

Vermont 2024 Ten Year Telecommunications Plan – Input Session 2

Transcription from Public Input Session held on 3-20-24:

Hunter Thompson – PSD Telecom Director

Hello, my name is Hunter Thompson and I am the director of telecommunications and connectivity with the public service department. This is the second input session for the public comment draft of the 10 year telecommunications plan. This meeting is being recorded for everybody's awareness, so I'd like to give a brief overview of how this is going to work. Basically, Alex will go through a slide deck which will give a brief overview of the plan and some of the recommendations, and then we'll open up the floor to input on the plan. I just want to add the caveat that this is not a open discussion. We're here to solicit input, so we were are glad to accept your input verbally or in writing, if you'd rather you can email it to me or the PSD dot telecom email address on the website and we'll answer the questions, but this is not a session where we're going to have a a long drawn out back and forth.

Also welcome FX. I see you joined. Glad to have you umm. Aaron has checked the line outside. I guess there's no one to come in, so we'll get started and Alex from RISI will take it away with the slide deck.

Alex Kelley – RISI

Great. Thanks, hunter. Again, I'm just going to quickly hit some of the highlights of the plan for context and to prompt people thinking this presentation is not going to be a comprehensive overview of what's in the plan would encourage you to read the plan and provide comments. However, is most convenient. So today I'm going to start by just talking a little bit about the context of this 2024 plan. Give a quick overview of some of the pieces of research and analysis that went into creating the plan and then uh discuss some of our findings and recommendations in some areas. Of particular note, you can go to the next slide, Harley.

So, as with every year, the plan is guided by the telecommunications goals in Vermont statute, and it's also guided by the process for this plan that is also in Vermont statute. What's fairly unique this year is that between the last plan and this plan, there has been an incredible federal resources made available for various parts of broadband deployment.

ARPA Capital Projects Fund and the BEAD DE plan. Uh BEAD DE work. Along with that, those resources, the federal government in making those resources available, particularly the BEAD resources, have also required that states put together very specific plans for using those resources. And what that means is that as we were creating this 2024 plan, there was a parallel process happening dictated by federal legislation to create a plan to deploy the BEAD resources as well as a digital equity plan.

Alex Kelley - RISI

So as you all probably know, those plans were being created simultaneously by the VCBB. And So what we did with our plan here is we made sure to address all the statutory requirements again and 30 VSA 202 C&D. However, we placed a special focus on the elements that were not simultaneously being covered in the BEAD planning so as to be efficient with resources, but also because the BEAD DE plan had very specific the BEAD resources and very, very specific rules attached to that that we could not supersede. Again, here's a quick selection of some of the elements. Research that underpins the plan. We did a landline and cellular phone survey of statistically significant sampling of Vermont residents. We also did online surveys of businesses, healthcare professionals and public safety professionals. We interviewed a large number of public and private stakeholders involved in telecom. Uh, we performed a statewide mobile wireless engineering and coverage analysis, and you'll see some of the implications of that in today's presentation. And we also did an input output analysis, which is essentially a mechanism by which you can understand workforce gaps based on anticipated levels of spending. So again, just a selection of some of the pieces that went into the plan.

So in the findings department, one more slide please. Umm. The headline here is probably obvious to everyone in the room, fiber coverage is expanding rapidly. You know the data that's available to measure this is, you know, continually grows based on how fast fiber is currently being deployed. But through our interviews and conversations, we certainly had a few small challenges identified that made its way into our analysis of the plan and recommendations. So again, according to the data and according to the planning work that the VCBB is currently doing, Vermont is on track to pass all on grid premises by 2029. Uh, we have five years or so between now and then, but as of now and current projections, that should be correct. We found that Vermont does need to grow its broadband construction workforce. This is a section of the workforce that shrank but prior to 2022, and if we expect the state to spend about \$700 million in fiber deployments from here through the end of 2029, which is the upper end of that estimate, it will require growing the workforce 5 out of 750 work workers, according to our calculations. Not all of those are line workers. That's inclusive of the top 12 categories of occupations that impact or are associated with

broadband construction. Another important finding that we heard from several stakeholders is that fiber infrastructure owners may need to bury portions of their network in the next 10 to 15 years as part of utility hardening practices. But there's uncertainty about processes for that as well as costs and responsibilities, and another notable thing is a, you know, actually part way through the creation of the plan, the Agency of Transportation stopped issuing right away permit waivers for which they had been issuing for broadband builders in unserved areas. And so that that increased the cost of deployment in those very sparse hard to reach areas.

