

1                   **TOBACCO REGION REVITALIZATION COMMISSION**

2                                   701 East Franklin Street, Suite 501

3                                   Richmond, Virginia 23219

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7                   **Research and Development Committee Meeting**

8                                   Wednesday, January 3, 2018

9                                   10:00 o'clock a.m.

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                                  Homewood Suites

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                                  Richmond, Virginia 23219

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1     APPEARANCES:

2     The Honorable Kathy J. Byron, Chairman

3     Ms. Mary Rae Carter

4     Ms. Rebecca Coleman

5     The Honorable Daniel W. Marshall, III

6     The Honorable Edward Owens

7     The Honorable Frank M. Ruff

8

9     COMMISSION STAFF:

10    Mr. Evan Feinman, Executive Director

11    Mr. Christopher E. Piper, Deputy Executive Director

12    Mr. Timothy S. Pfohl, Grants Director

13    Ms. Stephanie S. Kim, Director of Finance

14    Ms. Sarah K. Capps, Grants Program Administrator,  
15        Southside Virginia

16    Ms. Michele Faircloth, Grants Assistant,  
17        Southside Virginia

18    Ms. Stacey Richardson, Administrative Supervisor

19

20    COUNSEL FOR THE COMMISSION:

21    Ms. Elizabeth B. Myers, Assistant Attorney General  
22        Richmond, Virginia 23219

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1 January 3, 2018

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DELEGATE BYRON: Good morning, I'm going to call the Research and Development Committee meeting to order and ask Evan if you would please call the roll.

6

MR. FEINMAN: Yes, Madam Chairman.

7

Delegate Byron.

8

DELEGATE BYRON: Here.

9

MR. FEINMAN: Senator Carrico.

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SENATOR CARRICO: (No response).

11

MR. FEINMAN: Ms. Coleman.

12

MS. COLEMAN: Here.

13

MR. FEINMAN: Ms. Carter.

14

MS. CARTER: Here.

15

MR. FEINMAN: Delegate Marshall.

16

DELEGATE MARSHALL: Here.

17

MR. FEINMAN: Delegate Morefield.

18

DELEGATE MOREFIELD: (No response).

19

MR. FEINMAN: Mr. Owens.

20

MR. OWENS: Here.

21

MR. FEINMAN: Senator Ruff.

22

SENATOR RUFF: Here.

23

MR. FEINMAN: You have a quorum, Madam

24

Chairman.

25

DELEGATE BYRON: Thank you. I notice that

1 Southwest is absent, it must be a little colder than it is here.

2 A couple of quick things I want to bring up in the  
3 beginning. First, I want to make a brief announcement that  
4 Speaker Howell, who now is retiring this year, had a pretty  
5 serious heart attack last night, of those of you who are not aware  
6 of it, and he's in ICU, he had surgery, open heart surgery last  
7 night. He did well, lots of people are praying for him and still  
8 asking for your prayers and privacy as he continues to go  
9 through recovery, apparently it was a pretty massive attack, but  
10 he is doing well.

11 We have a great opportunity today, and I'm real  
12 excited about this, and we've been talking about broadband Last  
13 Mile for some time and the tremendous need for it and all the  
14 different opportunities. I was thinking in the last couple of days  
15 about all the different good investments that the Tobacco  
16 Commission has made over the years, 20 years that I've been on  
17 the Committee, and we started out with a lot of infrastructure  
18 needs that needed to take place in the Tobacco Region, water  
19 and sewer, industrial parks, and the backbone for the broadband  
20 that has really been a tremendous effort and asset to our region  
21 and megasites and workforce training and education and recently  
22 held telehealth.

23 I was thinking to myself in order for us to really  
24 continue down that positive path that leads to vitalizing our  
25 communities, without good broadband and activity, it basically

1 diminishes a lot of the investments we've made if we don't insure  
2 that the residents and the businesses will have an opportunity to  
3 get services through the internet, such as telehealth and other  
4 needs like that are done. So, we have some critical investments,  
5 I think, yet to be made.

