtotal	\$ 2,347,678	\$ 614,735	\$ 35,688	\$ 250,000	\$ 7,525	\$ 855,210
From Vermont Special Appropriations						
North-link Backroads Broadband		\$ 250,000				
From VT Special Appropriations-Subtotal	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -
From Grants Received						
BTOP Vermont Fiber Connect	\$ 28,007,918					
Gates/DOL Vermont Fiber Connect	200,000					
EDA Cellular Resiliency Grant						
Northern Borders Regional Commission State Broadband Data & Devel.			46,169			
From Grants Received-Subtotal	\$ 28,207,918	\$ -	\$ 46,169	\$ -	\$ -	\$ -
Grants Awarded and Recaptured						
Total Funds Expended	\$ 30,555,596	\$ 864,735	\$ 81,857	\$ 250,000	\$ 7,525	\$ 855,210
Funds Remaining by Source						
Remaining Vermont Capital Budget						
FY2010	-	-	-	47,363	-	-
FY2011	11,601	-	-	-	-	-
FY2012-2013	-	65,945	134,312	628	5,126	74,790
Remaining Vermont Capital Budget	\$ 11,601	\$ 65,945	\$ 134,312	\$ 47,991	\$ 5,126	\$ 74,790
Remaining Vermont Special Appropriations						
North-link Backroads Broadband	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Remaining VT Special Appropriations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grants Received						
BTOP Vermont Fiber Connect	\$ 5,385,484	\$ -	\$ -	\$ -	\$ -	\$ -
Gates/DOL Vermont Fiber Connect	200,000	-	-	-	-	-
EDA Cellular Resiliency Grant	-	-	-	-	-	-
Northern Borders Regional Commission State Broadband Data & Devel.	-	-	173,729	-	-	-
Remaining Grants Received	\$ 5,585,484	\$ -	\$ 173,729	\$ -	\$ -	\$ -
Remaining Grants Awarded and Recaptured						
Total Funds Remaining	\$ 5,597,085	\$ 65,945	\$ 308,041	\$ 47,991	\$ 5,126	\$ 74,790

Financial Commitments – Current Projects as of September 30, 2013 [Continued]

