

NWX-DOC-NTIA-OTIA

Moderator: Karen Perry
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1:00 pm CT

Coordinator: Thank you all for standing by. I would like to advise that today's conference is being recorded. If you have any objections, you may disconnect at this time and now I will hand the call over to Karen Perry. Thank you. You may begin.

Karen Perry: Good afternoon and thank you for joining us today for BroadbandUSA's monthly webinar on broadband topics of interest to policymakers, decision-makers, practitioners and consumers.

I'm Karen Archer Perry, a Senior Policy Analyst for BroadbandUSA and I will be moderating today's Webinar. This is an Infrastructure Week special focusing-on successful models and best practices for rural broadband deployment.

Before we begin, I would like to highlight some of the logistics for today's call. We'll open the Webinar up for questions after the completion of the presentations but you can use the question box on the right-hand side of your screen to submit questions or comments at any time.

You can also engage with the presenters, NTIA or your peers by tweeting with the hashtag #TimetoBuild. Second, the presentations along with the transcript and the recording of today's session will be available on the BroadbandUSA Website within seven days of this Webinar under the tab events, past events.

Finally our BroadbandUSA Website provides information about our technical assistance program, guides, products, publications and other tools that can assist you with planning, funding and implementing your broadband project.

Digital technologies impact all sectors of our economy including agriculture, small town Main Streets and regional economic development. Yet 31% of rural Americans lack access to fixed terrestrial broadband at the FCC recommended speeds of 25 megabits per second download and 3 megabits per second upload.

Consumers, civic leaders and businesses are looking for new models to expand rural broadband and today we'll explore three successful case studies and highlight best practices for successful rural broadband deployments.

To help us navigate this discussion, our presenters today are Debra Hansen, the Director of the Washington State University's Stevens County Extension in Colville, Washington; Wes McCart, a longstanding Stevens County Commissioner located in Springdale, Washington; Bob Hance, the President and CEO of Midwest Energy and Communications which is based in Cassopolis, Missouri; and Gina Shuler, the Marketing Director at Home Telecom in Monks Corner, South Carolina.

As we begin our first speakers are Debra Hansen and Wes McCart. Debra is an Associate Professor and County Extension Director with Washington State

University focusing-on community and economic development in rural Stevens County but Debra's impact goes far beyond Stevens County.

She's a strong advocate and organizer for rural broadband and regional economic development across the Northwest and beyond. Debra was a founding member of the Stevens County Local Technology Planning Team which was launched in about 2012.

The Stevens County Technology Planning Team was initially supported by Federal Recovery Act funding but that work continues today under Debra's strong leadership with extensive local support and engagement. Wes McCart has been a Stevens County Commissioner since 2013.

He is an avid champion for broadband as an engine and a basic requirement for rural economic development. Wes was instrumental in leveraging county funds for a stimulus-funded, last-mile fiber build-out. More recently he's worked with area service providers including Charter Communications to expand their network footprint and improve broadband services in the county.

When Washington State suffered devastating wildfires in 2015, Wes worked with the Stevens County Broadband Action Team (BAT) to build the case for increasing infrastructure build-outs throughout the region. Wes holds a bachelor's degree in biomathematics. Please welcome Debra Hansen and Wes McCart with our first case study.

Debra Hansen: Great, thank you very much, Karen. I know that we are here to talk about some very specific success that we've had with engaging providers but I think I'd like you to understand a little bit about where we live and where we work and it looks like my star has moved. We are looking at a Northeast Washington and in a green outline is the outline of our county.

We have 36.4 acres per person so we're very rural. There are six cities and towns and our geography challenge is specific to broadband or we have rivers, mountains and forested land and so it's very difficult for us to deploy broadband. Next slide, please.

So as Karen mentioned in 2015 we did have a major wildfire here that burned over 63,000 acres and it had no broadband at the fire camp that was located near that fire so without access, the county sheriff had to deliver GIS maps on a terabyte drive from the county office as the fire was rapidly expanding.

So this incident really ignited our desire to figure-out how to get more broadband in our community and you can see from the members of our team we're very diverse. We have representation from agencies, people, individuals, organizations and elected officials. That's what makes our team so successful. Next slide, please.