6 The Committee will evaluate the applications that  
7 have come forward already with the monies that have been  
8 provided, and this is kind of what my plan of action is for our  
9 Committee meeting today, so you'll have an understanding of  
10 how this will go. We'll start out with possibly some comments  
11 from our Executive Director. We will start with the applications,  
12 that are wire applications first, and then separate and do the  
13 wireless secondary after that.

14 We're going to start individually with each request  
15 that comes forward and have Tim read the summary of what he  
16 has composed for us, and then ask the applicant to come  
17 forward. And if you have a proprietary request or need, to state  
18 that and sign a form that we have. And if need be, we will go  
19 into executive session for that particular reason. We will do each  
20 application, and then looking at mapping and answer any  
21 questions that Committee members may have, so you feel very  
22 comfortable with what we're doing.

23 And then I think the most critical piece is we will not  
24 vote today on these applications, but we will come back next  
25 Tuesday, and according to the Executive Director, we will slip a

1 meeting in, it will be a brief meeting just allowing you some more  
2 time to get that decision made and we'll come back just to vote  
3 on the project next Tuesday. So, if anyone has any questions  
4 about that process, let me know. I've already talked to the  
5 Chair, who's not able to be with us today, the Chair of the  
6 Commission, Terry Kilgore.

7 So, with that, do you want to make any comments,  
8 Evan?

9 MR. FEINMAN: Yes, thank you. A couple pieces of  
10 just housekeeping. I'll remind you we had some unadopted  
11 meetings from the last meeting. Also, we only heard from one  
12 applicant, Comcast, asking that they have and much of their  
13 information or application be kept proprietary. The Code requires  
14 for us to go into executive session, that a request for proprietary  
15 information be discussed in executive session be made in writing.  
16 It's a little silly, but there is a pad and pen on the podium there.  
17 And so if when you are called, you'd require that some things be  
18 kept proprietary, if you would jot a note to that effect and hand  
19 it to literally any of us, that will suffice. We're just going to stay  
20 on the right side of the law here.

21 So, with that, Madam Chairman, let's go ahead with  
22 the minutes.

23 DELEGATE BYRON: Has everyone had an opportunity  
24 to look at the minutes from September 19<sup>th</sup>, 2017? Any  
25 changes?

1                   SENATOR RUFF: I move that they be accepted as  
2 sent by email.

3                   MR. OWENS: Second.

4                   DELEGATE BYRON: We have a motion to accept the  
5 minutes as stated and seconded. All in favor, say aye. (Ayes).  
6 Any opposed? (No response). Thank you, those are approved.

7                   I'm going to ask Evan, if you can kind of separate  
8 these out.

9                   MR. FEINMAN: Madam Chairman, I believe you had  
10 discussed wanting to do the wire projects first?

11                  DELEGATE BYRON: Yes.

12                  MR. FEINMAN: Tim, why don't you just start at the  
13 top and down.

14                  DELEGATE BYRON: We're only do one at a time, don't  
15 go through every summary like we did for some of the other.

16                  MR. PFOHL: Thank you, Madam Chairwoman. Just a  
17 little table setting here. Back at your meeting in May in  
18 Appomattox, you directed Staff to develop guidelines and  
19 schedule the cycle that we're here to discuss today. The  
20 Committee set aside \$10 million out of the approximately \$20  
21 million available R&D budget to address these Last Mile projects.  
22 Staff would like the record to note that we received a  
23 tremendous amount of assistance from the Center for Innovative  
24 Technologies Broadband team, as well as the folks at the  
25 Department of Housing and Community Development that runs

1 the Virginia Telecom Initiative, which is a General Assembly  
2 funded Last Mile program.

3 We worked closely with them to develop guidelines  
4 that were published this fall, and we set a November 15<sup>th</sup> due  
5 date. We received 14 requests, with a total request amount of  
6 18.4 million.