Project Name	Cellular Projects					Other Projects			Totals
	Cellular Tower Site Acq., Permitting and Construction Activities	Other Non-tower Development	EDA Cellular Resiliency Grant Project	CoverageCo Cellular Project	VTel Wireless Cellular Project	Grant Program and Public Comment Process Admin. and Oversight	Broadband Business Improvement Districts	Broadband Outreach and Coordination	
Funds Allocated									
Vermont Capital Budget									
FY2010	93,568								\$ 791,210
FY2011	469,864		400,500	500,000					4,454,264
FY2012-2013	722,195	9,600	51,500	52,000	2,644,093	142,200			7,375,143
Vermont Capital Budget-Subtotal	\$ 1,285,627	\$ 9,600	\$ 452,000	\$ 552,000	\$ 2,644,093	\$ 142,200	\$ -	\$ -	\$ 12,620,617
Vermont Special Appropriations									
North-link									\$ 250,000
Backroads Broadband						97,354	1,000,000		2,070,960
VT Special Appropriations--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 97,354	\$ 1,000,000	\$ -	\$ 2,320,960
Grants Received									
BTOP Vermont Fiber Connect									\$ 33,393,402
Gates/DOL Vermont Fiber Connect									400,000
EDA Cellular Resiliency Grant			1,601,800						1,601,800
Northern Borders Regional Commission									219,898
State Broadband Data & Devel.							525,420		525,420
Grants Received--Subtotal	\$ -	\$ -	\$ 1,601,800	\$ -	\$ -	\$ -	\$ 525,420	\$ -	\$ 36,140,520
Grants Awarded and Recaptured									\$ 119,074
Total Funds Allocated	\$ 1,285,627	\$ 9,600	\$ 2,053,800	\$ 552,000	\$ 2,644,093	\$ 239,554	\$ 1,000,000	\$ 525,420	\$ 51,201,171
Total Funds Encumbered	\$ 1,246,290	\$ 2,656	\$ 2,053,800	\$ 843,580	\$ 2,644,093	\$ 138,395	\$ -	\$ 525,420	\$ 47,459,825
Funds Expended									
From Vermont Capital Budget									
FY2010	93,568								\$ 743,847
FY2011	469,864		3,580	291,580					3,837,323
FY2012-2013	46,797	2,656	51,500	52,000	1,983,070	82,486			2,816,113
From Capital Budget-Subtotal	\$ 610,229	\$ 2,656	\$ 55,080	\$ 343,580	\$ 1,983,070	\$ 82,486	\$ -	\$ -	\$ 7,397,283
From Vermont Special Appropriations									
North-link									\$ 250,000
Backroads Broadband						55,909			55,909
From VT Special Appropriations--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 55,909	\$ -	\$ -	\$ 305,909
From Grants Received									
BTOP Vermont Fiber Connect									\$ 28,007,918
Gates/DOL Vermont Fiber Connect									200,000
EDA Cellular Resiliency Grant			14,327						14,327
Northern Borders Regional Commission									46,169
State Broadband Data & Devel.							351,087		351,087
From Grants Received--Subtotal	\$ -	\$ -	\$ 14,327	\$ -	\$ -	\$ -	\$ 351,087	\$ -	\$ 28,619,501
Grants Awarded and Recaptured									\$ 68,001
Total Funds Expended	\$ 610,229	\$ 2,656	\$ 69,407	\$ 343,580	\$ 1,983,070	\$ 138,395	\$ -	\$ 351,087	\$ 36,390,694
Funds Remaining by Source									
Remaining Vermont Capital Budget									
FY2010	-	-	-	-	-	-	-	-	\$ 47,363
FY2011	-	-	396,920	208,420	-	-	-	-	616,941
FY2012-2013	675,398	6,944	-	-	661,023	59,714	-	-	4,559,030
Remaining Vermont Capital Budget	\$ 675,398	\$ 6,944	\$ 396,920	\$ 208,420	\$ 661,023	\$ 59,714	\$ -	\$ -	\$ 5,223,334
Remaining Vermont Special Appropriations									
North-link	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Backroads Broadband	-	-	-	-	-	41,445	1,000,000	-	2,015,051
Remaining VT Special Appropriations	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 41,445	\$ 1,000,000	\$ -	\$ 2,015,051
Grants Received									
BTOP Vermont Fiber Connect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,385,484
Gates/DOL Vermont Fiber Connect	-	-	-	-	-	-	-	-	200,000
EDA Cellular Resiliency Grant	-	-	1,587,473	-	-	-	-	-	1,587,473
Northern Borders Regional Commission	-	-	-	-	-	-	-	-	173,729
State Broadband Data & Devel.	-	-	-	-	-	-	174,333	-	174,333
Remaining Grants Received	\$ -	\$ -	\$ 1,587,473	\$ -	\$ -	\$ -	\$ 174,333	\$ -	\$ 7,521,019
Remaining Grants Awarded and Recaptured	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51,073
Total Funds Remaining	\$ 675,398	\$ 6,944	\$ 1,984,393	\$ 208,420	\$ 661,023	\$ 101,159	\$ 1,000,000	\$ 174,333	\$ 14,810,477

VTA Financial Commitments – Completed Projects as of September 30, 2013

VTA Completed Projects														
Project Name	Legislative Recapture of Funds	NCIC Barnet and Bloomfield Project	FairPoint Jeffersonville Project	Cloud Alliance North-Central Project	North Cloud EBS Project	Town of West Fairlee	APCIS	Town of Canaan	Valley Net	Global Net	Powershift	Ripton Broadband Cooperative	Southern VT Broadband Cooperative	Totals
Geographic Area		Bloomfield, Brunswick, Maidstone, and Guildhall	Cambridge, Waterville, Fletcher	Wolcott, Woodbury, and Hardwick	Northeast Kingdom, Addison County, and Grand Isle	West Fairlee, Topsham	Stratton	Canaan/ Norton	25 Towns	Fletcher, surrounding	Elmore, Hardwick	Ripton	Stamford	
Funds Allocated														
Vermont Capital Budget														
FY2008								\$ 50,000	\$ 24,789	\$ 50,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 199,789
FY2009		79,445				49,446	49,446							178,337
FY2010				200,000										200,000
FY2011														-
FY2012-2013					25,795									25,795
Vermont Capital Budget-Subtotal	\$ -	\$ 79,445	\$ -	\$ 200,000	\$ 25,795	\$ 49,446	\$ 49,446	\$ 50,000	\$ 24,789	\$ 50,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 603,921
Vermont Special Appropriations														
North-link														\$ -
Backroads Broadband			779,040											779,040
VT Special Appropriations--Subtotal	\$ -	\$ -	\$ 779,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 779,040
Grants Received														
BTOP Vermont Fiber Connect														\$ -
Gates/DOL Vermont Fiber Connect														-
State Broadband Data & Development														-
Grants Received--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grants Awarded and Recaptured	\$ 50,000	\$ (25,376)		\$ 40,000			\$ (49,446)							\$ 15,178
Total Funds Allocated	\$ 50,000	\$ 54,069	\$ 779,040	\$ 240,000	\$ 25,795	\$ 49,446	\$ -	\$ 50,000	\$ 24,789	\$ 50,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 1,398,139
Total Funds Encumbered	\$ 50,000	\$ 79,445	\$ 799,040	\$ 240,000	\$ 25,795	\$ 49,446	\$ 49,446	\$ 50,000	\$ 24,789	\$ 50,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 1,492,961
Funds Disbursed														
Vermont Capital Budget														
FY2008								\$ 50,000	\$ 24,789	\$ 50,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 199,789
FY2009		79,445				49,446	49,446							178,337
FY2010				200,000										200,000
FY2011														-
FY2012-2013					25,795									25,795
Vermont Capital Budget-Subtotal	\$ -	\$ 79,445	\$ -	\$ 200,000	\$ 25,795	\$ 49,446	\$ 49,446	\$ 50,000	\$ 24,789	\$ 50,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 603,921
Vermont Special Appropriations														
North-link														\$ -
Backroads Broadband			779,040											779,040
VT Special Appropriations--Subtotal	\$ -	\$ -	\$ 779,040	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 779,040
Grants Received														
BTOP Vermont Fiber Connect														\$ -
Gates/DOL Vermont Fiber Connect														-
State Broadband Data & Development														-
Grants Received--Subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Grants Awarded and Recaptured	\$ 50,000	\$ (25,376)		\$ 40,000			\$ (49,446)							\$ 15,178
Total Funds Disbursed	\$ 50,000	\$ 54,069	\$ 779,040	\$ 240,000	\$ 25,795	\$ 49,446	\$ -	\$ 50,000	\$ 24,789	\$ 50,000	\$ 20,000	\$ 25,000	\$ 30,000	\$ 1,398,139
Total Unallocated Funds Remaining	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

