Comments on Amendment to H.117 proposed by Sen's MacDonald and Mullin
Irv Thomae, Chair, ECFiber
Apr. 28, 2015

For the record, my name is Irv Thomae. I have been a Norwich resident since 1975, and currently serve on ECFiber's volunteer Governing Board both as the delegate from Norwich and Chair.

ECFiber strongly supports the "MacDonald-Mullin amendment", large parts of which were originally drafted at our request. To understand why, please bear with me for a quick summary of who and where we are.

ECFiber (formally, "East Central Vermont Community-Owned Fiber-Optic Network") is a non-profit consortium of 24 municipalities, formed just a few months before the financial collapse of September 2008. As you know, by law Vermont towns can own and operate telecomm networks for public use, but cannot fund them from local taxes. After some initial setbacks, in late 2010 we decided to build a small proof-of-concept network. We were able to borrow about $900,000 from private sources, with which we built a central hub and 25 miles of fiber-optic cable, and started connecting customers. Since then, by regularizing a process of promissory-note financing, we have raised another five and a half million dollars, from over four hundred people, mostly local, and chiefly in small multiples of $2500. And we continued to build. We now offer full-speed broadband along 200 road-miles of cable, including 38 road-miles of leased strands within the VTA's Orange County Fiber Connector. We now offer full-speed broadband along 200 road-miles of network, with over 1000 customers connected, in parts of 12 towns. The revenue from user fees now covers all operating and debt service costs.

We expect to add another 100 miles of network during 2015, which will include leased strands within about 80 additional miles of dark fiber infrastructure now being completed by the VTA. (Incidentally, ECFiber investors have contributed $200,000 toward that project.) However, even 300 miles will be only about 20% of all the road mileage in our territory. To finish the job more rapidly, and to allow similar groups of municipalities in other parts of the state to benefit from our experience, we are asking for some non-monetary help from the Legislature.

The first item ("Section 1") is a matter of organizational structure. ECFiber is currently organized under Vermont law as an "Interlocal Contract," but institutional investors are much more familiar with Municipal Utility Districts. Now that we have proven our business model and reached adequate size for serious discussions with larger-scale investors, that difference has become quite important. Language in the proposed amendment (based on wording drafted last fall by Paul Giuliani) authorizes

formation of Telecommunications Union Districts, closely resembling to MUD's, with the very important exception that they cannot levy local taxes. (See enclosed chart.) We strongly support this proposal.

Second: the framework established by Section 1 can, by design, be used by groups of municipalities anywhere in the State. When I testified to Senate Economic Development last week, I was unaware that if and when that general framework becomes law, ECFiber will also need a very short piece of specific language in order to form such a Union District immediately. I therefore respectfully request that the following paragraph be added to the Amendment before you:

SECTION 'X'. General Assembly Approves Formation of the ECFiber Municipal Telecom District

The General Assembly hereby ratifies the creation of a union municipal telecom district whose charter shall be the "Agreement for the Formation of the East Central Vermont Telecommunications District" as approved by the voters of the Towns of Randolph, Sharon, Strafford, Norwich, and Woodstock by Australian ballot on or about March 2, 2015.

Our third request (Section 5, pp 27-28 of the amendment) is somewhat more technical. It has to do with attaching cables to utility poles upon suitable payment to the pole owners. Federal and state law provide standard procedures for such arrangements. Typically, some "makeready" work is necessary before a new "attaching entity" can hang cable on someone else's poles. After receiving an application (with application fees) for a group of poles, the pole owner(s) must quote the makeready cost within 60 days. Then, after receiving payment, the owner(s) are required to complete makeready work within another 120 days.

Unfortunately, PSB Rule 3.700 has no clear enforcement provisions. A compilation of 130 applications submitted by ECFiber between January 2012 and May 2014 shows that makeready work was completed either on time or no worse than 30 days late in about 2/3 of the applications. 12% were 90 to 180 days late, and 8% were more than 180 days late. However, fully 55% of the money paid for makeready was tied up for more than 30 days beyond the required completion date. (See enclosed graph.) Delays such as these are costly in many ways, not least to the rural customers desperately waiting for unfettered broadband so that their children can do their homework and they can participate in the 21st century economy.

