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January 15, 2018

The Honorable Christopher Bray, Chair Senate Committee on Natural Resources and Energy The Honorable Steve Carr, Chair House Committee on Energy and Technology

The Honorable Ann Cummings, Chair Senate Committee on Finance

#### Re: Connectivity Division Annual Report

Honorable Senators and Representatives:

I am pleased to submit this report on the activities of the Pubic Service Department's Connectivity Division, pursuant to 30 V.S.A. § 202e(e).

If you have any questions or concerns upon reading this report, please do not hesitate to contact myself or Clay Purvis, Director for Telecommunications and Connectivity.

Very truly yours,

Commissioner



# Report to the General Assembly on the Activities of the Connectivity Division for Fiscal Year 2017

**January 15, 2018** 



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<sup>1</sup> Appendix 4 is formatted for tabloid (11"x17") size paper.

#### Introduction

Every year, on or before January 15th, the Department of Public Service ("Department"), through the Division for Telecommunications and Connectivity ("Division") submits an annual report to the General Assembly. This report is completed in conjunction with the Telecommunications and Connectivity Advisory Board and Regional Planning Commissions.

#### This report includes the following:

- 1. Financial statements covering the Division's operations during the year including:
  - a. A summary of all grant awards
  - b. Contracts and agreements entered into by the Division
- 2. The areas served and the areas not served by broadband that has a download speed of at least 4 Mbps download and an upload speed of at least 1 Mbps
- 3. The areas served and the areas not served by broadband that has a download speed of at least 25 Mbps download and an upload speed of at least 3 Mbps
- 4. The areas served and the areas not served by broadband that has a combined download and upload speed of at least 100 Mbps
- 5. If monetarily feasible, the areas served and the areas not served by wireless communications
- 6. Cost estimates to provide such service to the areas not served in the four levels of service listed above

In addition, the report shall include, "with the assistance of the Telecommunications and Connectivity Board and with input from the regional planning commissions, an action plan that conforms with the State Telecommunications Plan along with goals stated in 30 V.S.A. § 202e(a)." Division staff met with the Telecommunications and Connectivity Advisory Board on December 11 to receive input on the Action Plan and this report.. The Division presented the Action Plan to the Regional Planning Commissions on January 4th.

#### Telecommunications and Connectivity Division

The Division works to improve access to affordable telecommunications technology for all Vermonters, supports universal availability of voice and broadband, and leads the state's telecommunications policy and regulatory efforts. The Division is led by a division director and has three full time staff members. The Division oversees the telephone and cable industries, and advocates for the public interest in telecommunications matters before the Public Utilities Commission, including review of mergers, tariffs, and licenses. The Division is responsible for the preparing the state Telecommunications Plan. The Division annually gathers broadband availability information to identify underserved locations statewide and prepares maps and statistics depicting information at three speed tiers. The Division meets with communities throughout the state in an effort to promote and expand access to high speed Internet at underserved locations. The Connectivity Division awards broadband development grants from the Connectivity Initiative as part of its effort to bring high speed Internet to Vermont's hardest to reach locations. The Division manages and leases roughly 340 route miles of state-owned open access fiber optic cable located throughout Vermont. The Division also administers the

Vermont Telecommunication Relay Service, connecting individuals who are deaf, deaf-blind, hard-of-hearing, or have a speech disability, with users of standard telephones.

#### Activities of 2017

Connectivity Advisory Board: The Telecommunications and Connectivity Advisory Board is an eight-member board charged with making recommendations to the Commissioner of Public Service regarding his or her telecommunications responsibilities and duties. The Board consists of members of government and the public. The Board provides advice to the Commissioner of Public Service on a number of topics, including telecommunications policy and planning, and the Connectivity Initiative grant program. For much of 2016 and 2017, the Board lacked members sufficient for a quorum. Department staff found and sought appointment for two members. In 2017 the Connectivity Advisory Board met four times in 2017 to review grant proposals, discuss statutory reporting, and to review additional tasks and projects.

<u>Connectivity Initiative</u>: Through the CI Grant program, \$547,500 in grant funding was awarded to three different providers for expansion projects in six towns, connecting 307 new addresses. Telecom and Connectivity staff has met with twenty-two rural and underserved communities to discuss their individual town broadband needs. These towns may apply for future rounds of Connectivity Initiative funding.

State-Owned Dark Fiber: All fiber construction projects are complete and in operation.

<u>Mapping</u>: DPS staff issued a data request to telecom providers in the fall of 2017, and has compiled the data for this report.

Regulatory Matters: Division staff are closely involved with the regulatory side of the Department's operations. 2017 saw several large regulatory dockets, including Burlington Telecom's CPG renewal (Docket #8719), Comcast CPG renewal (Docket #8301), and the transfer of control by merger of the FairPoint companies to Consolidated Communications (Docket #8881). Staff also worked closely with the Department of Children and Families to implement changes to the Vermont Lifeline program made in Act 41 of this Biennium. Additionally, staff reviewed and commented on numerous routine regulatory and compliance filings.

<u>Act 53 Legislative Report:</u> Act 53 directed the Division to make recommendations to the General Assembly on how the Public Utilities Commission can improve public access to its proceedings using video conferencing technology. The Division dedicated one staff member to this project full time for three months. The report was filed on December 14<sup>th</sup>, 2017.

<u>Telecommunications Plan</u> – The Division commenced the process for updating the Vermont Ten Year Telecommunications Plan.

<u>High Cost Program Certifications</u>: At the end of 2017, seven Vermont telephone companies were certified as "Vermont Eligible Telecommunications Providers" (Dockets Nos. 8416 and 8542). The Connectivity Fund paid \$475,000 in high cost support to five telephone companies, which

represented three years of support. The FairPoint Communications companies have not yet received support. Support was conditional on approval of FairPoint's "Alternative Buildout Plan," which the Public Utilities Commission approved on December 21<sup>st</sup>, 2017.

# Operating and Financial Statements

# Summary of Grant Awards

The Division administers a grant program established under 30 V.S.A. §7515b designed "to provide each service location in Vermont access to Internet service that is capable of speeds of least 10 Mbps download and 1 Mbps upload, or the FCC speed requirements established under Connect America Fund Phase II..." The program is funded through the Vermont Universal Service Fund. Two rounds of grants have been awarded, see tables 1 and 2 below. Awards for a third round of grants are pending.

Table 1
Round: CI 2015
Date of Award: May 5, 2015

Company	Amount Awarded	Number Underserved	Cost per Address	Town	Technology	Actual Amount
Comcast	\$1,425	1	\$1,425	Jamaica	Cable	\$ 952.59
Comcast	\$215,163	13	\$16,551	Norwich	Cable	\$ 58,897.37
ECFiber	\$49,984	17	\$2,940	Randolph	FTTP	\$ 49,984.00
ECFiber	\$267,944	67	\$3,999	Royalton	FTTP	\$ 267,944.00
ECFiber	\$39,976	20	\$1,999	Pittsfield	FTTP	\$ 39,976.00
ECFiber	\$1,500	2	\$750	Norwich/Thetford	FTTP	\$ 1,500.00
FairPoint	\$200,000	36	\$5,556	Reading	DSL	\$ 164,488.00
FairPoint	\$90,000	16	\$5,625	Bradford	DSL	\$ 90,000.00
Non-Standard Drops	\$19,951					\$ 4,000.00
Total:	\$885,943	172		9 Towns		\$ 677,741.96

Table 2 Round: CI 2016-01 Date of Award: October 16, 2016

Company	Amount Awarded	Number Underserved	Town	Technology
SVBC	\$22,505	71	Readsboro	WISP
FairPoint	\$90,000	108	Peru	DSL
FairPoint	\$87,500	57	Lowell	DSL
FairPoint	\$90,000	50	Canaan	DSL
EC Fiber	\$13,500	13	Stockbridge	FTTP
EC Fiber	\$43,500	38	Norwich	FTTP
EC Fiber	\$12,000	9	Sharon	FTTP
EC Fiber	\$24,000	14	Randolph	FTTP
EC Fiber	\$10,500	6	Royalton	FTTP
EC Fiber	\$17,000	9	Norwich	FTTP
EC Fiber	\$36,000	19	Chelsea	FTTP
Pear Networks	\$22,695	14	W. Craftsbury	FTTP
Pear Networks	\$27,795	15	S.W. Craftsbury	FTTP
WCVT	\$61,638	28	Charlotte	FTTP
Total:	\$558,633	451	13 Towns	

Table 3 Round: CI 2016-02

Date of Award: August 2, 2017

Company	Amount Awarded	Number Underserved	Cost per Address	Town	Technology
FairPoint	\$55,000	53	\$1,038	Reading/Woodstock	DSL
FairPoint	\$120,000	109	\$1,101	Whitingham	DSL
EC Fiber	\$13,300	7	\$1,900	Royalton	FTTP
EC Fiber	\$28,000	13	\$2,154	Stockbridge	FTTP
EC Fiber	\$31,200	11	\$2,836	Randolph	FTTP
Comcast	\$300,000	114	\$2,632	Cavendish	Cable
Total:	\$547,500	307		6 Towns	

# Connectivity Fund

The Vermont Universal Service Fund (VUSF) is a special fund supported through an assessment on retail telecommunications services provided within Vermont. The VUSF is managed by a fiscal agent, Solix, Inc., under contract with the Department of Public Service. In accordance with 30 V.S.A. § 7511, monies collected by the fiscal agent are deposited into the VUSF and are used to support the following costs and programs, ranked in order of priority:

- (A) Costs payable to the fiscal agent under its contract with the Commissioner;
- (B) The Vermont Telecommunications Relay Service (and the Equipment Distribution Program);
- (C) The Vermont Lifeline program;
- (D) Enhanced-911 services;
- (E) The Connectivity Fund (comprised of the Connectivity Initiative and the High Cost Program).

In Act 190 of 2014, the legislature set the VUSF assessment rate at a flat 2%. Act 41 of 2015 transferred oversight responsibility of the VUSF to the Department of Public Service. The current 2% charge is assessed on telecommunications services that include telephone, mobile wireless voice, and prepaid wireless. Voice over Internet Protocol (VoIP) providers also contribute to the VUSF. The rate is collected on telecommunications services only; broadband internet service revenues are not subject to the assessment.

Funds designated for use by the Connectivity Fund are apportioned as follows: 55% of funds support the Connectivity Initiative, and 45% of the funds support the High Cost Program. The High Cost Program provides financial support to Vermont Eligible Telecommunications Carriers (VETC) for lines operating in designated high cost areas. The Connectivity Initiative is a grant program administered by the Division for the purpose of expanding broadband technologies to underserved areas. Activities under this program are discussed on pages 2-3 of this report.

#### FY2016 Funds Designated for Use by the Connectivity Fund

Pursuant to its authority under 30 V.S.A. § 7516, VUSF fiscal agent Solix designated the amount of \$1,140,665 for use by the Connectivity Fund in fiscal year 2016. Of the \$1,140,665, \$270,000 was appropriated to the Department of Public Service, \$391,799.25 was allocated to the High Cost Program, and \$478,865.75 was allocated to the Connectivity Initiative. \$77,407 of unspent grant funds are applied to this year's Connectivity Initiative award, bringing the total to \$556,273.

#### FY2017 Funds Designated for Use by the Connectivity Fund

Pursuant to their authority under 30 V.S.A. § 7516, the fiscal agent designated the amount of \$461,000 for use by the Connectivity Fund in fiscal year 2017. Of the \$461,000 designated, \$253,550 was made available to the Connectivity Initiative grant program and \$207,246 was made available to the High Cost Program. In addition, the Connectivity Initiative grant program of the Connectivity Fund received a one-time appropriation of \$300,000 in fiscal year 2017 as part of the FY17 Capital Construction Budget Adjustment Act 160. The total designated for disbursement in 2017 is \$553,550.

## FY2018 Funds Designated for Use by the Connectivity Fund

This year, the VUSF fiscal agent determined that there was \$400,000 available to the Connectivity Fund for Fiscal Year 2018. This money was apportioned to the connectivity programs in accordance with state law. Fifty-five percent, or \$220,000, was apportioned to the Connectivity Initiative. Forty-five percent, or \$180,000, was dedicated to the High Cost Program.