Early on when we started looking at broadband, we started working with providers by doing an Arc version of the home and garden show which was a tech expo. Anything that touched the Internet was welcome to come and it expanded our knowledge a bit. We also created a Wi-Fi gadget garage to help people understand how they could get connected to the Internet. Next, please.

Next slide, please. Then we got involved with Karen Perry and NTIA with the BCAT tool, BroadbandUSA connectivity assessment tool where we started to realize where our gaps were in our broadband and how to be engaged and one of the things we learned that it builds the case for investment and we needed to work with our providers. Next, please.

So the BCAT tool gave us new questions to ask providers. How do we find who to engage with that strengthens our relationship and then it gave us information to prepare for the provider meeting? Next, please, so our team got together and really talked about what gaps and opportunities we want to share and ask providers for.

We made personal invites to all of the ISPs that we could find both on the FCC site and local knowledge and then we decided as a team to go-in with an attitude of partnership, even though we were frustrated with our gap, we still wanted to know that the providers were our partners. Next, please.

So we had a very successful provider meeting in March. We had 14 providers which is quite a few for our rural community. We had 23 BAT members that came and we had great conversations about ways that we can work together both for projects and for funding.

We came-in with the attitude that we were vendor-neutral, technology-neutral and boundary-neutral so that really opened-up for some conversations - some candid conversations - with those providers and I'm going to let Wes talk about some of the successes.

Wes McCart: Next slide, please, so as you can see by the chart here that Chewelah is the unique community in that it's a city that's divided completely by two different distinct parts of the city. It's one of the few in the State of Washington. Next slide, please.

So part of the problem was that you didn't have the two pieces of the city connected with each other or connected at all so Mayor Knauss pulled together its group of the community to show that we needed to have connection to broad households, airport folks and businesses together.

We had seven providers show-up. Chewelah demonstrated the interest of the community, the providers and helped build the business case for the vendor. The quietest one in the meeting was Spectrum Charter and that's the one that has helped that community. Next slide, please.

So in December right before Christmas Charter Spectrum came-out and started to provide service to that area. They had built-out approximately 1500 homes and they've had over 150 businesses that they've built-out and they're having a good take-up rate on providing the service.

As to the speeds, they offer speeds from 100 to 300 by 10 and 20 and they also have a low-income offering of 30 by 4 which is excellent for our community since we are a low-income area. They also have business speeds from 100 by 10 to 300 by 20. Next slide, please, so one of the businesses that really benefited from this was our local drugstore Akers United.

They have the ability to fill prescriptions in a community where there are a hospital, small hospital without patient services to clinics and the pharmacy is a critical piece of the infrastructure for that community.

However, their Internet service before Charter Spectrum came in was one where they'd have drop-offs all the time and now they are able to operate 11 computers at the same time versus one computer that would keep dropping-off and they save about \$500 a month with speeds that are tremendously above what they were before. Next slide, please.

So as you can see from this we still have gaps to fill as the county lacks service in many locations. The planning and build-out is local but it affects everyone into the broader community.

Having a rural economically-depressed area with broadband service allows folks to take distance learning and allows people to take trips to museums in France or somewhere else where they wouldn't be able to ever afford to go so you can see how important it is to our community.

If success can happen in one community like Chewelah, it can happen for all of Stevens County, and that's been our position. Next slide, please, so boots on the ground. Getting the local community members together to identify the gaps of opportunities has been critical to our success.

One of the items we're working-on is prepositioned fire camp as this addresses public safety, disaster planning and economic development with one broadband deployment. We must stay committed to continually work for the future success. Next slide, please.

So broadband is a continuing project. It goes slow at first but the success breeds success so the challenge is how do you keep going when we're such a large community with such low progress and that's just stay committed and that's been our goal and that's been also our success. Next slide, please, and that's the end of our presentation, thank you.

Karen Perry: Just stay committed. I think that's a great message particularly when we're thinking about partnership and finding in those win-win arrangements. Sounds like you've come very far in that regard and that's really why we wanted to start with this case study.

As a reminder if you have any questions, we're going to take them at the end of the session. You can use the question box on the right-hand side of your screen to submit your questions or comments at any time and you can also

engage with the speakers and NTIA and your peers by tweeting with the hashtag #TimetoBuild.

Our next speaker is Bob Hance. Bob has enjoyed a 44-year career in the electric cooperative industry and has served as the President and CEO of Midwest Energy and Communications since 2002. He has secured more than \$4 million in economic development grants and positioned coops as leaders on energy and economic development issues.