7 All of the proposals generally comply with the  
8 guidelines that were published. And we provided in the staff the  
9 Word document that we sent out to you just some summary  
10 metrics and descriptions of each project. We also put together  
11 the spreadsheet that describes each one of the projects where if  
12 there's a private co-applicant that's involved with the project, we  
13 use some basic metrics to give some apples-to-apples  
14 comparison to each of the 14 projects, starting with how many  
15 premises they propose passing, take rate that they were  
16 projecting, how many subscribers that take rate would result in,  
17 the cost to the Commission per premise passed per subscriber.  
18 There's a column that says speeds uploaded and downloaded.  
19 That's really a starting point for entry-level service to see if they  
20 complied with the ten download and one upload speeds that were  
21 the minimum that we put in the program guidelines.

22 The Word document gives much more description of  
23 higher tiers and levels of service and what the pricing would be.  
24 For instance, there's in a lot of these projects, businesses  
25 premises passed and there are special pricing packages and



1 service levels for businesses, and that's described in greater  
2 detail in the Word document.

3 There are three wireless projects, that would be  
4 Dinwiddie, Halifax, and Pittsylvania. All the other ones are wire  
5 solutions, so we'll go ahead and start with Appomattox.

6 There are two proposals from Appomattox. The first  
7 one is Shentel Broadband Expansion to Vera. That's a  
8 community going up Route 24 just past Appomattox Courthouse  
9 National Park. There are about 100 to 110 residences in Vera.  
10 Shentel is proposing a 30-percent take rate, which would  
11 translate to 30 anticipated subscribers at a per-subscriber cost to  
12 the Commission of \$1,500.

13 Shentel is proposing to roughly equally cost share with  
14 the Commission the costs for fiber materials and installation,  
15 while covering all costs for engineering, permitting, customer  
16 premise equipment and installation from its own funds. Standard  
17 monthly pricing for internet service begins at \$50 for five  
18 megabits download, \$60 a month for ten megabits download,  
19 that was the standard for this program, and ranges up to \$200 a  
20 month for 100-plus megabits per second service.

21 SENATOR RUFF: Would you repeat that last one.

22 MR. PFOHL: The packaging, \$200 a month for 100  
23 megabits and above service.

24 SENATOR RUFF: In your speed upload, download,  
25 that's ten one, it does not say anything about a hundred.

1 MR. PFOHL: That's in their proposal. We started with  
2 a minimum level of service on the spreadsheet in their proposals  
3 and the Word document, we try to cover what their pricing would  
4 be at higher levels of service.

5 SENATOR RUFF: They could go to a hundred down  
6 and what up?

7 DELEGATE BYRON: This is kind of a guideline, but  
8 we'll bring each of them up to explain it if you want to ask them  
9 directly those questions.

10 Do we have anyone here from Appomattox County?

11 DELEGATE MARSHALL: The ten up and one down, in  
12 our proposal that we sent out, did we put a minimum request  
13 and did we say that this is the baseline, or did we just ask them  
14 to do, to tell us what they can do?

15 MR. PFOHL: Ten over one is kind of the minimum  
16 level of service we're looking for.

17 DELEGATE BYRON: That's what the DHCD and that's  
18 what they're using for grant money, that's the base level of  
19 service.

20 MS. CAPPS: Do I need to correct that?

21 SENATOR RUFF: I wanted to know what the  
22 capabilities are?

23 DELEGATE BYRON: Chris Kyle is here from Shentel.  
24 Is there anything proprietary there that we're going to be talking  
25 about?

1 MR. KYLE: No, I think the easy way for us to answer  
2 this is that all of our pricing and products are on the website, and  
3 I'll send it directly to you. But speeds in the future higher than a  
4 hundred. Technology is in place, will go at whatever speed is  
5 higher than a hundred.