#### Connectivity Fund Financials Ending June 30, 2017

	YTD Total	Con	ousands) 2017 nectivity tiative	Hig	jh Cost
Disbursements Connectivity initiative High cost	\$ (423) (475)	\$	(423)	\$	(475)
	(898)		(423)		(475)
Interest income	10		6		4
Appropriations FY17 Connectivity fund from VUSF FY17 Capital bill- unfunded, due from Capital Bill	461 300		254 300		207
	761		554		207
Change in fund balance	\$ (127)	\$	137	\$	(264)
Fund balance, beginning of year	\$ 2,800				
Fund balance, funded by VUSF, end of year Fund balance, unfunded, due from Capital Bill, end of year Total fund balance, end of year	\$ 2,373 300 \$ 2,673				
Fund balance, uncommitted Fund balance, committed	\$ 2,109 \$ 564				

# Broadband Availability Data

# Areas served at 4 Mbps down and 1 Mbps upload speed or better

Data on broadband availability as of June 30<sup>th</sup>, 2017, indicates that of the 303,835<sup>2</sup> business and residential locations (E911 building locations) in the state, broadband service of at least 4/1 Mbps or better is presently available from an Internet service provider at all but 20,898 locations. The previous report showed 28,382 underserved locations; an improvement of 7,487 locations. Information showing the number of locations that are served and underserved on a town and county basis is included in Appendix 4 and depicted as a map in Appendix 2.

A very high-level attempt has been made to identify the cost to deploy networks that can provide broadband with speeds of 4/1 Mbps based on estimate information received during the Connectivity Grant rounds that have occurred. The average cost is approximately \$1,600 per site which means, for 20,898 locations, the cost would be upwards of \$33 million.

# Areas served at 25 Mbps down and 3 Mbps upload speed or better

Internet service provider data of broadband availability, as of June 30, 2017, indicates that of the 303,835 business and residential locations (E911 building locations) in the state, broadband service of at least 25/3 Mbps or better is presently available from a service provider at all but 81,795 locations. The previous report showed 84,592 underserved locations; an improvement of 2,797 locations. This increase is likely due to a change in the way cable companies have reported service and not due to expansion of cable service. Information showing the number of locations that are served and underserved on a town and county basis is included in Appendix 4 and depicted as a map in Appendix 2.

A very high level attempt has been made to identify the cost to deploy networks that can provide broadband with speeds of 25/3 Mbps based on estimate information received during the three Connectivity Grant rounds that have occurred. The average cost is approximately \$2,800 per site, which means, for 81,795 locations, the cost would be upwards of \$230 million.

# Areas served at 100 Mbps down and 100 Mbps upload speed

As of June 30<sup>th</sup>, 2017, based on information provided to the Department (DPS) by Internet service providers, the data indicates that of the 303,835 business and residential locations (E911 building locations) in the state, broadband service of 100/100 Mbps is presently available from a service provider for only 40,838 locations. Another 262,997 do not have this access. The previous report showed 39,364 served locations; an improvement of 1,474 locations. Information showing the number of locations that are served and underserved on a town and county basis is included in Appendix 4 and depicted as a map in Appendix 2.

A very high-level attempt has been made to identify the cost of deploying networks that can provide broadband with speeds of 100/100 Mbps. The average cost is approximately \$2,300 per site which means, for 262,997 locations, the cost would be upwards of \$600 million. This

<sup>&</sup>lt;sup>2</sup> Previous reports listed a total of 304,875 locations. The difference/reduction of 1040 locations is due to changes in which categories of locations are considered "buildings".

estimate is based on average cost per location of all proposals submitted during the past three Connectivity Initiative grant rounds.

#### Wireless Communications

Information in this section is draw from deployment data reported to the FCC by facilities-based providers of mobile wireless service. In response to inquiries for broadband availability information, most providers have directed the Department to use information they submit to the FCC on Form 477. The Department has not prepared or modified the coverage information and makes no guarantee as to its accuracy. The data is publicly available on the FCC website in GIS format at this website: <a href="https://www.fcc.gov/mobile-deployment-form-477-data">https://www.fcc.gov/mobile-deployment-form-477-data</a>

The instructions for the FCC form 477 direct mobile wireless service providers to submit maps representing the geographic extent of service deployment. All maps should be prepared with a precision of 100 meters. This means that a single pixel represents 2.5 acres (a square 328 feet per side) and depicts either the presence or lack of coverage throughout that area. Providers are directed to submit separate maps for each different technology employed for both voice and broadband. The Department aggregated this coverage information to create two maps for each provider representing voice and broadband deployment. Where a provider submitted separate coverage areas for different technologies employed, these are depicted on the same map in different colors. Where coverage areas overlap, the technology with lesser coverage is laid over the technology with greater coverage. The data may not depict coverage offered through roaming arrangements with other providers.

For mobile voice deployment, the instructions direct providers to submit maps that reflect where users should expect to be able to make, maintain, and receive voice calls.

For mobile broadband deployment, the instructions direct providers to indicate the minimum advertised upload and download speeds, or if minimum speeds are not advertised, the minimum speeds consumers should expect to receive. The coverage area should depict the boundaries where, according to the providers, users should expect to receive those speeds. The FCC ruled that the speed information submitted with the Form 477 Mobile Broadband Deployment data is confidential and has thus withheld this information. The instructions state that broadband service, for these reporting purposes, must enable users to access the Internet with a speed exceeding 200 kbps in at least one direction. Therefore the coverage maps depict the availability of service of at least 200 kbps.

The table below relates the Technology Codes used in FCC form 477 and the associated technology used for the provision of service.

Code	Description	Common name	Service type
80	WCDMA/UMTS/HSPA	3 G	Voice & Broadband
81	HSPA+	3.5 G	Voice & Broadband
82	EVDO/EVDO RevA	3.5 G	Voice & Broadband
83	LTE	4 G	Voice & Broadband
85	CDMA	2 G	Voice
86	GSM	2 G	Voice

The complete FCC Form 477 instructions are posted on the FCC website at this website: https://transition.fcc.gov/form477/477inst.pdf

# **BROADBAND ACTION PLAN**

January 15, 2018

The State of Vermont is committed to ensuring that all Vermonters have the best available high-speed Internet access. The intent of Vermont's telecommunications planning and policy law is to "support measures designed to ensure that by the end of the year 2024 every E-911 business and residential location in Vermont has infrastructure capable of delivering Internet access with service that has a minimum download speed of 100 Mbps and is symmetrical." To that end, the Department of Public Service ("Department") is directed to promote "access to affordable broadband service to all residences and businesses in all regions of the State." Legislation directs the Department to start with those locations that lack service of 4/1 Mbps or better, and provide each with access at 10/1 Mbps<sup>3</sup>. This Action Plan, prepared pursuant to state law<sup>4</sup>, offers a strategy to advance these goals.

Fiber to the premises (FTTP) is widely understood to be the best technology for reaching the 2024 goal, but other technologies, including hybrid fiber coax (HFC) cable service (CableLabs DOCSIS 3.1 standard), DSL (ITU VDSL2 standard), and even mobile wireless (3GPP 5G standard) are also capable of meeting these requirements. Because HFC cable service is widely available in the state, existing cable networks should be considered as an important element in the state's overall broadband strategy.

Broadband affordability remains a challenge. Communities that can afford to tackle broadband expansion will succeed in improving service. But many communities cannot afford the capital costs of infrastructure deployment. Furthermore, many would-be consumers in low income towns cannot afford the retail rate for the service itself. The FCC has taken steps to address low-income accessibility, such as expanding the popular lifeline program to wireless carriers and broadband providers. Some carriers also offer low-income packages. Yet, where families have access to only one carrier, these programs may not be available. Affordability is a criterion for the Department to weigh when awarding grants.

# New models for broadband development

Vermont has seen significant improvement in broadband availability but much work remains. State and federal funding constraints on broadband investment are limiting the current approach and new models for broadband deployment are needed. State policy must strengthen the connection between the demand for rural broadband and the Vermont-based industries that are likely to benefit from broadband deployment. With the increase of Internet of Things (IoT) ready appliances and services, broadband access will be necessary to support the basic functions of most households, and these services will be delivered by edge providers over broadband capable networks. Electric companies will manage load with micro load control systems. Health care will be delivered by the Internet, allowing patients the opportunity to heal in their own homes. Intelligent Transportation Systems (ITS) will make our highways safer and reduce carbon emissions. Educational opportunities will also be extended with broadband, allowing children access to globally available learning platforms. Without broadband, these innovations will not be possible.

The State should explore ways to leverage public-private partnerships in healthcare, education, transportation, and energy sectors in support of broadband expansion. The Department will work with other state agencies, including Agency of Transportation, Agency Commerce & Community

Development, Department of Health, Agency of Education, and other stakeholders to realize our shared futures.

# **Objectives**

Vermont legislation refers to the minimum technical service characteristic objectives of broadband service ("Objectives") to serve two specific purposes: a.) locations lacking services at these speeds will be eligible for State support<sup>5</sup>, and b.) grantees accepting State support will be obligated to provide services at these speeds.<sup>6</sup> Vermont legislation directs the Department to define the Objectives in the Vermont Telecommunications Plan<sup>7</sup>. The 2014 Vermont Telecommunications Plan set the Objectives at 4 Mbps down and 1 Mbps up. After the goal of universal availability of at least 4/1 Mbps is met, the focus will be directed toward furtherance of the goal of ensuring universal availability at 100/100 Mbps. This will be accomplished through the establishment of interim speed tier Objectives in the Telecommunications Plan, listed below.<sup>8</sup>

2014 - 2017: 4/1 Mbps
2017 - 2020: 10/1 Mbps
2020 - 2024: 100/100 Mbps

#### Coordination with FCC

The Federal Communication Commissions ("FCC") policies dictate separate approaches for two types of areas: completely unserved areas and partially served areas. The FCC Connect America Fund (CAF) Phase II program is focused exclusively on completely unserved areas. The program defined areas eligible for support as census blocks where no location had access to service at 4/1 Mbps from a provider other than the incumbent local telephone company. The program will, by 2021, bring broadband Internet access at 10/1 Mbps service to the majority of locations in these completely unserved areas. The State of Vermont's Connectivity Fund<sup>11</sup>, (including the High-Cost Program and the Connectivity Initiative) supported by the Vermont Universal Service Fund, will be directed to bring service to locations not served by the CAF II program. These are areas with locations that lack access to services at 4/1 Mbps or better but that are excluded from the CAF II program because they are in partially served areas or areas in which CAF II providers have chosen not to serve. The Department will work with the Public Utilities Commission ("PUC") to ensure that support from the High Cost Program is directed to these locations.

# Town-based approach to the Connectivity Initiative

State funding alone is insufficient to achieve Vermont's 2024 goal at this time. Therefore, the Department will develop, with advice from the Connectivity Advisory Board, a process for leveraging state investment with municipal and private investments in existing broadband networks. The Department believes that Vermont's Public Utility Commission's cable line extension rule is a proven process for rationally allocating costs between service providers and consumers. <sup>12</sup> To ensure that cable operators are able to recover the capital investment required for line extensions, the rule employs a formula to apportion capital costs between the cable provider and affected cable subscribers on a sliding scale based on subscriber density. This formula can also be used to apportion costs of broadband deployment between service providers and subscribers. In addition, to add further incentive to deployment, the subscriber portion of the capital cost can be shared by the State and regional stakeholders, and the individual subscribers. These stakeholders could include municipalities, educational institutions, healthcare service providers, electric utilities, and other organizations

Under this plan, the Department will solicit requests for broadband service from towns, neighborhoods and other private groups. The Department will work with the Vermont League of Cities and Towns, the Agency of Commerce and Community Development, and the Regional Planning Commissions to ensure

notice of this opportunity is provided to towns and that towns have an effective means to participate. The Department will identify all underserved locations through its broadband mapping system and will publish this information in the Connectivity Division annual report. Upon a formal stakeholder request, Department staff will visit the stakeholders and present broadband availability information and explain the funding process. The Department will provide a rough estimate of the cost to deploy services throughout the requested areas with an assumed take rate, using the cable line extension rule as a guide. If the petitioning stakeholder group pledges to fund some of the customer portion of the estimated capital cost, the Department will conduct a request for proposals, subject to available Connectivity Initiative funding. After receipt of a qualifying proposal, the stakeholder will be required to canvas the residents of the proposed service area and obtain signed contracts from potential customers. The final customer portion of the capital cost, as calculated under the PUC rule, will be split between the Connectivity Initiative, the stakeholder, and the individual subscribers. The Department will explore whether a process could be developed for resolving future requests for service by residents who did not participate in the initial funding of the project.

The Department will also work to reform its Request for Proposals (RFP) process. As the Department revamps its RFP process, it should provide greater weight and consideration to affordability, through the cost of equipment, price of the service and any other factor that may impact the final price of the service. Consideration should also be given to economic factors of the area receiving publicly funded resources. The Department will also ensure that clear expectations for towns and carriers is provided in the RFP.