Most recently Bob has focused his efforts on bridging the digital divide as a tireless advocate for rural broadband. He's active in broadband policy discussions at the federal, regional and state level.

Bob is a founding member and current Vice President of the Rural Broadband Council, an independent operating unit of the Utilities Technology Council, UTC and he is a member of the Rural Broadband Coalition. Please welcome Bob Hance.

Bob Hance: Thanks, Karen. Just one point of correction, you started-out by saying we were in Missouri. We're actually in Michigan so when you go to the first slide, there you go, I suppose you can tell by the map that that is Michigan so just to get started, we're Midwest Energy Communications is an electric cooperative based in Michigan, Cassopolis, Michigan.

We're one of about 900 electric coops across the county so our primary mission is to provide electric distribution. We serve approximately 36,000 members in 11 counties in Southern Michigan and Northern Indiana and Ohio. You can see us positioned on the map in the dark green at the bottom of the state, both on the left-hand corner and the right-hand corner.

We're also in the propane sales business when providing service to about 6400 businesses and residential customers in 15 counties located in both Indiana and Michigan. Then more recently we've entered into the telecommunications industry by providing broadband communication solutions including fiber and Voice over IP including local video to now 6700 subscribers.

We're adding about 60 per week currently. Next slide, please. I'd like to consider this basically a learning by failure slide so we've actually been in the ISP business since about 2000 offering dial-up through a third party and offering 50 kilobits per second dial-up service which seemed to be pretty adequate at the time but as you know with advancing technologies, that soon became something of the past.

In 2004 we decided to move forward with trying to provide better service and higher speeds by providing satellite-based data broadband by being involved with Wild Blue Telesat and Anik F2) launch which went-up. The second bird went-up in 2007. Unfortunately in both cases the beams filled-up way too fast and we couldn't add any more subscribers.

So we went from those efforts and then moved toward BPL which is broadband over powerlines in 2008. We were one of nine providers in the county trying this technology to advance broadband in a better way.

After two years of finally getting the technology to work in the electric space, unfortunately our one provider - the sole source provider of BPL products - filed Chapter 11 at the end of 2011. Next slide, please.

So here we sat. We were in the midst of trying to figure-out what we were going to do with respect to replacing what we had started with both satellite-based Internet as well as broadband over powerline Internet.

At the same time we were looking at changing the needs or addressing the needs that we have in the utility - the electric utility space - for communications and you know, finally no pun intended the light came-on and we understood that these two kind of married each other eventually.

So we contracted with power systems to look at both providing a backbone for our utilities systems as well as what we might be able to do with that afterwards so what you see here is a system map of our substations and how the ring fits from a fiber network between those substations and then the laterals that go-out to other substations so about 243 miles to the substations and then 1800 miles of primary lines that we then continued to build to.

That was all financed through the first ever RUS Electric work plan loan for smart grid purposes. Next slide, please, and why is automation in the utility space important to us?

We see advances in what we can provide to our member customers through advanced automation and technology that we couldn't do in the past with the limited resources that we had on the communications side so we're working-on distributed automation. We started building-out some of the things that we are going to be able to do in the future out on our grid.

The example in the graph on the right is an example of how an outage might be handled in the future with equipment that will actually be able to speak to each other in real time and it shows what an outage that would have been 45 to 75 minutes is reduced to one to five minutes with this new equipment.

We also can do improved energy efficiency and load control, save money through dynamic voltage controls, deal with distributed generation for folks who may have solar panels on their roof or small wind turbines in their backyard.

Deliver the information that we get off of our sub metering system as well as supervisory control and data acquisition and then eventually home automation and IoT at residential households and then probably one of the bigger things that we're working towards is helping farmers in that space where precision farming is becoming more and more the normal.

Next slide, please, so because we've built this big loop through our substations, we were able then to leverage that network for our backhaul and our board gave us the go-ahead to build-out the network for FTTX or FTTP so the build is a five-year build-out in Southwest Michigan which is over 1700 voice customers, 2000 by end of the year.

We expected to have solid profit margins and we're going to be actually profitable towards the end of next year. As I mentioned we're approaching 7000 data customers averaging about 60 new customers per week. I think we're up to about 1700 maybe even closer to 2000 voice customers as well.