Alex Kelley - RISI

Moving on. UM, you know, mobile wireless, you know overwhelmingly, stakeholders reported that service is being critical and based on an analysis of the data, there's been very little expansion over the past five years. So 80% of businesses indicated that the mobile wireless coverage is not adequate at the moment for their business needs. There's some very interesting kind of further responses to that survey about the customers and the employees that I'll use mobile cellular for their jobs and 64% of the residents in the in the survey, Vermont residents strongly agreed that the state should use public funds to improve mobile wireless coverage. Speeds have actually increased quite a bit. Speeds have increased quite a bit since 2018, according to the drive test performed during that period, but coverage areas have not seen many improvements at all, and approximately 412 miles of Rd in Vermont don't have mobile broadband coverage from any provider. So that's across AT&T, Verizon, T-Mobile. And then lastly and quite importantly with the statewide propagation analysis and engineering work, we found that strategically placed small wireless facilities which are 50 feet tall or less can make significant progress towards closing. The easiest to close broadband gaps and so think of this kind of like the effort to bring fiber, right the most rural areas are the hardest and most expensive to serve. So the easiest to serve areas for mobile wireless can be served very efficiently with 50-foot towers. The state can make good progress on that with less obtrusive towers compared to the traditional 140-foot wireless facilities.

Alex Kelley – RISI

So affordability is a big concern in the state and the current outlook is that the affordable connectivity program is going to sunset at the end of April as a program that's been giving about 24,000 Vermonters access to \$30.00 a month subsidy. You know some interesting statistics about how important that subsidy is to different types of Vermonters.

Umm and uh, and you know, so that will be a huge loss and a huge blow to the ability of low-income Vermonters to access connectivity. The other interesting, another interesting

finding was in our survey and discussions with healthcare workers. They very strongly and compellingly spoke to the fact that mobile coverage in particular is critical to our unhoused and housing and secure Vermonters, because that is their connection to care, and that is their connection to consistent correspondence with Human Services providers.

Alex Kelley - RISI

Public safety slide here. So you know, there are public safety systems will continue to evolve. There's the statewide communications interoperability plan and other efforts around the state, but a really big theme of this is also just the importance of mobile coverage for public safety as well. In addition, there's been discussions Amongst suh legislators and policymakers about the possibility of consolidating the public safety answering points in the state to some degree. So we included a number of pages analyzing the, you know the pros and cons and trade offs of that type of consolidation. And lastly, we included some report out of of FirstNet deployments including you know at this point we've got approximately 51st net sites that have been deployed, some of those new construction new towers, some of those upgraded existing towers. Despite that, though, a very small percentage of the public safety respondents reported never losing mobile service on the job.

Lastly, we took a look at the direction of the legislature at the statute, the statutes that govern telecommunications and telecommunications planning in the state, and identified a few ways that the statutes could be more specific and better aligned with the current broadband strategy and telecommunication strategies that are being implemented in the state. There's, you know, there's different differing kind of and slightly misaligned. There are definitions and deployment parameters, and Vermont is actually starting to lag behind some other states on this front. The statutorily mandated end date for the VCBB is potentially before all the BEAD program activities are likely to happen. In particular, the enforcement and oversight, and that the state is going to have to do for the recipients of the BEAD funding and then just broadly the statutory goals, some of which were drafted about 40 years ago, have some overlapping language and nonspecific language, which should be tightened up.

Alex Kelley - RISI

So moving into the recommendations here. So we recommended some small actions the state can take to make wireline deployment more efficient. Again, a lot of this deployment is being governed by the NTIA and the BEAD plan, which has to be that way by statute. But

there's a few things that we recommended. First of all, reinstating the AOT permit fee waivers, at least until the state achieves their goal of Universal broadband. Umm, you know, Vermont has a workforce training programs in place, but they really need to be scaled and calibrated to the workforce gaps that we identified via our analysis. And then lastly, the state should play the role of being the central driver of clarity around the process and costs and implications of the potential future effort to bury infrastructure across the state, right, which impacts everything from which frankly is relevant today as that those future costs given that they're undefined, have an unclear, we'll have an unclear impact on the business plans and economic health of entities building fiber today.

Alex Kelley - RISI

So based on our analysis of the efficiency of small wireless facilities, especially for the easiest to fill gaps in mobile wireless, we are recommending a small facilities mobile wireless grant program and we're recommending a pilot first of two to three million to test a few assumptions and parameters that the state can make and then refine the program to deploy it farther. So again, there's a substantial Amount of ink that we put towards this idea to encourage everyone to look at the text itself for all the specifics. But we do think that the state can make good progress with less esthetically obtrusive facilities. In closing, our broadband gaps and lastly, we made a number of recommendations on this front to update data collection practices for the state to better plan and better measure progress against mobile broadband gaps. So, there's a drive test in 2022 that should be repeated using the same the same protocols. The state can establish a Crowdsourced Drive test with the same parameters as the one that they've been doing to collect data on roads that aren't tested. And then we had a small recommendation about how to request information from 248 a permit recipient so that the state can track the completion of tower builds as well.