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<sup>1</sup> 30 V.S.A. § 202(c)(10)
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<sup>&</sup>lt;sup>2</sup> 30 V.S.A § 202e(a)(1)

<sup>&</sup>lt;sup>3</sup> 30 V.S.A § 7515b(a)

<sup>4 30</sup> V.S.A § 202e(b)(6)

<sup>&</sup>lt;sup>5</sup> 30 V.S.A § 7515b(a)

<sup>6 30</sup> V.S.A § 202(e)

<sup>7 30</sup> V.S.A § 202d(g)

<sup>8 2014</sup> Vermont Telecommunications Plan, page 89

<sup>&</sup>lt;sup>9</sup> The Department believes that many potentially underserved locations have access to 4/1 Mbps service from wireless providers. However, while most wireless service providers submit coverage maps depicting service availability, only one affirmatively asserts the availability of service at 4/1 Mbps.

<sup>&</sup>lt;sup>10</sup> On August 19, 2015 FairPoint accepted the CAF II award of \$8,789,359 per year for six years from the FCC, and is required to offer services supporting 10 Mbps download speed and 1 Mbps upload speed to 28,399 supported locations within 6 years of the award. Through GIS analysis the PSD identified approximately 45,833 business and residential locations in the FairPoint service territory within the eligible census blocks.

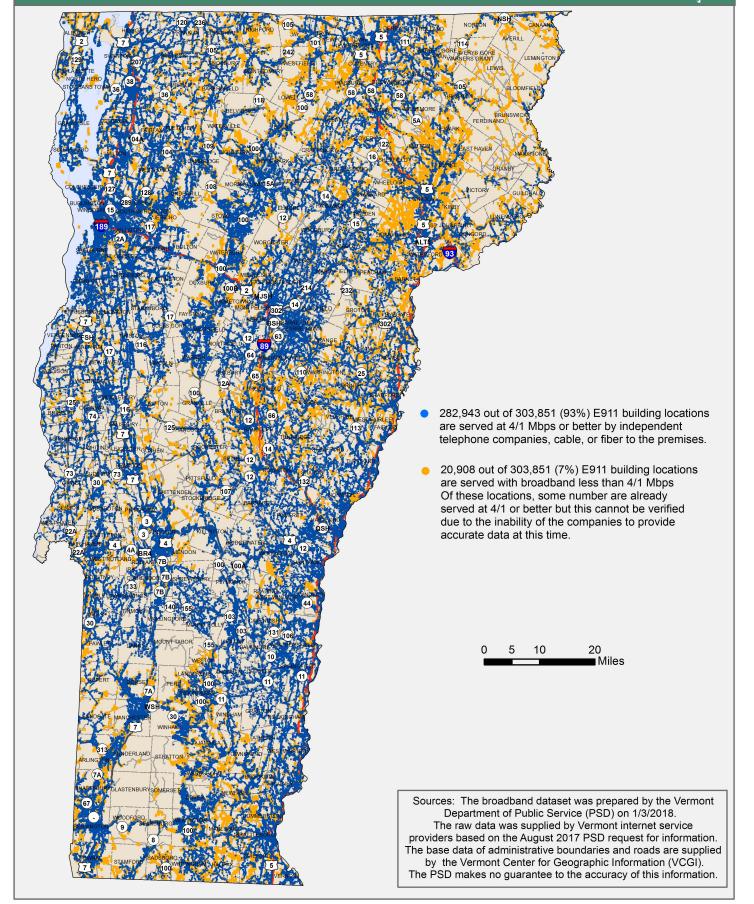
<sup>11 30</sup> V.S.A § 7516

<sup>&</sup>lt;sup>12</sup> PUC Rule 8.313

# Broadband Availability by E911 Building Location 4 Mbps Down / 1 Mbps Up or Better



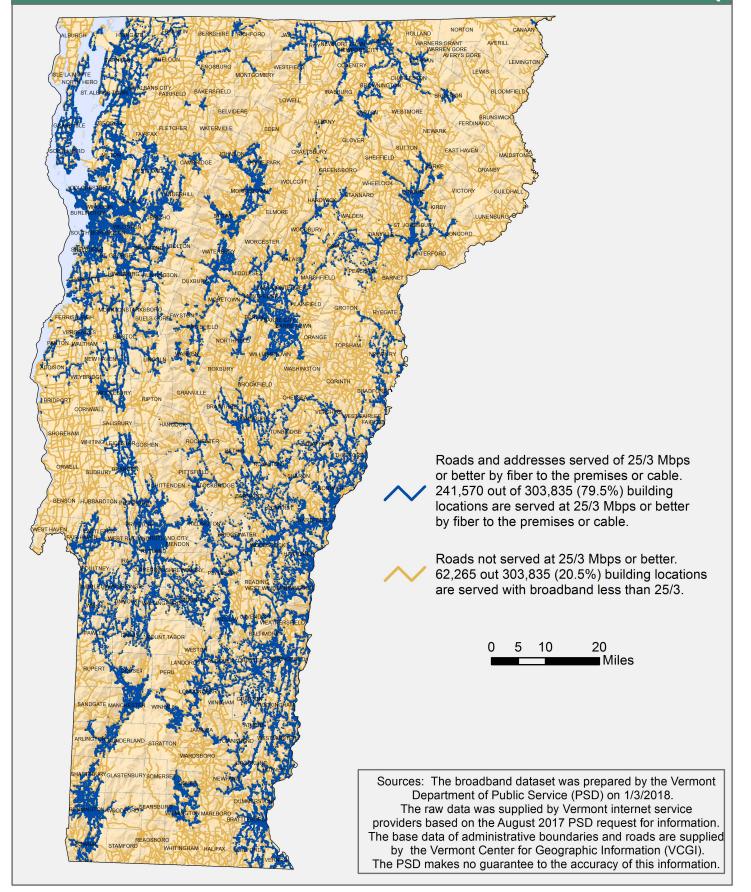
January 11, 2018



# Broadband Availability by Road Segment 25 Mbps Down / 3 Mbps Up or Better

January 11, 2018



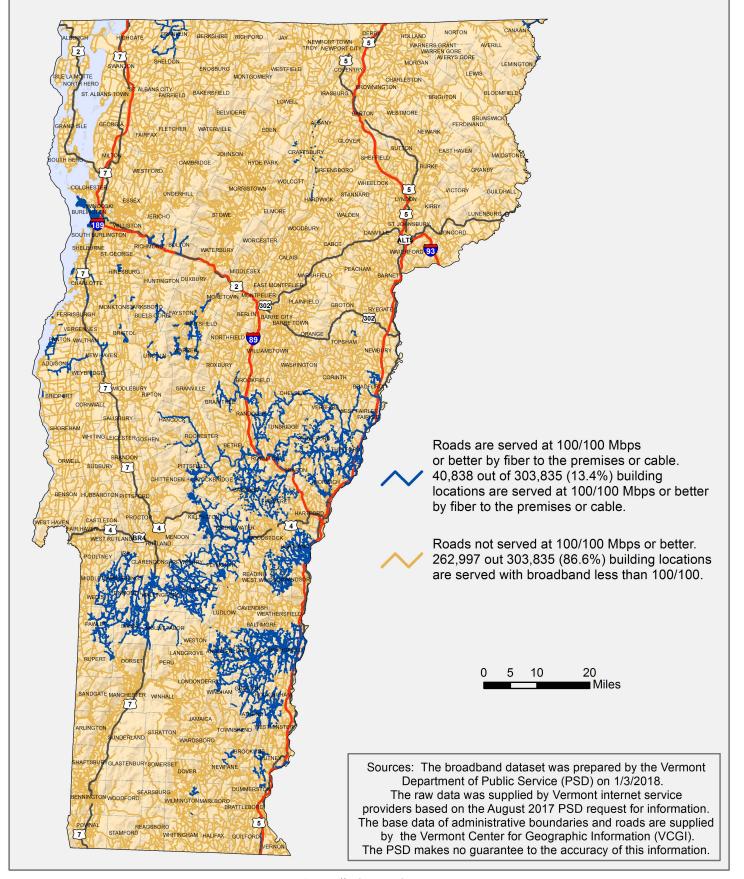


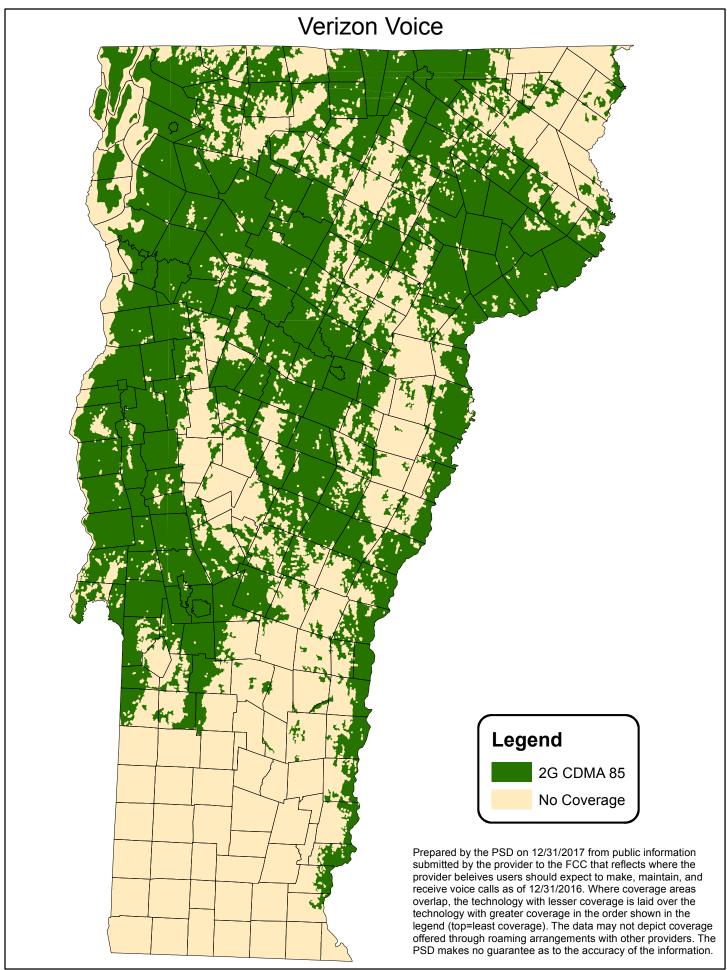
# Broadband Availability by Road Segment 100 Mbps Down / 100 Mbps Up or Better