We recently started adding local video customers so it's just an over-the-top version of just local channels. We expect that in 2020 we will start in the southeast corner of our service territory with also a buildout. Next slide, please.

This is just a typical comment that we've been getting unsolicited from our customer base where we get these on a daily basis sometimes several times a

day, “So as a 30-year veteran of the computer industry I’ve had to work with a lot of customers needing faster Internet speeds. I can say that as a professional there is no substitute for the speed of fiber. Midwest has made things better by providing faster speeds in the country than any other providers do in the city. That’s pretty amazing. Big kudos to you folks!” Again, current customer, fairly new. Next slide, please.

So lessons learned which includes the endless possibilities that we see in front of us so telemedicine is big on our radar. We think that that’s something critical and important to particularly the rural folks as more and more docs and more and more clinics move out of the rural area.

When we refer to white spaces, we actually share this electric territory with another investor on utility so in-between where we’re serving the investor on utility served electrically so our plan was to build just to our current electric customers but there’s these other folks that are right across the street or certainly close by that also need access to the same thing.

We’ve been active with working with schools in particular through the FCC program. We’re promoting adoption through regular meetings with our essential customers, working with some of the local municipalities with their bonding and again back to precision farming.

One of the things that we think that we should do or can do is give a single point of contact at a farm and then be able to wirelessly reach some of the outlying fields and farm buildings for them so they can have connections throughout their farming area.

So cash and net income positive by the end of 2018 in mature areas so the areas that we first built-out we’re exceeding 60% take rate and we believe

fiber is absolutely needed to preserve rural America and more and more cooperatives across the country are deploying. Next slide. I think that's it for me. I'll look forward to answering questions.

Karen Perry: Well, kudos to you Bob in Michigan, thank you very much. I am keeping track of the questions as they show-up in the sidebar column. One of the questions though is will these slides be available and I wanted to reiterate that the slides and an audio recording and transcript of this whole webinar will be available on our BroadbandUSA Website seven days from today under our events tab.

If you have additional questions, please put them in the question tab because we will be taking them after our third and final speaker, Gina Shuler. Gina is the Marketing Director for Home Telecom which is based in Monk's Corner, South Carolina, 30 miles west of Charleston.

Gina oversees the development, management and promotion of Home Telecom's products and services as well as managing the company's brand to ensure a positive customer experience.

In this role Gina works with a huge variety of customers and partners such as the growing retirement community of Cane Bay Plantation, automakers Mercedes Benz and Volvo and lots of consumers, schools, medical centers, town offices and small businesses.

Gina enjoys volunteering with the American Cancer Society. She holds a bachelor's degree in marketing from Clemson University and she's been a member of the Home Telecom team since 1992. Please welcome Gina Shuler.

Gina Shuler: Thank you, Karen. Next slide, please.

Karen Perry: Gina, will you speak up a little bit more, okay, so we can hear you?

Gina Shuler: Oh, okay. I'd like to start-off with talking about who we are. In 1904 Home Telecom was started by just providing telephone service to six buildings in Monk's Corner. One hundred and fourteen years later Home Telecom remains a family business. We are led by our fourth-generation CEO and we serve 27,500 addresses across the Charleston, South Carolina region.

We have approximately 185 local professionals and we offer a wide array of business and residential telecom products over copper, coax and fiber networks. We pride ourselves mostly in being a local company offering 24/7/365 customer support with three local offices and multiple local call centers and local technicians. Next slide, please.

I'd like to cover about where we are. You can see here the State of South Carolina with a green diagram around the areas that we serve. It's a service area of approximately 1100 square miles. We serve Berkeley, Charleston and Dorchester Counties of South Carolina. Next slide, please.

Here's a map outlining where we have broadband deployed currently. You can see the dark green areas of our service area is where we provide DSL and I'd like to point-out that a large part of that area is the Francis Merion National Forest as the DSL area is very widespread into our rural areas.

The cable modem areas are the lighter-green areas and then you can also see the red highlights as showing where our cable modem and our DSL areas overlap and then the brighter-green highlights outlines and displays our fiber network which is constantly growing and we also offer in-home Wi-Fi as well as free public Wi-Fi in various locations. Next slide, please.