Alex Kelley - RISI

So on the affordability front, we're recommending a benchmark of 2% of monthly income as the definition for what, what we should think of as affordable. For low income residents and there's kind of charts and examples in the in the document demonstrating exactly what that is based on the feedback we got from stakeholders and policymakers, we do think that it's important for the state to try to ensure affordability for both fixed and mobile service. And so, because of that, uh, should the state replace the sun setting a CP program? We're recommending a program that provides \$67 a month to qualifying Vermonters to support both the wire line and a wireless broadband subscription. And then lastly, because of the importance of that mobile wireless connection with a reliable device to unhoused Vermonters, we're recommending a program to provide a fully subsidized mobile device

and subscription. I'm working through various Human Services organizations in the state. In the emergency communication systems category, you know one of the biggest barrier barriers is simply there's elements of the skip that that are yet to be tackled. And it's really a funding barrier. Sometimes they're federal grants available, but where they are not available, the state should be the one to step up and fund those activities.

Alex Kelley - RISI

And lastly, you know if the stakeholders considering pushing for peace app consolidation, read our analysis of the implications of that. Both the pros and the cons and believe that it's worth moving forward. The next step is to fund a dedicated consolidation plan, which will outline the specific cost of consolidation and then long term savings. Lastly, on the statutory front. There are a few ideas for how to modernize statutes to better guide practices. You know, first of all, all of the critical telecommunication's statutes need to be in alignment. Act 71 was the most recent piece of statute, and so presumably that's where the other pieces of statute should be brought into alignment with that. But it's also an opportunity to reevaluate the goals more broadly. You know, we do recommend that the VCBB's sunset date be extended to provide make sure that we're able to provide adequate oversight and monitoring, a BEAD deployment and lastly, with the telecommunications goals, the ten goals which as we noted, are occasionally vague or nonspecific and misaligned with current state strategy, and we recommend obviously updating those one small example that we included here. You know the state should be promoting and measuring the benefits of competition, which is which are better speeds, lower cost, better customer service and that should be the goal that the state sets its eyes one rather than competition for competition sake. Given the strategy the state has chosen, which is to empower CU's in our unserved rural areas and given the financial difficulties of making the economics work in those rural areas, and that it, it is hard to support one provider, much less multiple, you know the goals could be recalibrated to the potential benefits of competition rather than competition itself. I think that's the end of my side.

Alex Kelley - RISI

So Harlie, you can pull that down and we'll go into the comment and feedback portion. And if you have your comments written down as well, we would appreciate them emailed just because the transcription sometimes doesn't capture everyone's words exactly.

Hunter Thomson – PSD Telecom Director

OK. Thank you, Alex.

So as Alex said, we'll move into the public comment portion or adults. Let's make sure we keep our comments civil to start, I'd like every to request everybody please try to keep their comments to 3 minutes to five minutes and then as time allows after everybody has a

chance to comment, we can circle back around. For the folks online, there's only a couple of couple of you. So you can speak up or raise your hand and we can call on you if you prefer. Lauren – Glenn please go ahead.

Lauren-Glenn - CCTV

Good afternoon and thank you very much Alex for that presentation and thank you for the opportunity to speak on the 10-year telecommunications plan. Today I'm speaking in my capacity as public policy director of CCTV and representing Vermont Access Network. As you know, I think a mutual aid Society of Vermont's 24 access management organizations, also known as Community Media Centers, is part of the state's social and civic infrastructure from interactive local, state, regional, public, meeting and event coverage, election coverage, educational programs including sports and media education, STEM and skill building for youth and people of all ages, nonprofit media production and planning support open forums for the exploration of diverse ideas and the preservation of local history. 24 Community Media centers deliver a breathtaking range of television and radio programs, counting more than 18,000 hours a year and noncommercial local media services for free or below market rates to Vermonters in all corners of the state. This point was brought home during the COVID-19 health emergency, when the legislature recognized Vermont's AMOs as an essential service that helped to keep the wheels of democracy turning through interactive. And now hybrid meeting coverage set up an operation across the state. Sorry, people are calling band members pull resources for joint projects such as the video file sharing Vermont Media Exchange via Max, and they're recently launched Vermont Community Television channel, which is available in HD on Comcast Cable and streamline with programs of statewide interest.

Lauren-Glenn - CCTV

At the website vtcommunity.tv, all of this is to make a larger point, which is that Vermont members manage and deliver public, educational and government access media services to cabled and non-cabled communities alike, while PEG channels air on cable and are largely funded by cable TV subscribers, these services are now largely delivered through the Internet and therefore should be considered part of the state's telecommunications planning concerns. Just as an example, CCTV and town meeting television just produced election coverage on town meeting day, as did forms were covered all over the state by all the 24 centers. But our election coverage was viewed online by 7000 people and including our election forms, which counted probably three dozen. We had 21,000 views online. We're not able to count the cable views, but we know that we have a wide audience who are using fiber through their telcos through their cable Cos essentially fiber to access services. So just to start at the top very quickly, Vermont offers the following comments on the draft. In your plan, given that the Federal Communications Commission

just voted on Thursday to raise the benchmark for broadband Internet to 100 megabits up and down or up in 20 down or down in 20 up this first increase since 2015 is really important and it's a speed at which all Vermonters should be able to expect, according to the plan draft, 60% of Vermont households do not yet have access to these speeds.