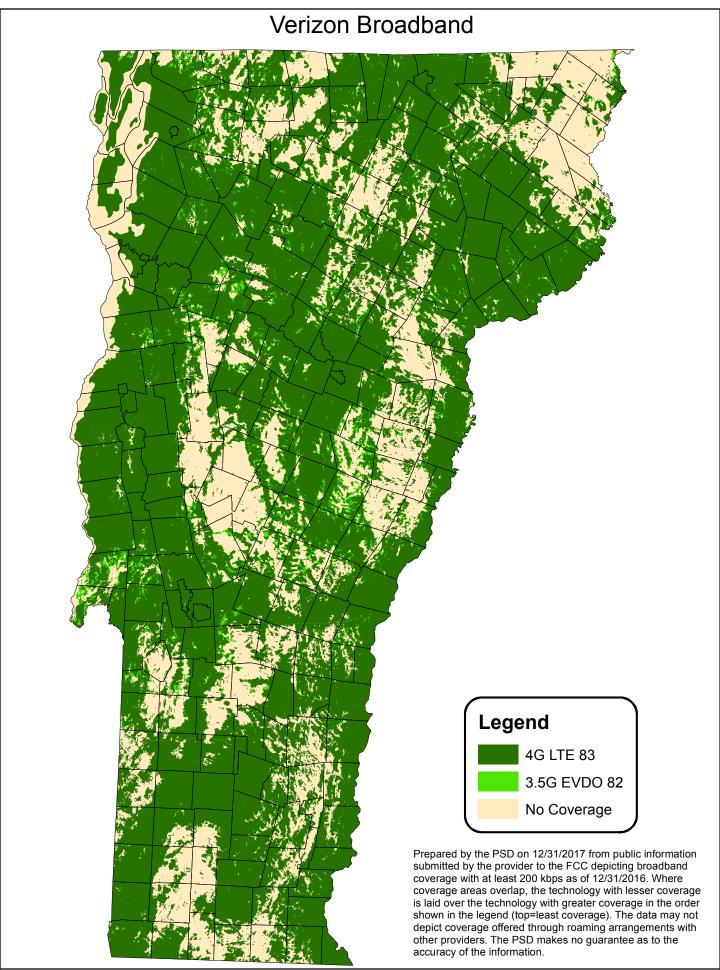
January 11, 2018



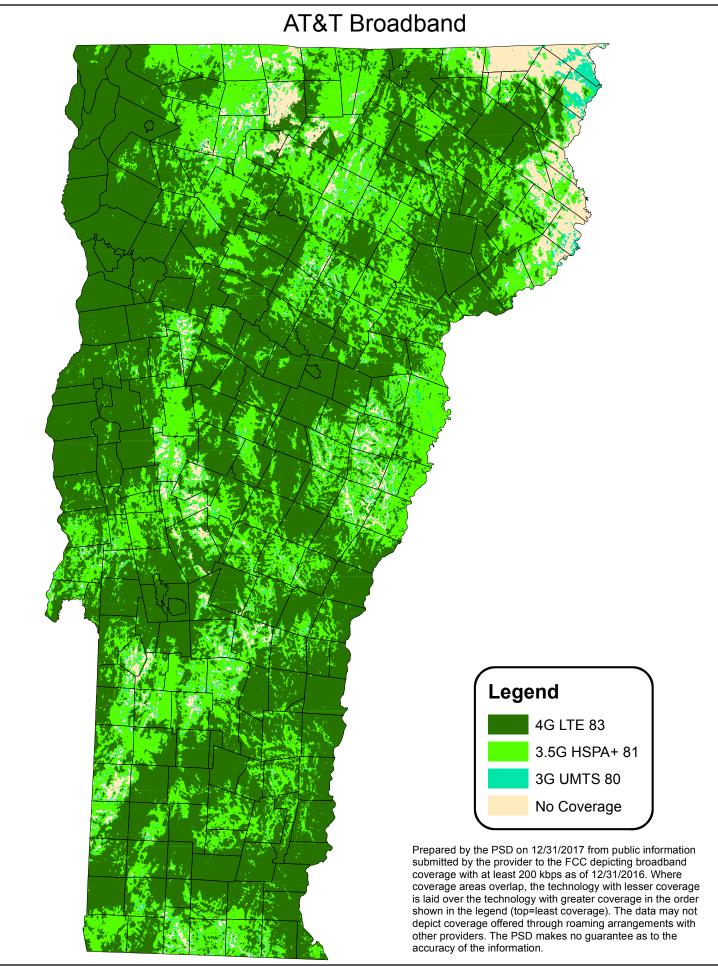


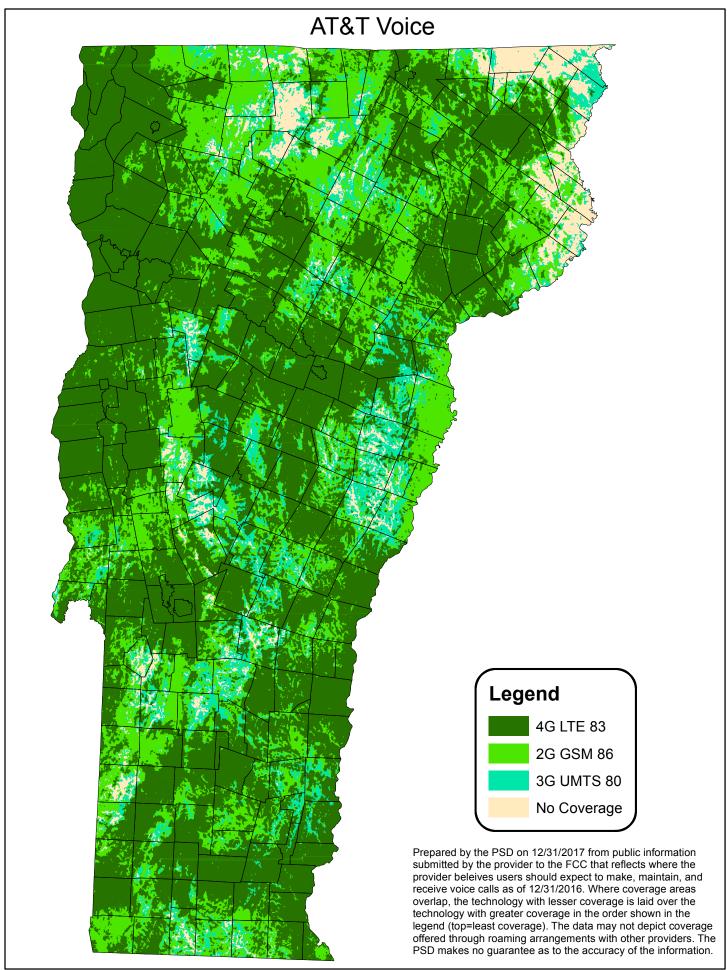


Appendix 3, Page 1

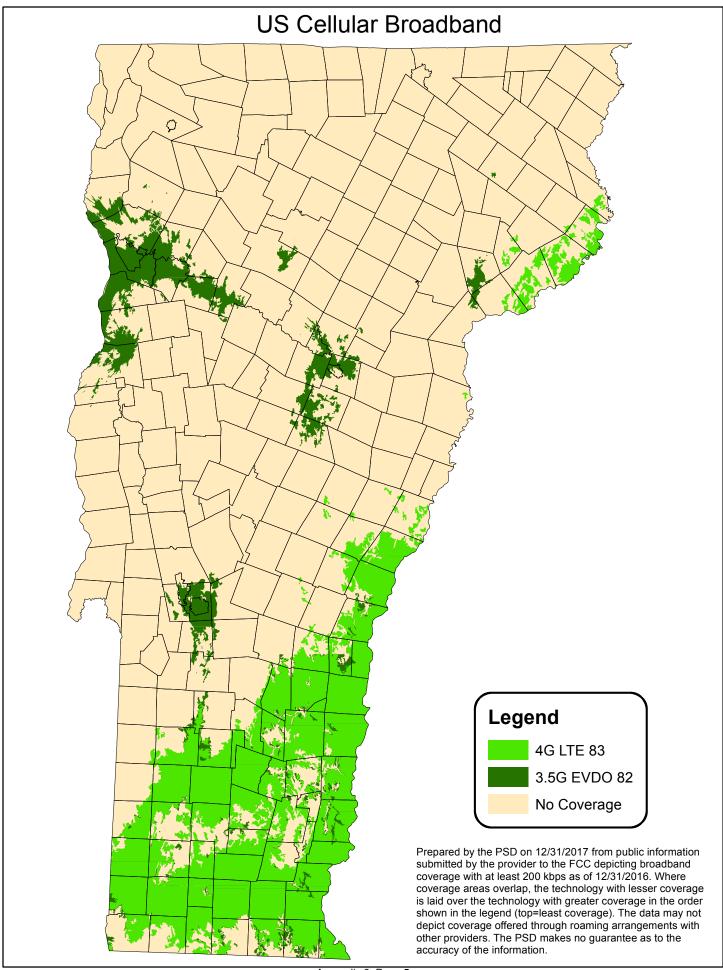


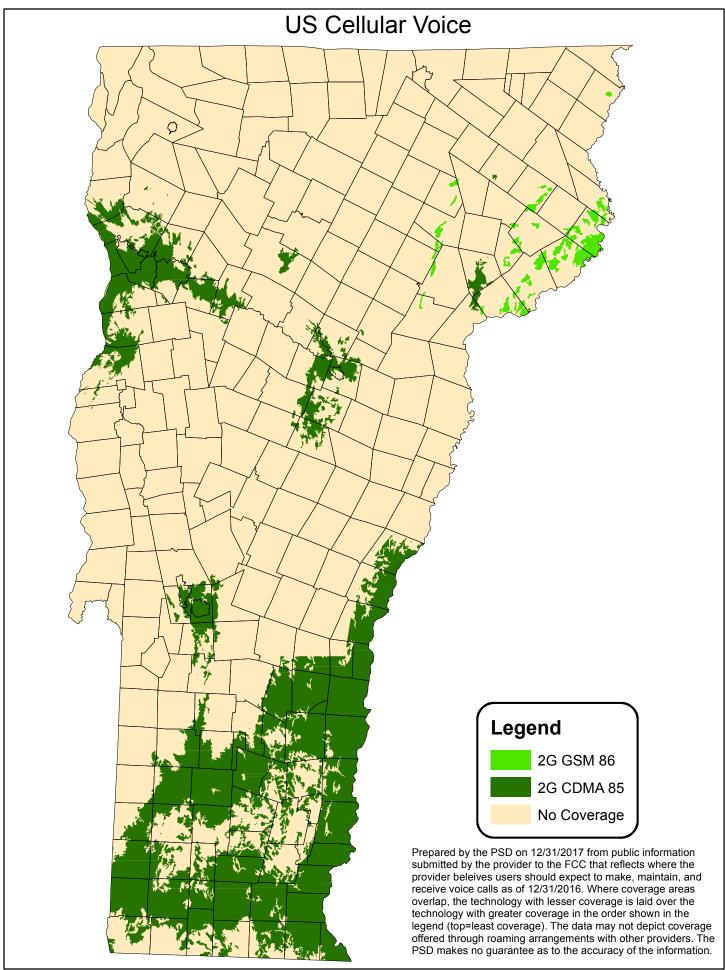
Appendix 3, Page 2

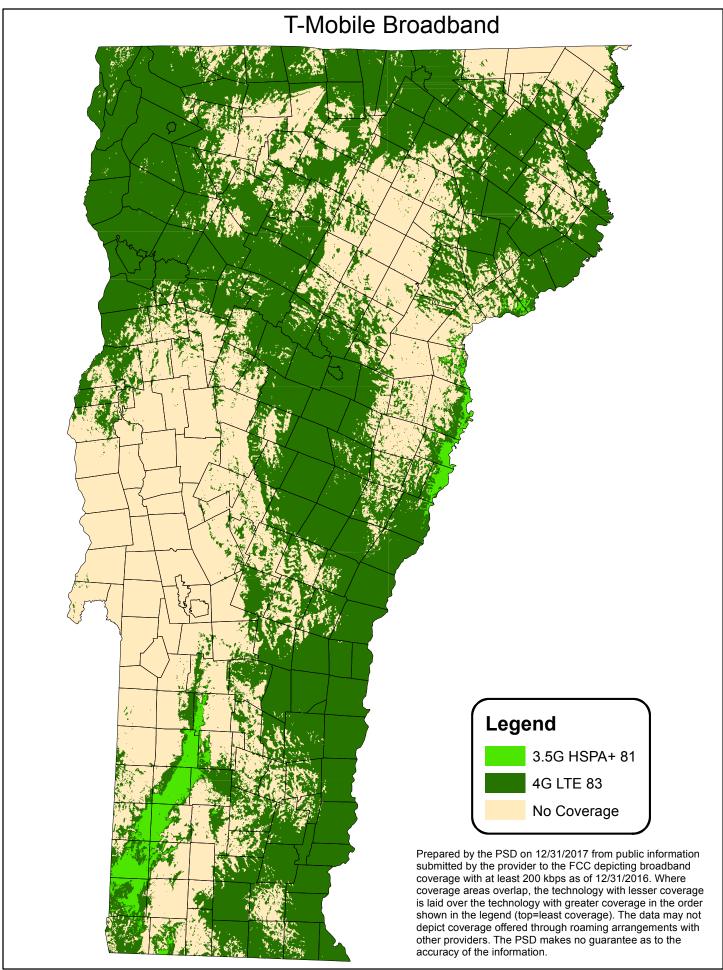




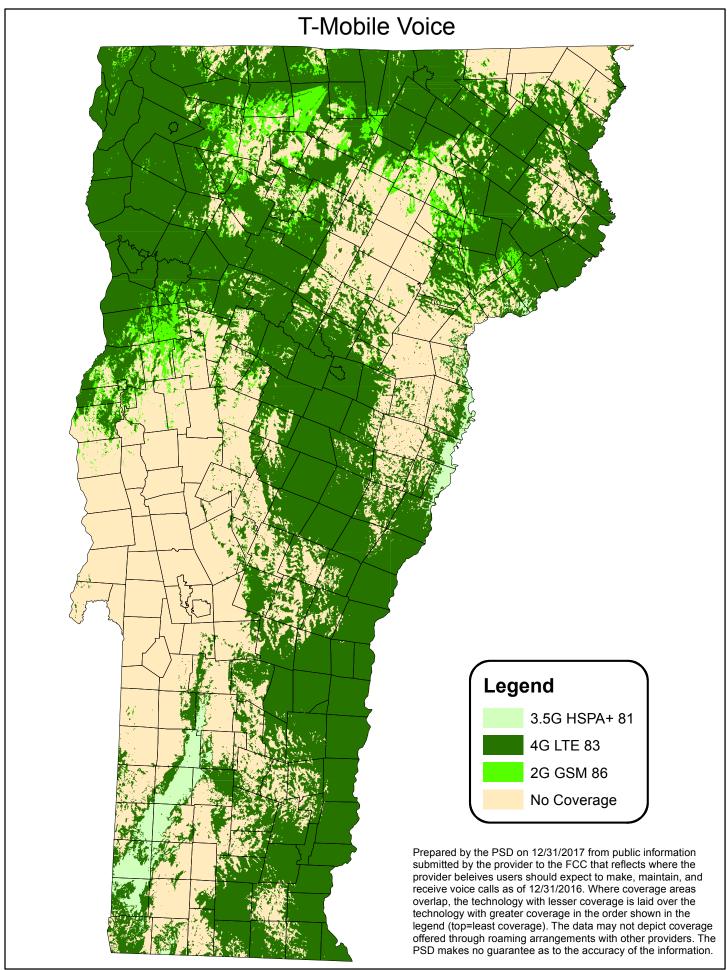
Appendix 3, Page 4



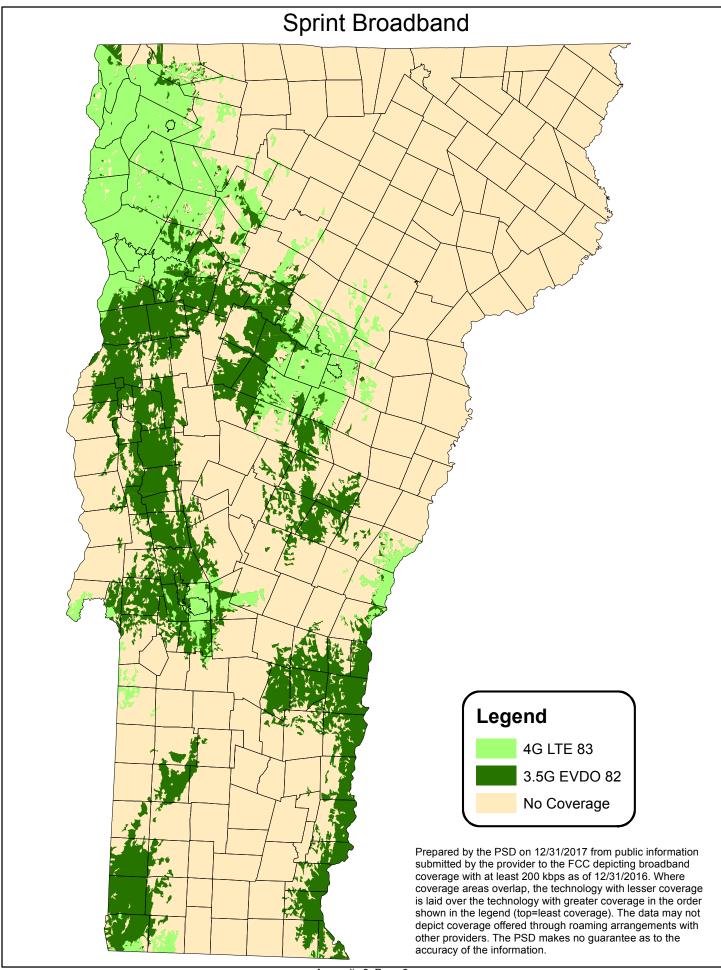


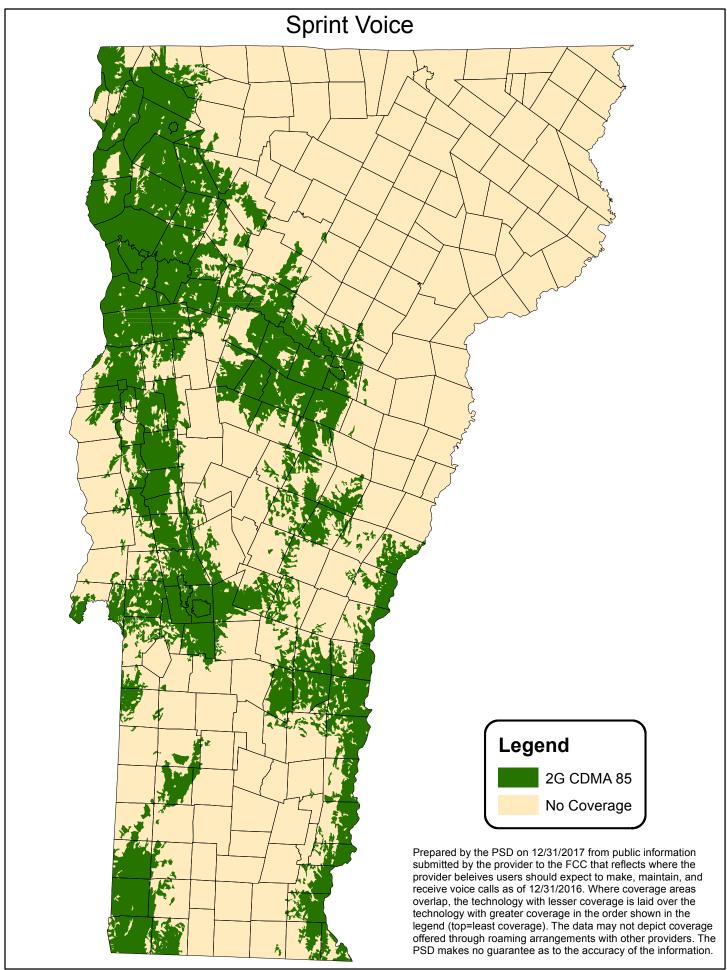


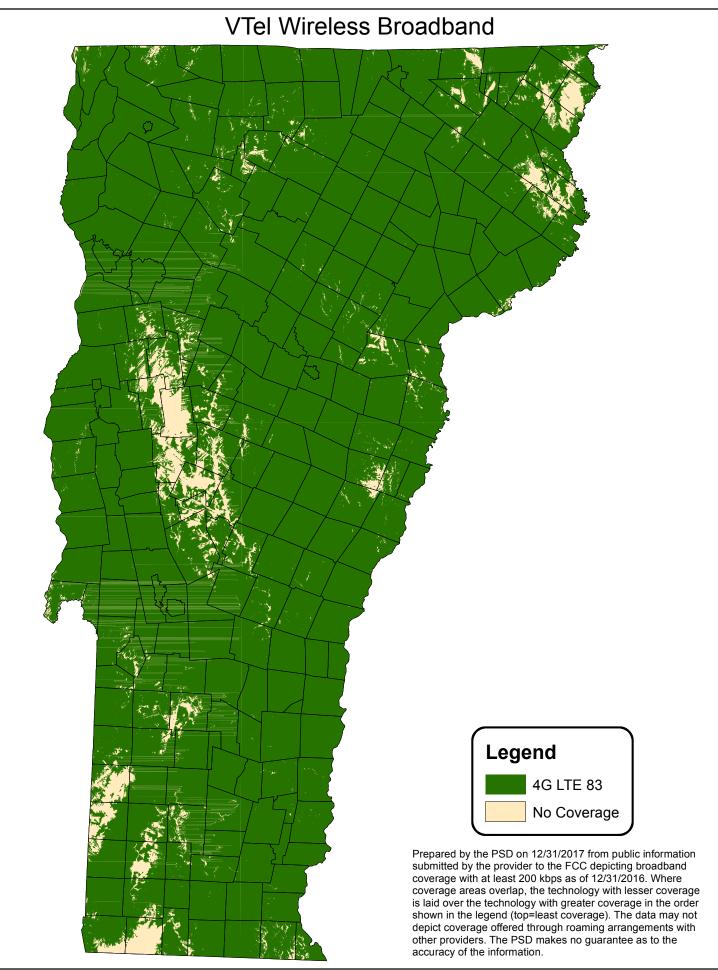
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## Broadband Statistics Summary by Town as of January 11,2018

					Served locations a	re affirmatively repo	rted as served by spe	cific providers				Underserved l	ocations are poter	ntially served at 4,	/1 by FairPoint	
County	Town	Total Buildings	Served 100/100 or Better	Percent Served 100/100 or Better	Served 25/3 or Better	Percent Served 25/3 or Better	Served 10/1 or Better	Percent Served 10/1 or Better	Served 4/1 or Better	Percent Served 4/1 or Better	Underserved	Percent Underserved	Underserved in VTEL_ARRA	Percent Underserved in VTEL ARRA	Underserved in CAFII	Percent Underserved in CAFII
ADDISON		17,661	1,418	8.0%	9,508	53.8%	10,450	59.2%	16,808	95.2%	853	4.8%	314	1.8%	262	1.5%