I'd like to begin talking about our DSL over copper network. We began upgrading our dial-up customers in the late '90s to DSL over our existing copper infrastructure. Today we're offering up to 10 megabits per second using our OCCAM cabinets to approximately 3600 subscribers.

However, we're in the process now of shortening our loop length and transitioning to Calix to offer the true broadband of 25 meg up and 3 meg down. The issue that we're running into is adoption rates because it's an ongoing process to educate our older rural residents as to why broadband is important. Next slide, please.

Some of the topics that we cover when we actually go-out and meet with some of our older rural residents, we try to explain to them as we began shortening their loop length and offering higher broadband why that's important to them.

We try to explain to them that it could make telemedicine possible so many of these older rural residents they do not have transportation to their doctor's appointments so they can take advantage of telemedicine. They could have easy access to records materials, take advantage of distance learning opportunities as well as online college courses, shop online.

Many of these people do not have access to transportation so they could shop online as well as take advantage of public utilities offering to control usage and to save money. Next slide, please.

The one item that we have to cover with our rural residents is that it costs so much more money for us to provide broadband to the rural areas just because of the population density. Sparsely-populated areas cost even more and the

longer loops cause problems because of the distance from customers' homes from our network.

However, cost is also a huge struggle for our rural residents, therefore we offer a lower-cost Internet plans so that we call community connect and community connect provides Internet services up to five megabit per second to homes that have K-12 students and they're on federal assistance programs.

This just helps the rural residents out for Internet affordability. Next slide, please. Another way that we help our rural customers as far as getting access to Internet is that there was a partnership with the local library because many rural residents were 30 to 40 miles away from libraries with no access to Internet or could not afford Internet or computer.

So many local entities and organizations raised the funds to create this mobile library that's pictured and there's 30 stops within the rural territories that's powered with Wi-Fi from Home Telecom and inside of the truck there's actual laptops that are used that the residents can use for banking, healthcare, look for jobs or do their homework. Next slide, please.

We also offer cable modems over our coax network. We began offering this about the same time as DSL. Today we're offering speeds up to 100 megabit per second so approximately 67-6800 subscribers.

The cable modem network works-out well for us because it enables us to offer high broadband speeds in the areas that the coax network overlaps our copper network and it also helps in the areas that we've not yet deployed our fiber network.

But today we're testing the DOCSIS 3.1 system to be able to offer gigabit cable modem services to approximately over 9500 addresses. Next slide, please. Our fiber to the home network or fiber to the premises network in 2004 we launched into that business with the purchase of Daniel Island Media Company in a semi-rural area of Daniel Island.

At the closing there we only had approximately 1000 residential customers and very few businesses but we're continuing to grow our greenfield development as well as overbuild our aging copper plants so today we have over 84,000 fiber miles running directly to 14 approximately probably more closely to 15,000 addresses.

And in 2013 our partnership with West Rock and Nexton in Summerville, South Carolina enabled us to be the first gigabit Internet provider in South Carolina. This relationship is a neat relationship in that we can use this area as what we call our living lab.

We promote the fact that we'll offer the latest and greatest in this neighborhood before anywhere else so now we're preparing to test the 10-gigabit GPON access network into that living lab area. Next slide, please. In regards to economic development, many businesses and developers choose to locate near areas that have access to our fiber network.

We have large healthcare providers such as Palmetto Primary Care Physicians that's recently located in our Nexton development. There's digital and software companies such as SCRA that's in Nexton. Blackbaud is in our Daniel Island area and Booz Allen is a neat application.

The fact that they were recently they were Sparks before they became Booz Allen and they were going to build a new building and they decided that the

only way they would move is if they could remain on the Home Telecom digital or the Home Telecom fiber network which speaks volumes to the dependability that's seen in our network.

We also have automobile manufacturing migrating to our area. Volvo recently or is in the process of building a \$1 billion plant in nearby Ridgeville, South Carolina that's going to be offering 3900 jobs and Mercedes Benz has just finished building a \$500 million plant and brought about 1300 new jobs and it's all being served by our fiber network.

We also have mixed-use developments, Cane Bay Plantation as well as Nexton and about 40 others that have large residential neighborhoods in addition to businesses in that greenfield fiber area. Next slide, please.