Public Service Dept staff have pointed out that Act 53 of 2011 included a section calling upon the PSB to establish a Rapid Response mechanism for resolving pole-attachment disputes. Unfortunately that section of law lapsed on July 1 of 2014 without

action by the PSB. As suggested by PSD staff, Section 5 of the MacDonald-Mullin amendment would re-activate that same provision of law, this time without expiration.

As I understand it, sections 2 through 4 of the MacDonald-Mullin amendment were requested by the VEDA, whose Executive Director believes that Telecom Union Districts as proposed in Section 1 would be appropriate candidates for VEDA's revolving loans, but would like to see explicit authorization. ECFiber strongly supports these provisions as well. In this context, it is worth noting that the cash flow associated with building a fiber-optic network is somewhat unusual among capital-intensive projects. The first steps, engineering and make-ready, cost roughly 20% of the total. Once they have been paid for, no further outlay is necessary or possible until other parties complete their work – in a time frame which, as we have seen, is difficult to control. Once make-ready is complete, however, the actual process of attaching cable to poles and running "drops" to customer premises goes very rapidly, so that revenue begins to flow within three or four months. A lender who invests in the last 80% of the project cost, therefore, takes on reduced risk and can expect a repayment stream to begin within six months.

With the Committee's permission, I would also like to suggest a very few additions to the text of H. 117 as found in "H.117-Maria Royle-Draft No. 1.2, 4-27-2015-4-27-2015.pdf".

Fact: Serious economic activity requires robust **upload** speeds..

Recommendations:

In §7515b (a) (page 26, lines 5 and 6): "... shall be capable of being continuously upgraded to reflect the best available, most economically feasible <u>upload as well as download</u> service capabilities."

And in §7515b (b)(4) (page 26, lines 20 and 21): "whether the proposal would use the best available technology that is <u>both</u> economically feasible <u>and extensible to symmetrical upload and download speeds of at least 10 Mbps each.</u>"

Facts:

A transparent process of policy development builds public confidence. The VTA's Board meetings, except of course when dealing with personnel or contract matters, are open to the public by teleconference as well as in person.

While reviewing grant proposals to the Connectivity Initiative will be a very consequential part of the Connectivity Board's work, subsection 202f (j) spells out a long list of matters to be discussed in a public meeting "at least once a year". Instead of

covering all of them in a single once-yearly meeting, spreading them out in a series of meetings would facilitate greater public input to, understanding of, and confidence in the Department's plans and progress.

Recommendation:

In §202f (i) (Page 16, lines 6 -7) change "The Board may meet up to six times a year" as follows:

<u>The Board shall meet no less than four and as many as six times a year. Meetings of the Board shall be publicly warned, and with the exception of executive sessions as needed when evaluating confidential proposals for grants or other Department funding, shall be open to the public by teleconference as well as physical attendance.</u>

Thank you very much.
Irv Thomae

Legal Structures for Municipal Infrastructure Jointly Built and Operated by Multiple Communities

	Conventional Municipal Utility Districts (e.g. Solid Waste) in Current Law	**Interlocal Contracts (Current Law)**	**Telecommunications Union Districts (as Proposed)**
Has "virtual town" standing as a body politic	Yes	Not really	Yes
Can levy local taxes on its residents	Yes	No	No
Governance	Representatives of member towns, appointed by selectboards	Representatives of member towns, appointed by selectboards	Representatives of member towns, appointed by selectboards
Borrows against:	Full faith & credit of member towns	Revenues	Revenues
Are debt obligations of the larger entity also joint and several obligations of the member towns?	Yes	No	No
Operating costs paid from:	User fees and local taxes	User fees only	User fees only
Understood by institutional investors:	Yes	No ("Interlocal what???")	Yes