BENNINGTON		20,336	120	0.6%	16,403	80.7%	17,671	86.9%	19,115	94.0%	1,221	6.0%	690	3.4%	406	2.0%
CALEDONIA		15,754	. 16	0.1%	8,062	51.2%	10,249	65.1%	12,539	79.6%	3,215	20.4%	2,276	14.4%	1,673	10.6%
CHITTENDEN		56,836	11,640	20.5%	53,082	93.4%	53,408	94.0%	55,929	98.4%	907	1.6%	0	0.0%	51	0.1%
ESSEX		5,348	309	5.8%	1,163	21.7%	2,237	41.8%	3,565	66.7%	1,783	33.3%	1,639	30.6%	1,159	21.7%
FRANKLIN		22,252	535	2.4%	15,121	68.0%	17,347	78.0%	20,743	93.2%	1,509	6.8%	592	2.7%	726	3.3%
GRAND ISLE		6,168	0	0.0%	3,648	59.1%	4,534	73.5%	4,846	78.6%	1,322	21.4%	0	0.0%	705	11.4%
LAMOILLE		12,588	0	0.0%	6,238	49.6%	8,497	67.5%	11,764	93.5%	824	6.5%	550	4.4%	492	3.9%
ORANGE		15,394	4,073	26.5%	8,509	55.3%	9,984	64.9%	13,490	87.6%	1,904	12.4%	744	4.8%	951	6.2%
ORLEANS		16,350	85	0.5%	8,269	50.6%	10,389	63.5%	13,839	84.6%	2,511	15.4%	1,781	10.9%	1,147	7.0%
RUTLAND		30,585	6,640	21.7%	27,349	89.4%	27,642	90.4%	29,779	97.4%	806	2.6%	307	1.0%	183	0.6%
WASHINGTON		26,475	1,123	4.2%	18,446	69.7%	19,879	75.1%	25,507	96.3%	968	3.7%	258	1.0%	239	0.9%
WINDHAM		26,666	2,319	8.7%	19,456	73.0%	21,785	81.7%	24,498	91.9%	2,168	8.1%	1,253	4.7%	1,018	3.8%
WINDSOR		31,422	12,560	40.0%	26,786	85.2%	27,890	88.8%	30,515	97.1%	907	2.9%	593	1.9%	394	1.3%
TOTALS		303,835	40,838	13.4%	222,040	73.1%	241,962	79.6%	282,937	93.1%	20,898	6.9%	10,997	3.6%	9,406	3.1%