Lauren-Glenn - CCTV

And this is in section 202 CB one we agree with the plans recommendations to generally align the goals and directives across the statutes, and in particular to set universal 101 hundred megabits as the goal for a while. Wireline broadband across all elements of telecommunications. Statue we're guarding section 202 CB7 support the application of telecommunications technology to maintain and improve government and public services, public safety, and the economic development of the state. We recommend that the plan take a broader view than those recommendations outline in section 12.7 on page 65 and consider ways that telecommunications technologies can be applied using the partnership of Vermont's AMOs. First, broadly speaking, we believe that the state, one of the recommendations should include that the state provide funding to support municipalities and regional bodies to plan, build and implement hybrid public meeting coverage in those communities currently served and unserved by PEG AMOs. Funding for Technical Support and equipment purchase in those communities, which lack the infrastructure, could be implemented by Vermont's experienced PEG AMOs and or by the public bodies themselves. This would extend the region democracy to all members of the Community interested and willing to participate in local government and decision making. I think it's important to acknowledge the incredible asset that the archives of Vermont's 24 access media centers represent. CCTV's archives alone count more than 45,000 programs dating back two 1984. Recently working with Middlebury College. We're part of a National Science Foundation 5 year Grant to establish Vermont Videographic Access Archive, which would be accessed using online resources.

Lauren-Glenn - CCTV

So while this may not be germane to the plan itself, is, which is quite preoccupied with broadband deployment lateral goals to consider is the continued investment in the archivist preservation position at the Secretary of State's office and to continue to support the Secretary of State's archival preservation position. Actually, program umm we are very concerned with the modernization of Vermont's telecommunications tax structure and believe that public benefits in general could be modernized and rethought. That is happening in the legislature at this time, but it certainly is an incomplete process from our standpoint and examining existing the telecommunications tax rates, including the Vermont Universal Service Fund, E 911 telephone personal property tax in the cloud tax

and reconsider how these subsidies the distributed to users of the public network would be in order.

Lauren-Glenn - CCTV

Moving ahead to 2202 DE, the department shall coordinate with Vermont access media organizations when planning public hearings. So while we were struck from the statutes, the last time the statutes were updated as a concern of the telecommunications plan, we are included as a partner in helping to plan. And to build an audience and to expand the reach of this process. So the first, the first recommendation that we have is that you have a great list of stakeholders, including, for example, the Vermont League of Cities and Towns. And we think it makes sense given the important role that we play in as an application of the telecommunications infrastructure that has civic, democratic and social implications, that we be included as a stakeholder in future assessments. I have testified on more 10 year telecommunication plans than I care to remember. Not that I care to remember, but that I probably can remember going back to the 1990s at least, and it is a mystery to me why there are only one or two people here at these hearings, except that it's not a mystery. It's a lack of outreach, and given the amount of money that we're spending on the plan for the research and the writing, which I understand is really necessary, I think that the department or the legislature or whoever has to make the decision, I would put this in the recommendation. It's a seriously invest some resources into a preparing this materials in advance so that they are easy for people to understand along the lines of the presentation that you just made, and that a serious outreach strategy be developed in order to include people who could with this information and with insight, could be educated to participate in this process. Otherwise, you're pretty much stuck with the stakeholders that you've you've listed, which I'm sure gave great input.

Lauren-Glenn - CCTV

I've no doubt about that, but what's the point of having a public hearing if there is an outreach to make sure with people come. So one part of that is to provide VAN with more notice than 10 days or even two weeks of the dates of these hearings, so that we can assist with using our network to help bring people in as well as broadcasting these on our channels. But in particular, to really think seriously about who are the groups, the advocacy groups, the organizations that represent low income people that represent public safety that represent umm. Older people, all of these advocacy groups have constituents, and those constituents need to be mobilized in order to weigh in on these questions that affect where they live, where they work, and essentially their existence, functional existence in the state of Vermont. So thank you very much for your time.

Hunter Thompson – PSD Telecom Director

Thank you, Lauren. Glenn. FX do you like to go next?

F. X. Flinn – EC Fiber

Yes, thank you. Umm OK I so I want to begin by saying this is by far the best 10 year telecommunications plan I've ever read. And you guys did a bang up job, so two thumbs up. Umm, I just want to offer a couple of comments suggestions and I will provide you with my marked up. A copy of the plan. Umm, so taking it in order of what we need to do locally here in Vermont as opposed to nationally and things that we need to do immediately versus things that are going to take a while, I wanna address the workforce concerns. I want to address the mobile. And enhancements, particularly the small tower program, I want to talk about burying infrastructure and I want to talk about affordability and I'm I'm doing all of this based on my role and experiences. Chair of EC Fiber. VCUDA is going to be coming on Friday evening. Ohh, the board of the VCUDA. I'm the secretary treasurer of that organization. We're gonna be meeting. Tomorrow and discussing that, I'm sure that the CUDA is going to be bringing in some comments as well. So I'm not trying to anticipate those.

