

## **Testimony of Peter Bluhm before Vermont House Committee on Energy and Technology, June 9, 2020**

Chair Briglin, members of the committee. Thank you for the opportunity to speak with you today about the opportunities presented to the state for extending broadband over the next few months.

I won't review my qualifications here, since I covered them in the testimony I gave on February 19, 2019.

In preparing for this, I have read the Department's proposed "EBAP" plan and the memorandum from staff counsel. I also have reviewed a wireless broadband proposal in the form of a memorandum from Mr. Stephen Whitaker and which I think you now have before you.

Given my short time here, I will focus on the wireless broadband proposal from Mr. Whitaker. In a nutshell, the proposal is to have an agent of the state contract with VTel to greatly expand fixed wireless broadband throughout the state. VTel is a leading owner in the state of wireless bandwidth rights, of wireless towers, and of fiber "backhaul" facilities. Two kinds of expansion project are contemplated. First, fixed and mobile service within the area now served by VTel would be improved, mainly by using more modern transmitters mounted on existing poles and towers. Second, the proposal would expand wireless broadband to numerous unserved areas, but still by relying heavily on VTel facilities and support.

For a number of reasons I urge you to give this wireless broadband proposal serious consideration. First, it offers a path rapidly to extend broadband to many unserved areas, using the best commercially available technology. The resulting service could simultaneously serve the public's connectivity needs in distance education, community broadband, telehealth, public safety radio, electric grid resilience, and mobile wireless. Also, by proposing a single network that serves multiple retail providers, the proposal promotes a broad expansion of service at relatively low capital cost.

Second, the plan builds sensibly on earlier state investments for broadband expansion. During the Great Recession, Vermont allocated millions of dollars for wireless broadband infrastructure. It sometimes seems that everyone involved in that earlier episode is dissatisfied, but it still makes sense today to find a prudent way to leverage that prior large investment.

Third, the proposal fits comfortably with the new law authorizing communications union districts (CUDs). In general, these CUDs are not yet ready to start stringing fiber. The proposal allows them several years to come up to speed. Under this plan, the CUDs would eventually take over the new fixed wireless broadband service as the state recedes into a supportive role. Other proposals before you, such as to finance extension of privately owned cable facilities, may not be as compatible with future CUD development.

Fourth, the proposal envisions extending existing fiber runs to support new pole locations. Not every home would get fiber service, but many would find fiber much closer. This would reduce future costs if the local CUD ever wants to replace the last mile of fixed wireless service with fiber to the customer's premises (FTTP).

Fifth, the new fiber would not be treated as the secret asset of a private corporation. Rather it would be subject to shared future use on a nondiscriminatory basis. If possible, the new fiber would operate as a "neutral host," a technique that promotes competitive choice and open access at minimum cost.

Finally, this proposal could help solve a variety of lingering telecommunications problems.

- It would increase mobile wireless coverage in the state, eliminating many "dead spots." In nearly all cases, wherever goes fixed broadband, so goes mobile service.
- More fiber and more wireless links can improve resiliency during storms and other emergencies. In particular, the proposal offers a way to solve the longstanding problem of E-911 loss when communities with "remote" telephone switches temporarily lose service on their single fiber cable to their single "host" switch. When the wireline goes down, the E-911 system could simply switch over to wireless transport.
- By placing more wireless network nodes, the proposal could improve the reliability and coverage of the public safety radio system.

The proposal assumes prompt success in several critical areas. One is to select an agent for the state. One option is an independent new nonprofit. Another is to revive the Vermont Telecommunications Authority. If either step is taken, I am reasonably confident that a satisfactory arms-length arrangement can be developed

which is advantageous to both the state and to VTel. There are many pieces to such an arrangement, but that complexity actually creates opportunities to structure compensation in a way that minimizes cash payments while protecting everyone's vital interests. Given the past dealings of these parties, any future deal will have to be carefully reviewed and provide suitable remedies for any failures.

All in all, I think the wireless broadband proposal is credible and should be taken seriously. It offers very good prospects for expanding good quality broadband coverage within the short time allowed by the federal funding rules. It also offers a very good profile of possible longer term benefits.

If time permits, I will be happy to answer any questions.

- Peter Bluhm