VTA Financial Commitments – Summary as of September 30, 2013

	Funds Appropriated, Awarded, or Recaptured	Funds Allocated to Closed Projects	Funds Allocated to Current Projects	Funds Not Yet Allocated to Projects	Funds Received	Funds Received Not Yet Expended
Funds by Source						
Vermont Capital Budget						
FY2008	\$ 198,736	\$ 199,789	\$ -	\$ (1,053)	\$ 198,789	\$ (1,000)
FY2009	178,337	178,337	-	-	178,337	-
FY2010	991,210	200,000	791,210	-	991,210	47,363
FY2011	4,454,264	-	4,454,264	-	4,454,264	616,941
FY2012-2013	9,885,519	25,795	7,375,143	2,484,581	3,799,656	957,748
Vermont Capital Budget-Subtotal	\$ 15,708,066	\$ 603,921	\$ 12,620,617	\$ 2,483,528	\$ 9,622,256	\$ 1,621,052
Vermont Special Appropriations						
North-link	\$ 250,000	\$ -	\$ 250,000	\$ -	\$ 250,000	\$ -
Backroads Broadband	2,850,000	779,040	2,070,960	-	2,850,000	2,015,051
VT Special Appropriations--Subtotal	\$ 3,100,000	\$ 779,040	\$ 2,320,960	\$ -	\$ 3,100,000	\$ 2,015,051
Grants Received						
BTOP Vermont Fiber Connect	\$ 33,393,402	\$ -	\$ 33,393,402	\$ -	\$ 25,332,667	\$ (2,675,251)
Gates/DOL Vermont Fiber Connect	400,000	-	400,000	-	200,000	-
EDA Cellular Resiliency Grant	1,601,800	-	1,601,800	-	-	(14,327)
Northern Borders Regional Commission	219,898	-	219,898	-	5,447	(40,722)
State Broadband Data & Development	525,420	-	525,420	-	342,419	(8,668)
Grants Received--Subtotal	\$ 36,140,520	\$ -	\$ 36,140,520	\$ -	\$ 25,880,533	\$ (2,738,968)
Grants Awarded and Recaptured	\$ 159,074	\$ 15,178	\$ 119,074	\$ 24,822	\$ 159,074	\$ 75,895
Total Funds	\$ 55,107,660	\$ 1,398,139	\$ 51,201,171	\$ 2,508,350	\$ 38,761,863	\$ 973,030
Total Funds Encumbered		\$ 1,492,961	\$ 47,459,825			
Funds Expended						
From Vermont Capital Budget						
FY2008		\$ 199,789	\$ -			
FY2009		178,337	-			
FY2010		200,000	743,847			
FY2011		-	3,837,323			
FY2012-2013		25,795	2,816,113			
Capital Budget-Subtotal		\$ 603,921	\$ 7,397,283			
From Vermont Special Appropriations						
North-link		\$ -	\$ 250,000			
Backroads Broadband		779,040	55,909			
Special Appropriations--Subtotal		\$ 779,040	\$ 305,909			
From Grants Received						
BTOP Vermont Fiber Connect		\$ -	\$ 28,007,918			
Gates/DOL Vermont Fiber Connect		-	200,000			
EDA Cellular Resiliency Grant		-	14,327			
Northern Borders Regional Commission		-	46,169			
State Broadband Data & Devel.		-	351,087			
Grants Awarded and Recaptured		15,178	68,001			
Grants Received--Subtotal		\$ -	\$ 28,619,501			
Total Funds Disbursed		\$ 1,398,139	\$ 36,390,694			
Total Funds Remaining		\$ -	\$ 14,810,477			