F. X. Flinn – EC Fiber

Alright. With respect to workforce, uh, you know the VCB and the state colleges got serious about working on this and we've it's been a very, very tough row to hoe. OK, I honestly believe that the that if the that the state needs to recognize that there is no way we're going to be done in 2029 with the amount of workforce that's available to us. And I think the state needs to think seriously about looking to see whether or not it can create some kind of a long term incentive program to get another 20 or 40 or 60 people to come here and work here for the next 5 to 7 years. At which point in time they would get a significant bonus of some sort. Just an idea, but it's that serious a problem that if there is not, if there is not some way to super incentivize people to come up here and do it, despite the fact despite the housing challenges, despite the cold weather challenges we we just are not going to meet that 2020 million goal, OK. Secondly, umm, with respect to the, the idea of the the small towers, now that pilot project is one that relies on ECC fibers fiber in the in the in that area and EC fiber would like to go ahead with this. I know Mac Mountain would like to go ahead with this, but nobody wants to put up that million. Two million \$3 million to get it off the ground and see you know whether or not this can really work because there are open questions about what kind of revenue will flow through, will it be, will it be enough to sustain it in terms of any repairs, equipment upgrades, things like that in concept? It looks like it should work. But there's a limit to the willingness to invest in this idea without knowing that the states. Kind of got our back. I think that if if because face it if this proved out and it would make sense on its own, there would be private capital available, right and

the state wouldn't have to get involved. It's a really inexpensive way for the state to find out whether that'll work.

F. X. Flinn – EC Fiber

You see these and other small carriers needing to become uh, carrier grade or enterprise grade and I have to say I read that as the the big cellular companies not wanting to get involved with doing small towers or anything else because they you know they are looking at I huge cost to go with dark fiber from the major dark fiber providers who in many cases would not be you know who are enterprise grade who in many cases are not on these small roads they would have to put up you know additional fiber and then charge the. Cell companies rates far above what, say, etc. Fiber would charge for dark fiber, but by the same token, etc. We're not in a position to offer the kind of contracts for businesses that show that you are carrier grade or show that your enterprise grade and the willingness to invest to get to that point does not exist right now because we're busy enough fulfilling our original mission of building out in a Vermont where we're talking when we're talking about residents and businesses. You know, we're really talking about small businesses, essentially residential services fine for them. And you know the big institutions, the hospitals, I the major manufacturing firms, they have long been able to go and purchase carrier grade Internet at market rates. You know, wherever they locate themselves in Vermont, so there's not a market incentive for us to ramp up to that because frankly they're just isn't enough business that we might win from those folks in, in our service territory.

F. X. Flinn – EC Fiber

So I would be careful about giving a lot of voice to this call for carrier grade CUD's and enterprise grade CUD at this state of CUD development. I mean here we are, EC or we've been in business for with 13 years and we're not ready to take that step. So it's the 10 year plan we do in 20-30, might more fruitfully address this, OK. In terms of burying infrastructure, you know right now and understandably, Green Mountain power is deciding where and when they're going to do you know, what aspect of this of this grid hardening. That's understandable, but it's frustrating for me to talk with our operator and say and say, hey, when we were going over umm, the build out plans up in Newberry and Topsham and we notice that long run of easement polls going across Hill and Dale. Now, that's exactly the kind of thing Green Mountain power wants to get into. Underground along the road. So, you know, can we make sure that that gets done now and if they're not going to do it now, then maybe we should go out and contract with somebody and we should put the conduit down the road and make sure we put in conduit sufficient for GMP and then they can buy that work for us. Well, GMP's not having that type of conversation with us, OK, not that they, not that they don't want to necessarily, but it's that they're not far enough along either and I

don't know what the incentive is, but if the states 10 year plan can incentivize all of us to be focused on that issue, I think that would be that would be a huge improvement.

F. X. Flinn – EC Fiber

And then finally, my last point about the affordability. I'm just a little bit disappointed that the fact that EC fiber offers a \$20 private subsidy on top of the \$30 ACP subsidy isn't noted in this report. I think because I think that's kind of a cool thing that we do as a district. I also would say that we have a lot to bring to the table, a lot of learning that we did because EC Fiber donated \$250,000 over the course of the last three years to stand U equal access to broadband, which went through the process of finding out how to identify and reach out to and do navigation for households in order to get them qualified for the ACP. And you know, frankly, it turned out to be really like pulling teeth because VCBB was not granted a a recognize agency status by the state. So they couldn't find out which households in a particular town that we had complete service in should be contacted to see if they would like, you know, if can we help you get into ACP, etcetera, etcetera. So it became a, you know, it became a super difficult process and there's all that learning and uh and on top of that you know we've got the B digital equity thing going on. Now we have the proposal that is coming into the legislature, where they're gonna give, they're going to create this additional or new or revised telecommunications tax. They're going to put some of that money into the agency for Social Services to figure out what to do.