In regards to lessons learned, we have learned that it's so important to hold broadband education meetings in rural areas to promote Internet adoption. There's so many misunderstandings as to why they need broadband when they have so many other financial burdens so we find that to be very important.

It's also important to keep the rural areas that are not yet capable of the higher broadband speeds, keep them informed of the build-out progress. It's very difficult from a marketing perspective of advertising and promoting your gigabit speeds when you have customers that are not yet capable of getting 25-meg speeds yet.

Partner with local developers when deploying greenfield fiber deployments, that is the best way to really grow your economic development and promote your fiber network and we've also found that it's important to educate your local economic development agencies of your fiber network so they can use that as a tool for business recruitment.

Many economic development agencies may not be aware of everywhere that your fiber network reaches so it's so important that you promote that back to the local economic development agencies. For more information I invite you to visit homesc.com or feel free to e-mail me with any additional questions that may not be asked during the question-and-answer session. Thank you.

Karen Perry: Thank you very much, Gina and thank you to Debra, Wes and Bob for sharing your experience and your insights. We're going to open-up the Webinar to questions. As I indicated before, you can put your questions into the question box on the right-hand side of the screen and I am happy to say that we already have a great stack of interesting questions.

So speakers, I'm going to ask you to give us some quick answers so that we can get through as many of them. Wes and Debra I'd like to start with you and talk a little bit about the Chewelah project and Spectrum and there's a few questions here which I think I can group together.

One of the questions is what are the top reasons why Spectrum chose to enter the market and to serve the area in Chewelah that you identified and a related question is either how did you fund that upgrade or conversely did Spectrum get any financial assistance from the government or from any other organization in order to fund the upgrade or was it completely a commercial investment? Debra and Wes, can you help us with those questions?

Debra Hansen: I'll take it as best I can. I can't speak for Spectrum because they're a private industry. We've very happy that they invested in our community. From what I know they did not get any federal funding and it was just a business case model to do so and so I don't know if I guess I really we can't answer for that

Karen because they chose, I mean, they came to the meeting and then deployed but I don't know what the thought process was.

Karen Perry: My understanding is that you did make it more attractive by indicating that there was business there.

((Crosstalk))

Debra Hansen: Oh yes, we helped them understand ...

((Crosstalk))

Karen Perry: ... putting in front of them ...

Debra Hansen: Yes, I'm sorry. Yes, we helped them understand where there was need especially that separated community. They may not have known that that was a community to go into so that we helped map-out for them some of the need.

Karen Perry: Okay, we did speak to Spectrum about being on this call and couldn't identify a speaker for today but they did indicate that they would be happy to join us for a future Webinar so you might have to wait months but we can follow-up and get more answers and I don't believe there was additional funding.

I believe it was a business case decision from what I understand. I have some additional questions for Bob and these are actually even bigger, well let me I'm going to start you with an easy one Bob and then I'm going to go into the really big picture. In your when you put the fiber in, was it underground, overhead or both?

Bob Hance: Actually it was both so where we have electric distribution overhead, we stay overhead. Where we have electric distribution underground, we go underground.

Karen Perry: Okay, now I'm going to ask you the big picture question. If a rural electric coop is interested in becoming a broadband service provider, what is the first step? What are the most important questions they need to answer and how are companies making sure that their electric customers are not subsidizing their entry into broadband?

Bob Hance: Okay, a three-part answer to a three-part question so taking the first part first, vital to any time that you're entering into any type of business, you should do a feasibility study which includes market kind of information so you really need to get to your if you're a coop get to your membership and ask them if you provided this level of service, would they be interested in taking it?

And of course that goes into the business modeling then and kind of you get to figure-out whether you can actually make it work financially. I'm thinking about the last question now. What was the second question?

Karen Perry: Well, the last question was about subsidizing and the question one was just like how well maybe no - you don't have to speak for all electric coops - but what made this a good investment for you? How come you chose to go into the broadband field?

Bob Hance: Well, the real reason that we chose to go in is because of member inquiry and request. We have district meetings usually seven to nine district meetings per year where we invite our membership to attend and our board members are there and for the last several years the only thing that the membership would

really ask us to talk about was whether or not we had the ability or could find the way to provide them a better level of broadband service.

So it was ultimately through those conversations with our membership and then ultimately financial and feasibility study that showed that we could actually make it work if we had I think it was a 40% take rate. That was the impetus that the board had enough information to move forward so go ahead, sorry.