			Served locations are affirmatively reported as served by specific providers								Underserved locations are potentially served at 4/1 by FairPoint						
County	Town	Total Buildings	Served 100/100 or Better	Percent Served 100/100 or Better	Served 25/3 or Better	Percent Served 25/3 or Better	Served 10/1 or Better	Percent Served 10/1 or Better	Served 4/1 or Better	Percent Served 4/1 or Better	Underserved	Percent Underserved	Underserved in VTEL_ARRA	Percent Underserved in VTEL ARRA	Underserved in CAFII	Percent Underserved in CAFII	
ADDISON	Addison	835	197	23.6%	250	29.9%	250	29.9%	807	96.6%	28	3.4%	0	0.0%	S C	0.0%	
ADDISON	Bridport	656	43	6.6%	51	7.8%	51	7.8%	568	86.6%	88	13.4%	0	0.0%		0.0%	
ADDISON	Bristol	1601	429	26.8%	1,456	90.9%	1,456	90.9%	1,581	98.8%	20	1.2%	0	0.0%		0.0%	
ADDISON	Cornwall	572		0.0%	0	0.0%	0	0.0%	539		33	5.8%	19			0.0%	
ADDISON	Ferrisburgh	1659	98		814	49.1%	939		1,565		94	5.7%	0	0.0%			
ADDISON	Goshen	139	0	0.0%	0	0.0%	0	0.0%	90		49	35.3%	43		41		
ADDISON	Granville	267 240	111	0.0% 46.3%	111	0.0% 46.3%	98 172		212 213		55 27	20.6% 11.3%	54 27				
ADDISON ADDISON	Hancock Leicester	694	111	0.0%	650	93.7%	676	97.4%	680	98.0%	14	2.0%	27	0.0%		0.0%	
ADDISON	Lincoln	677	127	18.8%	394	58.2%	394	58.2%		96.5%	24	3.5%	0	0.07		0.0%	
ADDISON	Middlebury	2917	0	0.0%	2,754	94.4%	2,815	96.5%		99.4%	17	0.6%	2	11.89		0.0%	
ADDISON	Monkton	873	50		588	67.4%	641	73.4%	854	97.8%	19	2.2%	0	0.0%		5.3%	
ADDISON	New Haven	792	119		439	55.4%	439	55.4%		94.3%	45	5.7%	0	0.0%		20.0%	
ADDISON	Orwell	742	0	0.0%	0	0.0%	0	0.0%	705	95.0%	37	5.0%	33	89.2%	6	0.0%	
ADDISON	Panton	324	106	32.7%	126	38.9%	126	38.9%	308	95.1%	16	4.9%	0	0.0%	S C	0.0%	
ADDISON	Ripton	372	0	0.0%	0	0.0%	166	44.6%	285	76.6%	87	23.4%	68	78.2%	75	86.2%	
ADDISON	Salisbury	830	0	0.0%	76	9.2%	390	47.0%	759	91.4%	71	8.6%	34	47.9%	28		
ADDISON	Shoreham	737	0	0.0%	0	0.0%	0	0.0%	701	95.1%	36	4.9%	30	83.3%	S C	0.0%	
ADDISON	Starksboro	914	101	11.1%	589	64.4%	589	64.4%	891	97.5%	23	2.5%	0	0.0%	S C	0.0%	
ADDISON	Vergennes	999	0	0.0%	993	99.4%	993	99.4%	995		4	0.4%	0	0.0%		0.0%	
ADDISON	Waltham	234		0.0%	87	37.2%	125				38	16.2%	0	0.0%		0.0%	
ADDISON	Weybridge	404	37		130	32.2%	130	32.2%			21	5.2%	0	0.0%		0.0%	
ADDISON	Whiting	183	0	0.0%	0	0.0%	0	0.0%			7	3.8%	4	57.1%		0.0%	
BENNINGTON	Arlington	1291 6028	0	0.0%	1,085 5,928	84.0% 98.3%	1,152 5,934	89.2% 98.4%	1,195 5,969	92.6% 99.0%	96 59	7.4% 1.0%	14 12			1.0%	
BENNINGTON BENNINGTON	Bennington Dorset	1464	10		1,160	79.2%	1,229	83.9%			119	8.1%	12	6.7%			
BENNINGTON	Glastenbury	1404	10	0.0%	1,100	0.0%	1,229	50.0%	1,343	100.0%	0	0.0%	0	0.0%		0.0%	
BENNINGTON	Landgrove	177	0	0.0%	10	5.6%	69	39.0%	142		35	19.8%	33				
BENNINGTON	Manchester	2806	0	0.0%	2,693	96.0%	2,704	96.4%			32	1.1%	8	25.0%		15.6%	
BENNINGTON	Peru	517	0	0.0%	114	22.1%	228	44.1%	421	81.4%	96	18.6%	81			-	
BENNINGTON	Pownal	1730	0	0.0%	1,542	89.1%	1,579	91.3%	1,637	94.6%	93	5.4%	29				
BENNINGTON	Readsboro	529	0	0.0%	0	0.0%	287	54.3%	372	70.3%	157	29.7%	102	65.0%	101	64.3%	
BENNINGTON	Rupert	497	110	22.1%	110	22.1%	202	40.6%	407	81.9%	90	18.1%	74	82.2%	31	34.4%	
BENNINGTON	Sandgate	319	0	0.0%	19	6.0%	130	40.8%	259	81.2%	60	18.8%	57	95.0%	48		
BENNINGTON	Searsburg	132	0	0.0%	2	1.5%	41	31.1%	102	77.3%	30	22.7%	22	73.3%	18	60.0%	
BENNINGTON	Shaftsbury	1695		0.0%	1,303	76.9%	1,471					8.0%	109				
BENNINGTON	Stamford	470		0.0%	0	0.0%	195			85.3%		14.7%	69				
BENNINGTON	Sunderland	596		0.0%	549	92.1%	551				31	5.2%	5	16.1%		25.8%	
BENNINGTON	Winhall	1700		0.0%	1,533	90.2%	1,542				92	5.4%	56				
BENNINGTON CALEDONIA	Woodford	381 1015		0.0%	355 201	93.2% 19.8%	355 577				26 221	6.8% 21.8%	11 193			34.6%	
CALEDONIA	Barnet Burke	1015		0.0%	549	19.8% 54.7%	588				316	31.5%	250				
CALEDONIA	Danville	1421		0.0%	770	54.2%	812				446	31.4%	316				
CALEDONIA	Groton	705		0.0%	188	26.7%	572				125	17.7%	0	0.0%			
CALEDONIA	Hardwick	1426			962	67.5%	1,013				118	8.3%	63				
CALEDONIA	Kirby	274		0.0%	30	10.9%	54				171	62.4%	159				
CALEDONIA	Lyndon	2277		0.0%	1,874	82.3%	1,898				279	12.3%	171				
CALEDONIA	Newark	597	0	0.0%	0	0.0%	69		289	48.4%	308	51.6%	296	96.1%	247	80.2%	
CALEDONIA	Peacham	568	0	0.0%	292	51.4%	449	79.0%	464	81.7%	104	18.3%	38	36.5%	78	75.0%	
CALEDONIA	Ryegate	674		0.0%	245	36.4%	537	79.7%	552	81.9%	122	18.1%	10		5 44	36.1%	
CALEDONIA	Sheffield	468		0.0%	108	23.1%	197				149	31.8%	135	90.6%	102		
CALEDONIA	St. Johnsbury	2890		0.0%	2,484	86.0%	2,553				170	5.9%	107				
CALEDONIA	Stannard	141		0.0%	0	0.0%	20				45	31.9%	44				
CALEDONIA	Sutton	487		0.0%	110	22.6%	141				232	47.6%	190				
CALEDONIA	Walden	657	0	0.0%	84	12.8%	372	56.6%	593	90.3%	64	9.7%	22	34.4%	35	54.7%	

					Served locations a	re affirmatively repo	rted as served by spe	ecific providers				Underserved I	ocations are pote	ions are potentially served at 4/1 by FairPoint		
County	Town	Total Buildings	Served 100/100 or Better	Percent Served 100/100 or Better	Served 25/3 or Better	Percent Served 25/3 or Better	Served 10/1 or Better	Percent Served 10/1 or Better	Served 4/1 or Better	Percent Served 4/1 or Better	Underserved	Percent Underserved	Underserved in VTEL_ARRA	Percent Underserved in VTEL ARRA	Underserved in CAFII	Percent Underserved in CAFII
CALEDONIA	Waterford	650	0	0.0%	106	16.3%	236	36.3%	469	72.2%	181	27.8%	123	68.0%	102	56.4%
CALEDONIA	Wheelock	500	0	0.0%	59	11.8%	161	32.2%	336	67.2%	164	32.8%	159	97.0%	118	72.0%
CHITTENDEN	Bolton	497	157	31.6%	248	49.9%	251	50.5%	480		17	3.4%	0	0.0%	5	29.4%
CHITTENDEN	Buels Gore	16	13	81.3%	13	81.3%	13		14		2	12.5%	0	0.0%	0	0.0%
CHITTENDEN	Burlington	11615		91.0%	11,585	99.7%	11,585	99.7%	11,615		0	0.0%	0	0.0%	0	0.0%
CHITTENDEN	Charlotte	1858	88	4.7%	1,195	64.3%	1,198	64.5%	,	97.8%	40	2.2%	0	0.0%	0	0.0%
CHITTENDEN	Colchester	6348	0	0.0%	6,176	97.3%	6,187	97.5%	,	98.6%	89	1.4%	0	0.0%	4	4.5%
CHITTENDEN	Essex	7228	0	0.0%	7,028	97.2%	7,038	97.4%	7,153	99.0%	75	1.0%	0	0.0%	0	0.0%
CHITTENDEN	Hinesburg	1902	213	11.2%	1,358	71.4%	1,358	71.4% 70.1%	,	97.3% 98.8%	51	2.7%	0	0.0%	0	0.0%
CHITTENDEN	Huntington	892 1987	7	0.8%	625 1,812	70.1% 91.2%	625 1,816	70.1%	881 1,847	98.8%	11 140	1.2% 7.0%	0	0.0%	11	0.0% 7.9%
CHITTENDEN CHITTENDEN	Jericho Milton	4274	0	0.0%	3,849	90.1%	3,933	91.4%	4,115		159	3.7%	0	0.0%	11	5.7%
CHITTENDEN	Richmond	1718	416	24.2%	1,565	91.1%	1,565	91.1%	1,699	98.9%	19	1.1%	0	0.0%	9	0.0%
CHITTENDEN	Shelburne	3176	0	0.0%	3,043	95.8%	3,065	96.5%	3,098		78	2.5%	0	0.0%	11	14.1%
CHITTENDEN	South Burlington	6954	170	2.4%	6,829	98.2%	6,830	98.2%	6,871	98.8%	83	1.2%	0	0.0%	2	2.4%
CHITTENDEN	St. George	316	0	0.0%	291	92.1%	295	93.4%			4	1.3%	0	0.0%	0	0.0%
CHITTENDEN	Underhill	1238	0	0.0%	937	75.7%	1,056	85.3%			49	4.0%	0	0.0%	6	12.2%
CHITTENDEN	Westford	830	0	0.0%	725	87.3%	743		796		34	4.1%	0	0.0%	3	8.8%
CHITTENDEN	Williston	4251	0	0.0%	4,073	95.8%	4,117	96.8%	4,195	98.7%	56	1.3%	0	0.0%	0	0.0%
CHITTENDEN	Winooski	1736	2	0.1%	1,730	99.7%	1,733	99.8%	1,736	100.0%	0	0.0%	0	0.0%	0	0.0%
ESSEX	Averill	245	0	0.0%	0	0.0%	0	0.0%	19	7.8%	226	92.2%	226	100.0%	113	50.0%
ESSEX	Averys Gore	8	0	0.0%	0	0.0%	0	0.0%	0	0.0%	8	100.0%	8	100.0%	0	0.0%
ESSEX	Bloomfield	236	0	0.0%	0	0.0%	57	24.2%	161	68.2%	75	31.8%	74	98.7%	67	89.3%
ESSEX	Brighton	930	0	0.0%	589	63.3%	613	65.9%	748	80.4%	182	19.6%	148	81.3%	88	48.4%
ESSEX	Brunswick	76	0	0.0%	0	0.0%	7	9.2%	22	28.9%	54	71.1%	54	100.0%	52	96.3%
ESSEX	Canaan	621	279	44.9%	279	44.9%	372		454	73.1%	167	26.9%	134		109	65.3%
ESSEX	Concord	889	0	0.0%	265	29.8%	456				201	22.6%	177		84	41.8%
ESSEX	East Haven	214	0	0.0%	0	0.0%	82	38.3%		64.0%	77	36.0%	77		66	85.7%
ESSEX	Ferdinand	77	0	0.0%	0	0.0%	3	3.9%	_		64	83.1%	64		52	81.3%
ESSEX	Granby	101	0	0.0%	0	0.0%	36	35.6%	66		35	34.7%	35		24	68.6%
ESSEX	Guildhall	183	30	0.0%	30	0.0%	53 30	29.0% 33.0%	138		45	24.6%	39 37		39	86.7%
ESSEX ESSEX	Lemington Lewis	91 47	30	33.0% 0.0%	30	33.0% 0.0%	30	0.0%	54	59.3% 0.0%	37 47	40.7% 100.0%	47	100.0% 100.0%	36	97.3% 0.0%
ESSEX	Lunenburg	886	0	0.0%	0	0.0%	392	44.2%	668		218	24.6%	209		189	86.7%
ESSEX	Maidstone	360	0	0.0%	0	0.0%	71		173		187	51.9%	155		116	62.0%
ESSEX	Norton	221		0.0%	0	0.0%	52					32.6%	69			
ESSEX	Victory	102		0.0%	0	0.0%	13				31	30.4%	29		19	61.3%
ESSEX	Warners Grant	2	0	0.0%	0	0.0%	0	0.0%		0.0%	2	100.0%	2	100.0%	0	0.0%
ESSEX	Warren Gore	59	0	0.0%	0	0.0%	0	0.0%		6.8%	55	93.2%	55		48	87.3%
FRANKLIN	Bakersfield	646		0.0%	210	32.5%	308	47.7%	550	85.1%	96	14.9%	59	61.5%	63	65.6%
FRANKLIN	Berkshire	721	0	0.0%	88	12.2%	324	44.9%	597	82.8%	124	17.2%	108	87.1%	102	82.3%
FRANKLIN	Enosburg	1264		0.0%	659	52.1%	865					8.8%	74		69	
FRANKLIN	Fairfax	1730		0.0%	731	42.3%	1,117				162	9.4%	0	0.0%	60	37.0%
FRANKLIN	Fairfield	977		0.0%	88	9.0%	365				208	21.3%	166		165	79.3%
FRANKLIN	Fletcher	628		0.0%	0	0.0%	206				78	12.4%	32		51	65.4%
FRANKLIN	Franklin	923		41.3%	382	41.4%	421				24	2.6%	20		13	54.2%
FRANKLIN	Georgia	2026		0.0%	1,729	85.3%	1,825				82	4.0%	0	0.0%	6	7.3%
FRANKLIN	Highgate	1823		4.8%	1,764	96.8%	1,766			98.6%	26	1.4%	0	0.0%	0	0.0%
FRANKLIN	Montgomery	801		0.0%	227	28.3%	697	87.0%			102	12.7%	2	2.0%	69	
FRANKLIN	Richford	1051		0.0%	721	68.6%	756				148	14.1%	73		81	54.7%
FRANKLIN	Sheldon	948		7.1%	265	28.0%	378				103	10.9%	50		38	
FRANKLIN	St. Albans City	2549		0.0%	2,549	100.0%	2,549		,		0	0.0%	0	0.0%	0	0.0%
FRANKLIN	St. Albans Town	3089		0.0%	2,847	92.2%	2,899			97.5% 94.6%	78 167	2.5% 5.4%	2	2.6%		0.0%
FRANKLIN GRAND ISLE	Swanton Alburgh	3076 1817		0.0%	2,861	93.0%	2,871 490		,		167 1,025	5.4%	6	3.6% 0.0%	563	5.4% 54.9%
GRAND ISLE	Grand Isle	1817		0.0%	1,261	99.1%	1,263					0.5%	0	0.0%	503	0.0%
GRAND ISLE	Isle La Motte	567		0.0%	1,201	0.0%	386					31.9%	0	0.0%	142	78.5%
GIVAIND ISEC	isie La ivioite	507	U	0.0%	U	0.0%	380	06.1%	300	06.1%	101	31.9%	U	0.0%	142	70.5%