And I'm telling you, a VCUDA, we're like, oh, wait a second. OK, we can't have. We can't have three different things going on.

F. X. Flinn – EC Fiber

We've got to get all the stakeholders together at a table, so the CUDA will be recommending to the legislature that they establish a study group that makes sure that every single stakeholder in the state who know either knows about how affordability actually works on the ground with a customer, an ISP to how households can be identified i.e. The capstone agencies too. Uh, the people who are doing digital equity work nationally who are influencing and helping put together the digital equity program for BEAD in Vermont, which will result in a grant and that that grant money, it can't go to the state broadband office, VCBB. OK, it goes. It's gotta go to a private entity. So you would think, OK, the capstone agencies, right or VCUDA or something like that, I don't know. I just think that in Vermont we can be smarter about this and and we can we can get this right. But we have to realize that we can't. There's not a lot that we can do right now immediately, and this idea of \$19 million really if you ever got that passed, it would immediately be a \$40 million program because it would be so much easier for people to take part in. So it's not really at \$19 million program, it's really a \$40 million program.

F. X. Flinn – EC Fiber

I just looking at the politics of everything right now, especially with what was going on with the schools. Hard for me to see that getting started at this stage of the game in the legislature, not going to be until next January. There's a lot of time between now and then. Get all the stakeholders together to figure out a way forward and if that way includes action that the state legislature has to take, then when the legislature convenes next January, we'll be all set with, you know, with draft laws. So and finally one last thought that there's no affordability without availability and I was really happy that the plan emphasized that the CEO's need to focus on getting their network built right now really should not be distracted by an effort to. A force them to to be the most affordable option everywhere in their district right now. EC Fiber is not there and we've been at it for 13 years, so I'll just say that. Thank you. Any questions?

Hunter Thompson – PSD Telecom Director

Thank you, FX. Appreciate your input.

Senator Irene Renner – North Chittenden

Hi there I'm solo Senator for North Chittenden.

Hunter Thompson – PSD Telecom Director

Mind going last, Stephen? Thank you.

Senator Irene Renner – North Chittenden

My name is Irene Renner. I'm the solo senator for Chittenden N. I'm not here necessarily to speak in an official capacity. I am also a member of the Joint Information Technology Oversight Committee. Yeah, not here on their behalf, but just a party. I have worked in technology and my distant past, just new to the world of telecom. Starting made my way through your plan. Thank you for all that good knowledge. I would echo. First of all, Lauren-Glenn's point about needing more effective outreach. We've grown accustomed to having remote participation, but the lighting sound bandwidth can vary from site to site across the state, and I recall a long time ago a model which I'm told was that Vermont interactive television model in which we could go to a site. I went to Williston and we could be assured that there be a well-lit room and the technology set up so that we could be heard and we could hear other people. So I don't know how many people are not tuned in just because they don't have the bandwidth or because they're too remote.

Senator Irene Renner – North Chittenden

Uh, I see a couple of pages in here devoted to FirstNet and also priority and preemption are defined, but only for that carrier. I wonder what is the failover solution when FirstNet goes down as it did just a few weeks ago. The plan also doesn't speak to the recurring problem of fiber cuts. The plan should document recent ones as case studies, so we might better prevent and remediate future outages. And I'll stop with thanks.

Hunter Thompson – PSD Telecom Director

Thank you.

Stephen Whittaker

Well, I wish I could be that concise.

Senator Irene Renner – North Chittenden

We all do, right?

Stephen Whittaker

Ohh. I'm gonna touch on a number of topics. Especially regarding the public safety, the public safety communications task force met today, it's been being almost weekly or biweekly. What's lacking in that regard is again, I'll point it at the deficiencies of prior plans if we could have by now established in a plan two or three iterations back what the architecture for statewide public safety network. Uh building from the state microwave network, which is kind of the last resort when all the grid collapses, it's generator protected its line of sight. It's fiber to those towers. I don't know whether it's buried or not, but presumably it is. If not, it should be. Umm, that's in effect may be the only way for us to deliver and I will. One calls and transport radio signals to towers after a big disaster, and it's beneath that is the state police statewide land mobile radio network that utilizes that microwave network for long haul, but also has fiber. Media diversity. And then there's the regional networks and the recent RFP's for the public safety planning. Uh surprised everyone by saying they're building a statewide trunked radio network in the future, but no one has ever agreed to that authorized that. Put any cost numbers that could be hundreds of millions of dollars, because they'll also have to replace every portable radio of every first responder and every vehicle radio that are compatible with the trunk system. So without this architecture having been defined, we're squandering money and we're going down dead ends in a very reckless manner.