Karen Perry: And what about the relationship from a business case perspective between the electric business and the broadband business? Is there a need to keep those finances separate or is it all part of your service profile?

Bob Hance: It tends to be all part of the same business profile because actually all of the fiber assets are owned and held by the electric side of our business so there's very little of it that's actually financed at all by the broadband part of our business which is actually a division, not a subsidiary of our organization.

So every electric customer that's a member that takes communication services from us still is considered a member and it's not for profit so there really wasn't any change in the way we are managing the business going forward.

It got a little bit complicated as we started adding non-members so folks that weren't electric members of ours who have asked to serve them as well and it's becoming more and more of an issue for us moving forward so those are actually non-members and would be held in, you know, a counting way that shows that that doesn't go towards their patronage or any patronage.

Karen Perry: Sounds like a topic we could dig into for a lot more time than we've got today. Gina, I'm going to ask you a question. You indicated that in your role

you do spend a lot of time educating consumers and whether that's rural customers, regular consumers or economic development partners or in all different types of people in the area, what are the methods that you use to educate consumers in rural areas about why they should get your broadband and get online?

Gina Shuler: Well, luckily, we have great relationship ...

Karen Perry: And speak as loud as you can.

Gina Shuler: ... luckily we have a lot of great relationships with local political leaders and they are very involved with their churches in the rural areas so we depend on them to invite us to church meetings or local community meetings and invite us in as speakers. So that's worked-out for us.

Karen Perry: How about will you tell us a little bit more about how did you fund the mobile library to provide Wi-Fi?

Gina Shuler: Well, that was actually a project of the Berkeley County Library. They had several friends of the library and they did a lot of fundraising of the board of directors of the library so it was through years and years of fundraising that made that happen and then with a partnership with us we were able to help them out with the Wi-Fi.

Karen Perry: Okay, there's a number of questions here that I think are in the pretty big category here. Let me ask and I'd like maybe Debra and Wes to kind of answer from the community side and then maybe Gina and Bob can answer from the provider side, the question is "what's the first step?".

So a number of folks indicate that they're from rural areas that they would like to see more broadband in their areas and they're really trying to figure out how to get this conversation started but beyond that, you know, how to get you know, backhoes in the ground and get more fiber built-out and other types of technologies.

So Debra and Wes from a community perspective how did you get things started and move things forward and then Bob and Gina I'm hoping you can answer the same question?

Wes McCart: So for it was trying to figure-out how to build the business case for the different providers that are out there to do it so bringing the community together and finding-out okay, like in Chewelah's case, how many residents are in a certain area? How many business possibilities can you get hooked-up?

What are we currently paying if they have service at all and it was bringing all those essentially building a business model for the providers to hook onto and go from there?

Debra Hansen: So I'll add a little bit there too. You know, one of the things that's very difficult I would think to identify would be small businesses in people's homes. About 40% of our economic development is people working out of their homes and I don't know that a provider would be able to understand that as well so us knowing the community and identifying those helps quite a bit.

In terms of where to start, from what I've been able to tell broadband touches everybody in every organization, you know, medical and education and library and so getting all of those people in a room to start the conversation

helps because you're going to find funding and projects and ideas for pursuing this kind of work with all different agencies.

Karen Perry: Thank you very much. Let me before I had it back to Gina and Bob, somebody also asked whether the BAT team - the broadband action team - is a formal organization that was legislated or is if it's an informal organization?

Gina Shuler: It's informal. We started it with the fire episode that we had, just started gathering people together. It's not funded in any way. We have some one-time funding that we got from our institution to hire our BAT coordinator who's phenomenal so having somebody that can you know, keep people on track in minutes and making things move forward is very helpful but it is truly just a local passion to solve the problem.

Karen Perry: Thank you, Gina and Bob, what attracts you to invest and does it take incentives or what do you look at when you're trying to decide what you're going to build-out next.

Bob Hance: Well, I'll take this. First, we have great examples in particular with our non-electric folks who are asking us to provide service with them and we really liken it to what likely was the spearheading kinds of things that happened back in the '30s when folks wanted electricity brought-out to the rural space.

So we have these what we refer to even in our own build throughout our service footprint area champions and we encourage folks that are not electric members of ours to do the same kinds of things so very organic, very grass roots-like.