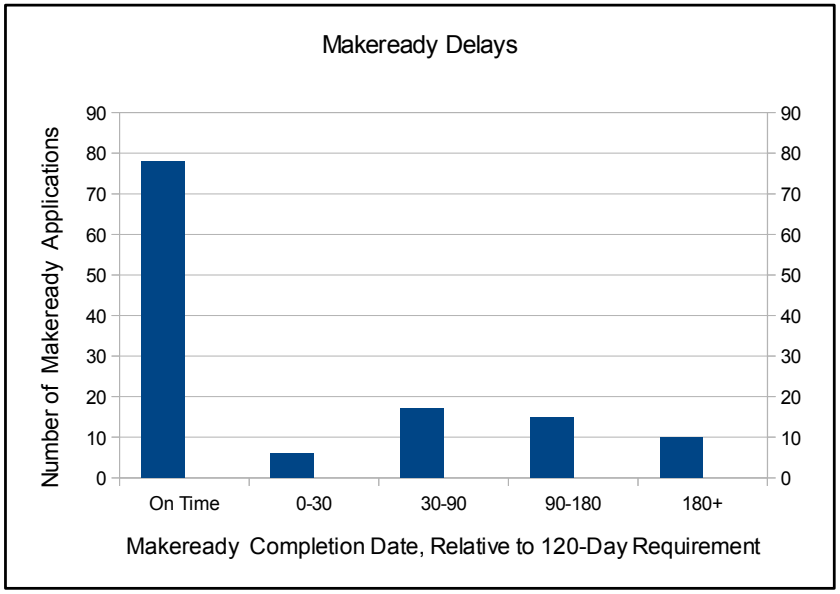
Note: To save space within this chart, the word "town" has been used as shorthand for "municipality," and therefore includes cities as well as Towns.
Similarly, the term "selectboard" has been used as a stand-in for "governing body", i.e. "selectboard or council."

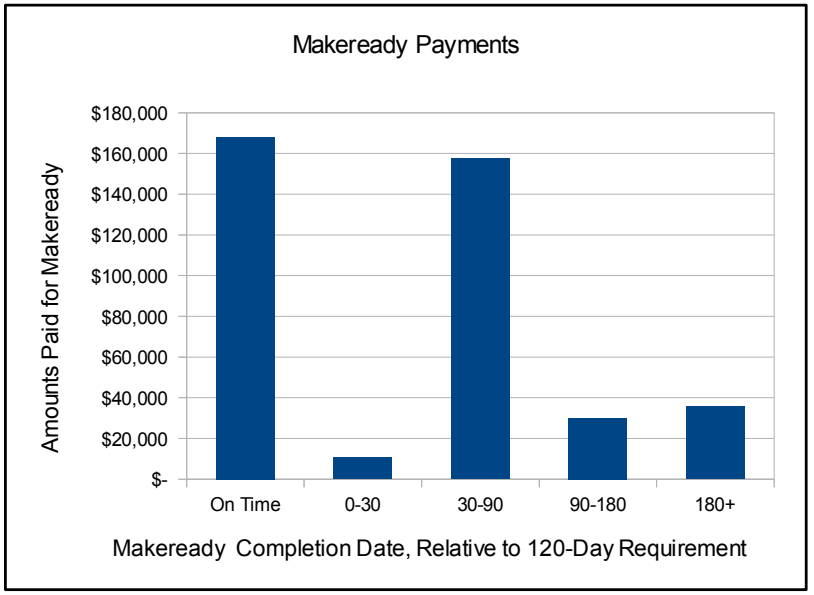
Prepared 4/21/2015 by Irv Thomae

Pole-Attachment Makeready Work: Completion Times and Payments

Compiled from 130 makeready payments made by ECFiber between January 2012 and May 2014

When Completed	Number of Applications	% of All Applic'ns	Makeready Payments	% of Total Payments	(time criteria used)	
On Time	**81**	**62%**	**$168,235**	**42%**	0	
0-30	**6**	**5%**	**$10,699**	**3%**	>0	<=30
30-90	**18**	**14%**	**$157,614**	**39%**	>30	<=90
90-180	**15**	**12%**	**$29,960**	**7%**	>90	<=180
180+	**10**	**8%**	**$35,692**	**9%**	> 180	
TOTAL	**130**		**402,200**			





1. Each group of poles typically results in at least two applications and subsequent makeready payments, one to an electric company and one to the incumbent telephone provider.

2. This first-order analysis makes no attempt to trace dependencies, so it unavoidably ignores cases in which (e.g.) application 'A' is completed on time, but cable cannot be strung until 'B' is also complete. It therefore understates the full magnitude of the delay issue.

3. Similarly, the second graph, showing funds tied up in payments for overdue makeready work, understates the full economic impact of these delays. Delayed construction inevitably means delays in connecting customers and collecting service revenue. Those losses are significant, but cannot readily be quantified.

Appendix III - 2015 CURRENT SERVICE AREA AND EXPECTED BUILD ROUTES

Legend: Blue = Current Service Area Available (March 2015);
Red = Planned Additional Routes for 2015/16
Brown = Municipal/Private partnerships – 2015 build (West Windsor)
Pink/Green = Vermont Telecom Authority routes