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County	Town	Total Buildings	Served 100/100 or Better	Percent Served 100/100 or Better	Served 25/3 or Better	Percent Served 25/3 or Better	Served 10/1 or Better	Percent Served 10/1 or Better	Served 4/1 or Better	Percent Served 4/1 or Better	Underserved	Percent Underserved	Underserved in VTEL_ARRA	Percent Underserved in VTEL ARRA	Underserved in CAFII	Percent Underserved in CAFII
GRAND ISLE	North Hero	1085	0	0.0%	1,003	92.4%	1,011	93.2%	1,013	93.4%	72	6.6%	C	0.0%	0	0.0%
GRAND ISLE	South Hero	1426	0	0.0%	1,384	97.1%	1,384	97.1%	1,389	97.4%	37	2.6%	C	0.0%	0	0.0%
LAMOILLE	Belvidere	226	0	0.0%	0	0.0%	83	36.7%	215		11	4.9%	11		9	81.8%
LAMOILLE	Cambridge	1672	0	0.0%	577	34.5%	878	52.5%	1,542	92.2%	130	7.8%	90			
LAMOILLE	Eden	821	0	0.0%	0	0.0%	323		613	74.7%	208	25.3%	177			
LAMOILLE LAMOILLE	Elmore Hyde Park	552 1382	0	0.0%	1,002	0.0% 72.5%	248	44.9% 81.3%	471 1,327	85.3% 96.0%	81 55	14.7% 4.0%	72 18			
LAMOILLE	Johnson	1289	0	0.0%	917	72.5%	1,124 965		1,327	87.7%	159	12.3%	100			+
LAMOILLE	Morristown	2394	0	0.0%	1,862	77.8%	1,972	82.4%	2,339	97.7%	55	2.3%	17			
LAMOILLE	Stowe	3078	0	0.0%	1,880	61.1%	2,364	76.8%	3,028	98.4%	50	1.6%	15		35	+
LAMOILLE	Waterville	336	0	0.0%	0	0.0%	182	54.2%	313	93.2%	23	6.8%	11	47.8%	17	
LAMOILLE	Wolcott	838	0	0.0%	0	0.0%	358	42.7%	786	93.8%	52	6.2%	39	75.0%	28	53.8%
ORANGE	Bradford	1265	281	22.2%	886	70.0%	957	75.7%	1,193	94.3%	72	5.7%	0	0.0%	21	
ORANGE	Braintree	677	198	29.2%	491	72.5%	535		604	89.2%	73	10.8%	32			L
ORANGE	Brookfield	715	46	6.4%	49	6.9%	182	25.5%	415		300	42.0%	273			
ORANGE	Chelsea	729	185	25.4%	304	41.7%	416	57.1%	575	78.9%	154	21.1%	118			
ORANGE	Corinth	924 669	0 476	0.0%	477	0.0%	538	0.1% 80.4%	753 606	81.5% 90.6%	171 63	18.5%	0	0.0%		+
ORANGE ORANGE	Fairlee Newbury	1367	12	71.2%	804	71.3% 58.8%	1,001	73.2%	1,157	84.6%	210	9.4% 15.4%	0	0.0%		
ORANGE	Orange	550	0	0.0%	40	7.3%	208	37.8%	470	85.5%	80	14.5%	21			
ORANGE	Randolph	2021	330	16.3%	1,785	88.3%	1,798	89.0%	1,858	91.9%	163	8.1%	99			
ORANGE	Strafford	630	609	96.7%	609	96.7%	609	96.7%	612	97.1%	18	2.9%	16			
ORANGE	Thetford	1384	1,340	96.8%	1,355	97.9%	1,357	98.0%	1,357	98.0%	27	2.0%	8	29.6%	10	37.0%
ORANGE	Topsham	741	6	0.8%	6	0.8%	32	4.3%	632	85.3%	109	14.7%	0	0.0%	20	
ORANGE	Tunbridge	768	192	25.0%	270	35.2%	404	52.6%	620	80.7%	148	19.3%	140	94.6%	58	
ORANGE	Vershire	460	290	63.0%	290	63.0%	348		415		45	9.8%	C	0.0%		
ORANGE	Washington	616	0	0.0%	198	32.1%	266		517	83.9%	99	16.1%	0	0.0%		
ORANGE ORANGE	West Fairlee Williamstown	422 1456	108	25.6% 0.0%	108 837	25.6% 57.5%	254 1,078	60.2% 74.0%	347 1,359	82.2% 93.3%	75 97	17.8% 6.7%	37	0.0%		+
ORLEANS	Albany	615	20	3.3%	20	3.3%	285	46.3%	534	86.8%	81	13.2%	76			
ORLEANS	Barton	1478	0	0.0%	931	63.0%	991	67.1%	1,297	87.8%	181	12.2%	135			
ORLEANS	Brownington	558	0	0.0%	323	57.9%	438	78.5%	500	89.6%	58	10.4%	25			3.4%
ORLEANS	Charleston	768	0	0.0%	460	59.9%	506	65.9%	637	82.9%	131	17.1%	98	74.8%	24	
ORLEANS	Coventry	531	0	0.0%	242	45.6%	289	54.4%	376	70.8%	155	29.2%	86	55.5%	72	
ORLEANS	Craftsbury	720	58	8.1%	58	8.1%	214	29.7%	621	86.3%	99	13.8%	38	38.4%	66	66.7%
ORLEANS	Derby	2473		0.0%	1,908	77.2%	2,057					8.6%	114			
ORLEANS	Glover	806		0.0%	119	14.8%	371					18.7%	141			
ORLEANS ORLEANS	Greensboro Holland	824 458		0.8%	82	10.0% 1.1%	355 133		764 338		60 120	7.3% 26.2%	30 115			
ORLEANS	Irasburg	628		0.0%	178	28.3%	246				226	36.0%	200			
ORLEANS	Jay	538	0	0.0%	341	63.4%	341		355		183	34.0%	13	1		1.6%
ORLEANS	Lowell	556	0	0.0%	0	0.0%	181				241	43.3%	237			
ORLEANS	Morgan	809	0	0.0%	533	65.9%	583	72.1%	702	86.8%	107	13.2%	97	90.7%	22	20.6%
ORLEANS	Newport City	1879	0	0.0%	1,858	98.9%	1,860	99.0%		99.5%	9	0.5%	4	44.4%	1	11.1%
ORLEANS	Newport Town	865	0	0.0%	408	47.2%	481				116	13.4%	77			
ORLEANS	Troy	879		0.0%	682	77.6%	711				100	11.4%	55			
ORLEANS	Westfield	375	0	0.0%	121	32.3%	182				157	41.9%	124			
ORLEANS	Westmore	590	0	0.0%	0	0.0%	165	28.0% 0.0%		79.2% 83.7%	123	20.8% 16.3%	116 93			
RUTLAND RUTLAND	Benson Brandon	607 1850	0	0.0%	1,609	0.0% 87.0%	1,671				99 70	3.8%	16			0.0%
RUTLAND	Castleton	2212	0	0.0%	2,032	91.9%	2,073					1.7%	10	7.9%		
RUTLAND	Chittenden	718		0.1%	598	83.3%	606				73	10.2%	25			5.5%
RUTLAND	Clarendon	1203	17	1.4%	1,150	95.6%	1,152		1,155		48	4.0%	3	6.3%		8.3%
RUTLAND	Danby	770			769	99.9%	769				0	0.0%	0	0.0%		0.0%
RUTLAND	Fair Haven	1143	0	0.0%	1,050	91.9%	1,065				27	2.4%	9	33.3%		18.5%
RUTLAND	Hubbardton	645	0	0.0%	66	10.2%	66	10.2%	618		27	4.2%	19	70.4%	0	0.0%
RUTLAND	Ira	223	155	69.5%	208	93.3%	208	93.3%	210	94.2%	13	5.8%	2	15.4%	9	69.2%