Stephen Whittaker

While the 9 million in congressionally directed spending is at risk of being forfeited if we don't spend it by the end of the year, but we're kind of when they're caught in a vice between spend it without a plan or spend it on assumptions that haven't been validated yet

and it's chaos and that's the purpose of a plan, is to guide those decisions. But if the plans haven't been done year after year after year, or flying blind, or we're rebuilding the airplane engine while we're in flight and it's a lot of shared responsibility there, so I've made a graphic of that concept, but I won't try to umm. There is the administration is interpreting the statute found in 3 VSA. 3301 there's a definition of information technology activities and those that definition governs telecommunications network cause all telecommunications networks today are built out of information technology, routers, switches, circuits, microwave fiber, whatever. It's all information technology, including all the phone carriers, all the broadband carriers. It's all information technology under that definition. But yet, and that's what triggers planning requirements in three VSA 3303, those planning requirements are to protect both the integrity of the planning as well as the finance. We've had lots of big IT disasters over the years and I think we're heading for one again with our broadband investments. But my point is that it can't be left to the Agency that's supposed to conduct or contract for the independent review of these massive investments.

Stephen Whittaker

Anything over \$1,000,000 has to have an independent expert review anything over half a million has to have the whole series in laid out in 3303, a series of elements of plans that are all to be on file at 80 S the problem is that they're claiming that these public safety IT investments are not IT investments. Therefore, we don't have to plan, so we're headed for a train wreck there. Again, precisely because we haven't planned, we haven't defined what it is we're doing or how these statutes apply to it. Similarly, the he spoke, Alex spoke about the statewide communications interoperability plan. You can't hold that hostage for more money. You've gotta staff. You've gotta department. We've gotta telecommunication staff present in the room. Y'all should be writing the plan, not squandering \$400,000 on it. Firm that cheated us last time. Y'all should be writing the plan and if I have my way, we're going to extend the deadline for this plan, conclude their contract, that they'll take the money and run and y'all will finish the plan and make it right this time because they've proved that they can't do it.

Stephen Whittaker

So the senator brought up the issue of the failure of AT&T and T FirstNet. It failed for upwards of 11 hours on the 22nd of February, the governor opted into FirstNet in 2017, even though we had evidence ahead of time that there was not a disaster recovery plan. It was missing. They claimed that document was secret. I didn't think so. I thought it was essential to put it out there. The legislative committees refused to look at it, so here we are. Or, six years later, this draft plan says that we don't have substantial more coverage than we did in 2018. But yet FirstNet claims they put 50 towers out there using our 25 million and our 30 million worth of band 14 spectrum. Those both the 25 million cash from NTIA and

the 30 million worth of spectrum, that's an educated estimate would have been at our discretion to use to build a reliable rant that would not have been vulnerable to AT&T, but faulty update processes. So. Ohh, this plan refers to the public safety, the governance and the skip as being governed by it's so blatant that the misinformation in it refers to. Ohh it's being advised by the Emergency Communications Advisory Council. The Emergency Communications Advisory Council was created four years ago by executive order, but it's never had anybody appointed to it. So to be putting in the plan that this ghost empty Council is advising on this stuff is absolute fallacy. You know, why didn't y'all Fact Check this thing before you put it out for public comment? That's just one example, right?

Stephen Whittaker

I've raised it my last comment. Ohh, I'm gonna pause for a second. The transcription that I received, even though it did have names in it, is useless that the accuracy of the transcription is useless. I asked the director of Electrical planning, I believe there's a statute that requires statutorily required public hearings to be transcribed professionally. These hearings are too important, but my way of viewing it, if y'all didn't do the precursor prerequisite, you're you gotta start over anyway. You've gotta do the 10 year forecast. All the things that it says you have to do before you put the plan together, you've gotta go back and do those and then put a preliminary draft out. So I would ask you to read the darn statute very carefully, because I've been paying attention to it for 30 plus years and it was only written like 35 years ago, so. Take heed. I did a public records request from the Department of Public Safety regarding the FirstNet out. The AT&T outage and there I should have done it to you, Hunter, because it says the only people who got this email from Barb, Neil were hunter Jen Morrison, Commissioner of Public Safety and the E911 board chair Roger markup. Now they're claiming it's governor executive privilege, right? But it's about policy development, advising the governor the record is protected on operational decision making and communication strategy. Will it, regardless of whether it's executive privilege or not, how to prevent and what did we learn from this massive outage of the can't too good to fail? FirstNet should have been in this plan.

Stephen Whittaker

Yeah, you'll have to break executive privilege breach executive privilege to put it in the plan, because why did it happen? We can't let it happen again, but we need to fail over to the other carriers with priority and preemption, you know? that's a whole architecture that should be in the plant. Instead, you're advertising for Mac Mountain, ignoring details assets. You know you're advertising for FirstNet, ignoring Verizon's assets with priority and preemption. This is ludicrous. Did y'all not catch these flaws right? Are you just taking whatever Alex and RISI feed you? Cause they got the 400,000 or so.