We had a local lake that wasn't served by us electrically, approaching us and said we would like it too. It's not that far from where we live and we said this

is what you need to do so build us a business case in this sense. You're going to have to contribute to the CapEx and we need about 50 to 60% take rate.

You get that many people signed-up that agree to pay something towards the CapEx and then we will build it. It took them about a month and they came back with both of those accomplished and it was all done very locally by a couple of folks that just went door-to-door.

Karen Perry: Door to door. Gina what's your experience been?

Gina Shuler: Well, ours is a little different and the fact that we are living in an area or in a region that's growing exponentially so when there's development - greenfield development - that come onboard, usually they put-out an RFP and we have large competitors around us such as Spectrum, Xfinity, AT&T fiber and we go in there and we, you know, present our case as to why we're the best fiber network provider around.

And in most cases we're the only one that can do a complete fiber network as well as having local offices, local technicians. We go to church and school with these people so ultimately we normally win and that's the case for us.

Karen Perry: Gina and Bob, somebody else asked that they've been hearing a lot about 5G service and in particular about some 5G testbeds in L.A. and Sacramento and other cities and some people have talked about 5G as being a game-changer possibly even a game-changer for rural. Does this technology offer - is a game-changer - for rural or not? Do you have any comments about it?

Gina Shuler: It's not something that we're looking into at the moment. I don't know Bob may be looking into that.

Bob Hance: At the risk of offending others that might be on the Webinar, we think we know from the big providers that rural areas for 5Gs is not on their radar. There are plenty of things that are in their way to provide 5G even out of the urban areas into suburbia. What I do know about 5G is that it's going to require a lot of fiber to make it work.

Karen Perry: Under all good wireless is always wires or fiber in this case. Somebody else has asked if they could contact some of the speakers to ask for more information or to follow-up with possible investment opportunities.

Speakers, I'm sure you would welcome any contact so I will ask if you do want to get in contact with any of the speakers, you can write to me at broadbandusa@ntia.doc.gov and that information is on the PowerPoint and we will respond and we will connect you directly to the speakers if their numbers were not here.

In order to close it out, let me just ask the general questions really are just about how to move the ball in terms of rural broadband. You have shared a lot of wonderful ideas and suggestions already but let me ask us to go once around the call and if you have one more suggestion or bottom line you'd like to share, would you please let everybody know? Wes and Debra, can you start us off?

Debra Hansen: Well, I think if you can find what the special interest is of the people that you engage in your meetings and in your groups and task them to find a way to connect, we've connected public safety with broadband and connected with fire departments and so it's getting people to care about it figuring-out how to find funding is my advice.

Wes McCart: So I think I'll add to that that I think that one of the keys is being able to measure your success a little at a time. A lot of people, you know, they want broadband and they want it to all happen at once and you have to keep the folks that are at the table with you in a mindset that it comes in little steps and itty-bitty little wins at a time have to be touted as look, we made this step.

Now let's make the next step and it's a little bit bigger but we're moving in the right direction so that you don't become stagnant.

Karen Perry: Sounds good to me. Bob?

Bob Hance: I would say if you do start a project, be prepared for that avalanche that is going to come once you start delivering that level of service because the one thing that we've had the most difficulty managing is around that expectation and I think someone just mentioned that that everybody wants it and everybody wants it now.

Nobody wants to be last, everyone wants to be first and in our case we fully expect that we're not going to be done building for a long time because there's just that kind of demand out there.

Karen Perry: And Gina?

Gina Shuler: I would just say again don't be afraid to tell your story. We all have a great story to tell and especially for those of you that may be on the call that's like telecom and competing with some of the bigger companies, it's very important as a local provider to tell your story and be sure to tell all the benefits that come with fiber and how being a local provider you can meet those needs of the area much better than a larger provider.

Karen Perry: Well, I wanted to thank all of our speakers and I wanted to thank all of our participants for your questions and your comments. As we conclude today I'd like to remind you that the BroadbandUSA practical conversations Webinars are scheduled for the third Wednesday of each month at 2:00 pm Eastern Time and you can join NTIA again on Wednesday, June 20th for a Webinar on "Smart Agriculture: Increasing Productivity through Technology". Thank you all and have a wonderful afternoon. This is the end. Bye bye.

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