					Served locations a	re affirmatively repo	rted as served by spe	ecific providers				Underserved I	ocations are pote	ntially served at 4		
County	Town	Total Buildings	Served 100/100 or Better	Percent Served 100/100 or Better	Served 25/3 or Better	Percent Served 25/3 or Better	Served 10/1 or Better	Percent Served 10/1 or Better	Served 4/1 or Better	Percent Served 4/1 or Better	Underserved	Percent Underserved	Underserved in VTEL_ARRA	Percent Underserved in VTEL ARRA	Underserved in CAFII	Percent Underserved in CAFII
RUTLAND	Killington	1362	1,117	82.0%	1,352	99.3%	1,356	99.6%	1,360	99.9%	2	0.1%	2	100.0%	0	0.0%
RUTLAND	Mendon	643	2	0.3%	568	88.3%	575	89.4%	589	91.6%	54	8.4%	13	24.1%	14	25.9%
RUTLAND	Middletown Springs	448	446	99.6%	446	99.6%	446	99.6%	446	99.6%	2	0.4%	0	0.0%	0	0.0%
RUTLAND	Mount Holly	1102	1,085	98.5%	1,086	98.5%	1,086	98.5%	1,101	99.9%	1	0.1%	0	0.0%	0	0.0%
RUTLAND	Mount Tabor	141	141	100.0%	141	100.0%	141	100.0%	141	100.0%	0	0.0%	0	0.0%	0	0.0%
RUTLAND	Pawlet	834	482	57.8%	727	87.2%	727	87.2%		90.3%	81	9.7%	30		44	0
RUTLAND	Pittsfield	409 1412	393	96.1%	393 1,247	96.1% 88.3%	394 1,255	96.3% 88.9%	397	97.1% 93.3%	12 94	2.9% 6.7%	6	50.0%	10 37	83.3% 39.4%
RUTLAND RUTLAND	Pittsford Poultney	1693	3	0.0%	1,247	85.2%	1,255	88.9% 88.2%	1,318 1,609	95.0%	84	5.0%	<u>U</u>		24	
RUTLAND	Proctor	769	0	0.0%	758	98.6%	759	98.7%	760	98.8%	9	1.2%	0	0.0%	1	11.1%
RUTLAND	Rutland	1828	0	0.0%	1,791	98.0%	1,791	98.0%	1,826	99.9%	2	0.1%	0	0.0%	0	0.0%
RUTLAND	Rutland City	6103	0	0.0%	6,103	100.0%	6,103	100.0%	6,103	100.0%	0	0.0%	0	0.0%	0	0.0%
RUTLAND	Shrewsbury	605	434	71.7%	579	95.7%	585	96.7%	595	98.3%	10	1.7%	6	60.0%	0	0.0%
RUTLAND	Sudbury	429	0	0.0%	0	0.0%	1	0.2%	415	96.7%	14	3.3%	14	100.0%	11	
RUTLAND	Tinmouth	361	361	100.0%	361	100.0%	361	100.0%	361	100.0%	0	0.0%	0	0.0%	0	0.0%
RUTLAND	Wallingford	1029	1,029	100.0%	1,029	100.0%	1,029	100.0%	1,029	100.0%	0	0.0%	0	0.0%	0	0.0%
RUTLAND	Wells	961	205	21.3%	928	96.6%	929		939	97.7%	22	2.3%	2	9.1%	0	0.0%
RUTLAND	West Haven	136	0	0.0%	916	0.0%	82	60.3% 96.8%	132	97.1% 97.9%	20	2.9%	4	100.0%	1	. 25.0% ! 10.0%
RUTLAND WASHINGTON	West Rutland Barre City	949 2905	0	0.0%	2,869	96.5% 98.8%	919 2,875	99.8%	929 2,905		20	2.1% 0.0%	10	50.0%	2	0.0%
WASHINGTON	Barre Town	3349	0	0.0%	3,178	94.9%	3,245	96.9%	3,346	99.9%	3	0.1%	0	0.0%	0	0.0%
WASHINGTON	Berlin	1378	0	0.0%	1,083	78.6%	1,105	80.2%	,	97.5%	34	2.5%	13		12	
WASHINGTON	Cabot	855	0	0.0%	471	55.1%	691	80.8%	,	89.6%	89	10.4%	17		30	
WASHINGTON	Calais	878	0	0.0%	314	35.8%	521	59.3%	853	97.2%	25	2.8%	6	24.0%	9	36.0%
WASHINGTON	Duxbury	664	0	0.0%	312	47.0%	463	69.7%	554	83.4%	110	16.6%	0	0.0%	14	
WASHINGTON	East Montpelier	1162	0	0.0%	783	67.4%	918		1,148	98.8%	14	1.2%	9	64.3%	4	28.6%
WASHINGTON	Fayston	967	101	10.4%	201	20.8%	201			98.3%	16	1.7%	0	0.0%	0	0.0%
WASHINGTON	Marshfield	761	0	0.0%	287	37.7%	575	75.6%		97.2%	21	2.8%	18		13	
WASHINGTON	Middlesex	837	0	0.0%	429	51.3%	503	60.1%	688	82.2%	149	17.8% 0.0%	77		72	48.3% 0.0%
WASHINGTON WASHINGTON	Montpelier Moretown	2839 822	49	0.0% 6.0%	2,823 416	99.4% 50.6%	2,825 419	99.5% 51.0%	2,839 716	100.0% 87.1%	106	12.9%	0	0.0%	35	
WASHINGTON	Northfield	1923	0	0.0%	1,380	71.8%	1,380	71.8%	1,914	99.5%	9	0.5%	3	33.3%	2	22.2%
WASHINGTON	Plainfield	579	0	0.0%	243	42.0%	362	62.5%	564	97.4%	15	2.6%	5	33.3%	0	0.0%
WASHINGTON	Roxbury	498	0	0.0%	0	0.0%	0	0.0%	470	94.4%	28	5.6%	11	39.3%	15	
WASHINGTON	Waitsfield	1027	463	45.1%	500	48.7%	500		1,003	97.7%	24	2.3%	0	0.0%	0	0.0%
WASHINGTON	Warren	1528	510	33.4%	564	36.9%	564	36.9%		97.6%	37	2.4%	0	0.0%	0	0.0%
WASHINGTON	Waterbury	2269	0	0.0%	2,031	89.5%	2,048			92.2%	178	7.8%	31		13	
WASHINGTON	Woodbury	769	0	0.0%	352	45.8%	442				35	4.6%	31		17	
WASHINGTON	Worcester	465	0 258	0.0%	210 258	45.2%	242 258			83.9% 100.0%	75 0	16.1% 0.0%	37		3	4.0% 0.0%
WINDHAM WINDHAM	Athens Brattleboro	258 4671	258	100.0%	4,475	100.0% 95.8%	4,536			99.3%	32	0.0%	0	0.0% 25.0%	0	9.4%
WINDHAM	Brookline	310	0	0.0%	292	94.2%	4,536			95.8%	13	4.2%	7	53.8%	1	7.7%
WINDHAM	Dover	2053	0	0.0%	1,667	81.2%	1,851				27	1.3%	13		18	
WINDHAM	Dummerston	960	105	10.9%	667	69.5%	741				160	16.7%	50		48	
WINDHAM	Grafton	556	556	100.0%	556	100.0%	556				0	0.0%	0	0.0%	0	0.0%
WINDHAM	Guilford	1158	0	0.0%	862	74.4%	918	79.3%	1,015	87.7%	143	12.3%	0	0.0%	7	4.9%
WINDHAM	Halifax	607	0	0.0%	0	0.0%	158			55.8%	268	44.2%	259		251	
WINDHAM	Jamaica	1094	0	0.0%	682	62.3%	809			87.9%	132	12.1%	112		30	
WINDHAM	Londonderry	1404	2	0.1%	1,143	81.4%	1,161	82.7%		90.7%	131	9.3%	74		12	
WINDHAM	Marlboro	611	0 80	0.0%	785	0.2%	224			71.5%	174	28.5%	124		112	
WINDHAM WINDHAM	Newfane Putney	1099 1143	80 164	7.3% 14.3%	/85 821	71.4% 71.8%	848 887	77.2% 77.6%		85.9% 94.5%	155 63	14.1% 5.5%	57 17	36.8% 27.0%	31 22	
WINDHAM	Rockingham	2173	619	28.5%	2,108	97.0%	2,114	97.3%	,	98.2%	40	1.8%	15		1	2.5%
WINDHAM	Somerset	2173		0.0%	2,108	0.0%	2,114	0.0%		0.0%	26	100.0%	26		25	
WINDHAM	Stratton	628	0	0.0%	367	58.4%	410			82.3%	111	17.7%	62		57	
WINDHAM	Townshend	807	28		496	61.5%	567				122	15.1%	98		69	
WINDHAM	Vernon	876	0	0.0%	804	91.8%	814				27	3.1%	0	0.0%	3	11.1%

			Served locations are affirmatively reported as served by specific providers								Underserved locations are potentially served at 4/1 by FairPoint					
County	Town	Total Buildings	Served 100/100 or Better	Percent Served 100/100 or Better	Served 25/3 or Better	Percent Served 25/3 or Better	Served 10/1 or Better	Percent Served 10/1 or Better	Served 4/1 or Better	Percent Served 4/1 or Better	Underserved	Percent Underserved	Underserved in VTEL_ARRA	Percent Underserved in VTEL ARRA	Underserved in CAFII	Percent Underserved in CAFII
WINDHAM	Wardsboro	866	0	0.0%	0	0.0%	374	43.2%	707	81.6%	159	18.4%	143	89.9%	117	73.6%
WINDHAM	Westminster	1612	181	11.2%	1,411	87.5%	1,458	90.4%	1,558	96.7%	54	3.3%	16	29.6%	3	5.6%
WINDHAM	Whitingham	949	0	0.0%	0	0.0%	497	52.4%	786	82.8%	163	17.2%	108	66.3%	114	69.9%
WINDHAM	Wilmington	2361	104	4.4%	1,838	77.8%	1,932	81.8%	2,218	93.9%	143	6.1%	43	30.1%	73	51.0%
WINDHAM	Windham	444	222	50.0%	223	50.2%	377	84.9%	419	94.4%	25	5.6%	21	84.0%	21	84.0%
WINDSOR	Andover	464	463	99.8%	463	99.8%	463	99.8%	463	99.8%	1	0.2%	0	0.0%	0	0.0%
WINDSOR	Baltimore	110	0	0.0%	0	0.0%	0	0.0%	108	98.2%	2	1.8%	0	0.0%	0	0.0%
WINDSOR	Barnard	756	708	93.7%	708	93.7%	737	97.5%	745	98.5%	11	1.5%	10	90.9%	10	90.9%
WINDSOR	Bethel	1024	312	30.5%	675	65.9%	807	78.8%	899	87.8%	125	12.2%	99	79.2%	59	
WINDSOR	Bridgewater	641	592	92.4%	592	92.4%	602	93.9%	635	99.1%	6	0.9%	5	83.3%	5	83.3%
WINDSOR	Cavendish	958	0	0.0%	726	75.8%	726	75.8%	932	97.3%	26	2.7%	18	69.2%	15	57.7%
WINDSOR	Chester	1754	1,751	99.8%	1,752	99.9%	1,752	99.9%	1,754	100.0%	0	0.0%	0	0.0%	0	0.0%
WINDSOR	Hartford	4800	4	0.1%	4,511	94.0%	4,611	96.1%	4,784	99.7%	16	0.3%	10	62.5%	9	56.3%
WINDSOR	Hartland	1575	1,138	72.3%	1,532	97.3%	1,539	97.7%	1,562	99.2%	13	0.8%	12	92.3%	8	61.5%
WINDSOR	Ludlow	2416	0	0.0%	2,141	88.6%	2,141	88.6%	2,412	99.8%	4	0.2%	0	0.0%	0	0.0%
WINDSOR	Norwich	1530	640	41.8%	1,377	90.0%	1,405	91.8%	1,449	94.7%	81	5.3%	75	92.6%	14	17.3%
WINDSOR	Plymouth	834		74.1%	731	87.6%	731	87.6%	833	99.9%	1	0.1%	0	0.0%	0	0.0%
WINDSOR	Pomfret	566	492	86.9%	494	87.3%	537	94.9%	559	98.8%	7	1.2%	6	85.7%	4	57.1%
WINDSOR	Reading	513	56	10.9%	240	46.8%	297	57.9%	416	81.1%	97	18.9%	78	80.4%	73	75.3%
WINDSOR	Rochester	831	131	15.8%	422	50.8%	511	61.5%	744	89.5%	87	10.5%	54	62.1%	43	49.4%
WINDSOR	Royalton	1310	562	42.9%	808	61.7%	950	72.5%	1,213	92.6%	97	7.4%	59	60.8%	22	22.7%
WINDSOR	Sharon	746	229	30.7%	235	31.5%	391	52.4%	682	91.4%	64	8.6%	52	81.3%	36	56.3%
WINDSOR	Springfield	3764	3,757	99.8%	3,763	100.0%	3,763	100.0%	3,764	100.0%	0	0.0%	0	0.0%	0	0.0%
WINDSOR	Stockbridge	586	136	23.2%	136	23.2%	313	53.4%	529	90.3%	57	9.7%	49	86.0%	47	82.5%
WINDSOR	Weathersfield	1544	86	5.6%	1,242	80.4%	1,257	81.4%	1,520	98.4%	24	1.6%	21	87.5%	10	41.7%
WINDSOR	West Windsor	736	715	97.1%	716	97.3%	720	97.8%	728	98.9%	8	1.1%	4	50.0%	2	25.0%
WINDSOR	Weston	611	0	0.0%	504	82.5%	511	83.6%	541	88.5%	70	11.5%	23	32.9%	13	18.6%
WINDSOR	Windsor	1466	5	0.3%	1,407	96.0%	1,407	96.0%	1,413	96.4%	53	3.6%	0	0.0%	8	15.1%
WINDSOR	Woodstock	1887	165	8.7%	1,611	85.4%	1,719	91.1%	1,830	97.0%	57	3.0%	18	31.6%	16	28.1%
TOTALS		303,835	40,838	13.4%	222,040	73.1%	241,962	79.6%	282,937	93.1%	20,898	6.9%	10,997	3.6%	9,406	3.1%