6 I'm Chris Kyle, Vice President of Shentel.

7 MR. FEINMAN: On the far right on your spreadsheet,  
8 the upload and download speeds and monthly subscriber costs,  
9 that's for the minimum package that's been offered. Many of the  
10 proposals will have higher speeds or higher cost options.

11 MR. KYLE: Exactly. In our pricing, we put the  
12 standard internet, but we do package pricing and then the cost  
13 for service comes down.

14 SENATOR RUFF: Is Shentel already in Appomattox?

15 MR. KYLE: Yes, sir.

16 SENATOR RUFF: How much of the county are you  
17 covering now?

18 MR. KYLE: We have the town completely covered, but  
19 we're trying to edge out into the county.

20 SENATOR RUFF: What did you use as a guide for  
21 purchasing take rate?

22 MR. KYLE: Having to sit down separately and talk  
23 about our take rates that we see by community, but this is based  
24 on our historical averages. We've got a lot of experience, we're a  
25 110-year-old company. But specifically within, within this field,

1 the cable technology that we are deploying, we've got small  
2 communities all over Virginia, and we based all of this on our  
3 experience in Virginia and dating back to pre-2007.

4 DELEGATE BYRON: I don't know if it is providers  
5 specific, but do you offer special rates to low income, some of  
6 them have packages that once the fiber is in the ground they are  
7 able to also address people that can afford this?

8 MR. KYLE: At this time, we don't have a package like  
9 that.

10 DELEGATE MARSHALL: Do you have a package for K  
11 through 12 to get your service to students?

12 MR. KYLE: That's something we're looking at and  
13 working on. We haven't rolled it out publicly yet right now.

14 Going back to Delegate Byron's question, we have  
15 also just rolled out what we call a pre-paid internet, and I can  
16 give you that pricing, also, and it touches a lower price point for  
17 some lower speeds, a lower price point for low income  
18 individuals, if that's what they want.

19 DELEGATE BYRON: Aren't there some areas that have  
20 a space that's being used in communities for education purposes?  
21 I don't know that they are specific to just areas that don't have  
22 it, but they may overlap? Do you know anything about that?

23 MR. KYLE: We have some of that equipment. We've  
24 been testing it, but it's not something that we're ready to roll  
25 out. It's not in the pipeline, but we're testing it right now. As it

1 relates to K-12, and I can provide the exact number, but we  
2 probably do over 20 school systems in the State of Virginia. It's  
3 something that we do very well in, and it's a big area of focus for  
4 us.

5 DELEGATE MARSHALL: The packet that we've got, I  
6 tried to get this to download, but do we have that available?

7 MR. KYLE: I don't know if you're connected.

8 DELEGATE MARSHALL: Tell me what I'm looking at.

9 MR. KYLE: We have cable and fiber in, in Appomattox  
10 County in this direction and going this way.

11 DELEGATE MARSHALL: Why fiber as opposed to  
12 wireless?

13 MR. KYLE: I think that both technologies have pros  
14 and cons. I think that for us and for what we're talking about  
15 here, we believe we can deliver a superior user experience, but  
16 it's at a higher cost to build. We believe that there are some  
17 benefits in terms of reliability also, but mostly in terms of the  
18 speeds that we can provide.

19 DELEGATE BYRON: Are they receiving television  
20 service now?

21 MR. KYLE: In that community, no, but they will get  
22 television and telephone, telephone, in addition to internet, if  
23 they want it from us. We'll be able to deliver multiple different  
24 services which we think are important to the community by going  
25 through this HS hybrid fiber technology, which is wireless.

1 MS. CARTER: Years ago, I served on a public service  
2 authority and when we were looking at areas in our county to put  
3 sewer and water, we did surveys and talking about income and  
4 average income and all the demographics. Do you all do  
5 surveys, because I would think that if your estimated take rate  
6 isn't what you're looking at, it's going to cost even more for  
7 people that do get this, is that correct?