Stephen Whittaker

The CUD's are attempting to merge to better position themselves, to compete for BEAD funds. BEAD funds are competitive based on the number of unserved addresses, and they fear that Consolidated's here. Comcast will win their share of BEAD funds because they have a greater concentration of unserved addresses within their reach that the CUD's don't have. And so by combining CUD this was done in environment and Energy Committee to that by combining CUD they'll better position in the quantity of unserved addresses to be. But why didn't when southern Vermont CUD decided to partner with it's validated? Why didn't they put a prohibition a non-compete clause in there and say if you're going to take this work, you can't compete against us would be fine. It's like who advised that that contract and how did we we, how did you adhere to the statutory goal of competitive choice and Open Access in entering that contract instead of laying out strategies to accomplish the statutory goals of competitive choice for consumers and Open Access for competitors, this draft attempts to end around them and says Ohh we'll change those. We'll get somebody to change those for us so that we don't have to have competition, but to pretend that we're going to accomplish the goals. I just heard this twice.

Stephen Whittaker

Now we're going to accomplish the goals of competition, meaning better speeds and lower costs and better customer service by granting monopolies when you've got no lever to accomplish those goals, it's a it's a wing and a prayer. You're not gonna. These are volunteer run organizations. I'll jump to the carrier grade issue again. Those are that requires engineers \$200,000 a year engineers to do carrier grade. So the idea is that absolute fallacy that we're going to turn the CUD's and to carrier grade because they're never going to have the economics. Most of them aren't. Don't have the economics to create a sustainable staff, but the lack of transparency, the lack of transparency of what they are doing and what their agreements with the operators are doing and how that's affecting rates and how quickly things are gonna be fixed. We're gonna leave a lot of people without landlines during power outages, with only a fiber connection and possibly not even sell coverage without an ability to call for help. And that's gonna be that's going to be on y'all. You know, I hate to say it, but this is this is the problem of failing to plan year after year after year, for decade after decade.

Stephen Whittaker

So I gotta just a couple more things.

Hunter Thompson – PSD Telecom Director

I think it's 6:00 o'clock, but willing to go over.

Stephen Whittaker

OK. So an inventory is needed. An inventory is needed of what's in our right of way in order to inform the legislative process about where we're going to get the money to do this work. There's the 911 shortfall. There's the lifeline shortfall, TD 922, 911, and 988 shortfalls. PEG access and I'd also recommend that the AMO's made a good pitch today for how what services they provide. I think we need to elaborate or consider at least that y'all in the plan should consider positioning AMO's as the first public information. Uh vehicle during disasters, they could. They could and should have generators. They could and should have diverse connectivity, even underground. They should have potentially low power FM. Uh, they should be taking the load for public information off of the first responders to be out there saving people. Beginning to remedy that disaster, it the demand for information on 1st responders should be outsourced to the AMO with proper funding and infrastructure. That's a viable, especially in that they're asking for continuing public money that would. That's a good quid pro quo to expect something back. The inventory needs to be done statewide and I believe that at this point, ignoring the electric infrastructure and the public right away, ignoring the gas infrastructure in ignoring velco, ignoring Green Mountain power, fiber is a mistake. I think we need to inventory everything into GIS that's in our public right away and then let and tie that to a financial model and allow the legislature that then tinker with who's exempt and who pays what rates. But with that kind of a system, you can fine tune subsidies and accommodations for new emerging competitors and or CUD or whatever, whoever needs to handicap. But without that kind of, that's an information infrastructure to complement the utility infrastructure and the right of way and to create a revenue store.

Stephen Whittaker

To sustain it, the other the neutral host model for post I, I believe there's some weaknesses in the Mac Mountain chapter, but the whole elaboration of of neutral host options based on spectrum based on uh, share radios or new over and open Rand radios where the individual carriers could have their own infrastructure. Uh needs to be elaborated because there's a potential and I've verified this as a potential to use those roaming agreements in that spectrum in a way that generates revenue to maintain the public safety radio network. This is something we really need to consider because ongoing funding for this public safety communications is as difficult an issue that stuff needs to be replaced every 1520 years. And so we're talking \$100 million, maybe more and then another \$100 million. So we need to be really acting now to put the information infrastructure, which is based on GIS inventory of what's in the public right away as far as secrets. There's just been some language crafted for a professional study by a lawyer and an engineer to tease apart all the alleged needs for secrecy. Deal with Homeland Security critical infrastructure deal with

trade secrets. Deal with system security exemptions, but otherwise tease it apart. Even CUD they don't need, they need secrecy of what they're gonna build next. So Comcast or Consolidated doesn't run out ahead of them. They don't need secrecy for what their operator agreement would Waitfield is, you've just expanded the footprint of Waitfield as a regulated eye like by tenfold be via the security agreements and fiber, void. And yet no regulatory teeth at all. And yet, that's exactly what we should be doing with the backup power to make sure people can call for help in an emergency. I'll leave it at that.

Hunter Thompson – PSD Telecom Director

Thank you, Mr. Whittaker. With that, we are out of time and a little bit over. I want to thank you all for attending. Be back here again next Monday. Not sure what that day is. The 25th maybe be back here to 25th for the final round of this. Everybody have a good night.