A list and summary of all contracts and agreements entered into by the Authority in FY 2013 and a list and summary of any rail right-of-way agreements entered into by the Authority including any waivers of charges for comparable value to the state granted under 19 V.S.A. §26a.

I. VTA Obligations to Vendors			
Contractor	Maximum Contracted Amount	Amount Spent	Reason
Office Administration			
Capitol Plaza	\$32,860	\$32,860	Office space 9/12-10/13
Cloward, William	N/A	550	Database consulting
Northeast Benefits (FJG Consulting Group)	N/A	584	Human resources consulting
Graham & Graham	125,000	110,657	Auditor
NFP Securities/FJG Financial	1,000	250	Employee retirement plan administrators
Signal Advertising	N/A	250	Website hosting
Standard Life Insurance Co.	N/A	1,560	Employee life insurance
Pole Licensing & Attachment Agreements			
FairPoint Communications	N/A		Pole attachment agreement: Hardwick-Newport
Green Mountain Power	N/A		Pole attachment agreement
Hardwick Electric Department	N/A		Pole attachment agreement
NHOS	N/A		Pole attachment agreement
ValleyNet	150,000	123,467	Pole licensing
Vermont Electric Company	N/A		Pole attachment agreement: Essex
Vermont Electric Company	N/A		Pole attachment agreement: Hardwick-Newport
Washington Electric Company	N/A	1,664	Pole attachment agreement: Hardwick-Newport
Projects & Programs			
American Tower Company	\$640,000		Cellular tower deployment
Bennett & Bennett, PLLC	15,000	7,587	Legal consulting
Caron & Assoc. Design	3,000		Balloon testing
Corning Fiber	584,813	502,688	Provision of fiber optic cable
Eustis Cable Enterprises	278,432	197,309	Fiber infrastructure
Gravel & Shea	35,000	29,092	Legal consulting
Graybar	236,225	214,732	Provision of fiber optic cable
Matrix Design Group - engineering	420,000	192,084	Fiber infrastructure
Matrix Design Group - construction	393,500	244,443	Fiber Infrastructure: OCFC
McNeil Leddy & Sheahan	5,000	4,844	Legal consulting
New Hampshire Optical Systems	7,389		Make-ready costs for BTOP Essex Project
Tison	30,000	21,414	Fiber pricing
Vanu CoverageCo	500,000	293,000	Sale of wireless mobile network
Waveguide	50,000		Fiber maintenance

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I. VTA Obligations to Vendors - (continued)			
Contractor	Maximum Contracted Amount	Amount Spent	Reason
Leases & Licenses			
AT&T Bethel Tower	N/A	600	Bethel Tower Land Lease
FairPoint Communications	9,600		Dark Fiber Leasing for Orange County
FairPoint Communications	14,020		Fiber Interconnection Points
ValleyNet	N/A		Dark Fiber Leasing for Orange County
Vanu CoverageCo	N/A		Leaseback of wireless mobile network

II. Carrier Obligations to VTA			
Contractor	Maximum Contracted Amount	Amount Received	Reason
FairPoint Communications	9,600		Dark fiber leasing for Orange County
FairPoint Communications	14,020		Fiber interconnection points
ValleyNet	N/A		Dark fiber leasing for Orange County
Vanu CoverageCo	N/A		Leaseback of wireless mobile network

III. VTA Land Leases & Lease Options			
Company/Person	Land	Renewed	Option Exercised in FY 2014
Town of Bethel	\$250	N/A	\$600
Ronald Unkert	250	250	N/A
Stratton Fire Department	250	250	N/A
Robert Rowell	250	250	Sold to AT&T
Kent Blair	250	250	N/A
Raymond McCall, Jr.	250	250	N/A
Karen Collins/Cleland Cochrane	250	250	N/A
Alissa & Jason Mulligan	250	250	N/A

The Authority has an operating lease for a copier at \$189 per month for sixty (60) months effective August 28, 2012. The Authority has no rail right-of-way agreements or any waiver of charges for comparable value.