8 MR. KYLE: No, I mean it's not going to cost any more  
9 regardless of the take rate. Shentel is a company that annually  
10 generates over \$600 million in annual revenue, so this is not a  
11 project that if the take rate goes up 10 percent or down 10  
12 percent or if nobody takes it, which we don't think is going to be  
13 the case, I can guarantee you Fiber Broadband Service will still  
14 be available, not just five years from now, but multiples of five  
15 years from now in that area. And the cost per resident will not  
16 change regardless of the financial footers that Shentel has built  
17 over its 110-year history for a Virginia-based company.

18 Now, you are absolutely right with surveys, we are a  
19 big, big believer in surveys, and I think the next step of this and  
20 my hope is more than 30 percent over time, and it may take five  
21 years to get over that 30 percent. But that is what we believe,  
22 what I have put on that application, is what we've seen in terms  
23 of a take rate, that increases over time, and I think by putting  
24 this in, not only does it appeal to the people and some of them  
25 have the challenges that you mentioned, but it would make this

1 area more attractive and maybe we'd get some new investment  
2 in houses with a younger demographic moving in. We do have a  
3 commitment.

4 When I did this application, we wanted it to be of no  
5 risk to this group. And we wanted to be very conscientious in  
6 what we put down to be able to a hundred percent live up to so  
7 there's no risk to you and for that community to be served, not  
8 just now, but in multiples of five years, is not a long period of  
9 time coming from our 110-year-old company.

10 These people are going to be served and served well,  
11 not just with a network extension that sits by itself, but  
12 something that's networked into our 5,000-mile fiber network  
13 that we've got covering the State of Virginia. They're going to  
14 get the same services that all of our other customers do.

15 SENATOR RUFF: Is there any other charge for the  
16 homeowner, are there equipment charges or any other factors?

17 MR. KYLE: There can be, the homeowner, if we're just  
18 talking internet, the homeowner can rent a cable modem from us  
19 or they can purchase their own, but you're talking \$50 to \$100  
20 probably if they buy it themselves. We can provide the  
21 equipment, and I think the rentals are approximately \$10 a  
22 month, I can give you the exact, and that's whether it's wire line  
23 or Wi-Fi, Wi-Fi or non-Wi-Fi.

24 DELEGATE BYRON: That's a good point. Some of the  
25 providers have specials, this is the standard pricing that's online.

1 Would Shentel consider, just like they do with a lot of new  
2 promotions they have going on, special pricing for a defined  
3 period of time that would enable people to get a bundle based on  
4 this contract?

5 MR. KYLE: As you alluded to, we do that, and they  
6 would get all of the standard bundle promotions that we would  
7 do across the company. If you wanted something specific to this,  
8 to this neighborhood, because of the, I mean this is new for us,  
9 we've never applied for a grant before. We could consider that if  
10 that's important. One thing that's important to us is that we are  
11 equitable and fair consistently with all of our customers and we  
12 just need to talk about how we would do something unique.

13 DELEGATE BYRON: I think that that would certainly  
14 mean something as far as being able to get more subscribers  
15 online.

16 MR. KYLE: A lot of times if we're going to do a  
17 neighborhood, we'll go through and say no install fees or  
18 something like that, because we want to work very hard to get  
19 the take rate up as quick as we possibly can.

20 DELEGATE BYRON: Are you capable of doing that for  
21 a set area like the neighborhood that you're talking about? Are  
22 you capable of doing it with a grant, can you do something like  
23 that?

24 MR. KYLE: We'll send a street team through to knock  
25 on every door. There'll be some individual pricing and



1 promotion. It makes sense to us the more we can bundle and  
2 group people that want to get installed upfront, we'll send  
3 installers in there and do it at once.

4 DELEGATE BYRON: And then, of course, the question  
5 that most people may ask, and I think we may know the answer,  
6 has it been cost prohibitive to go in there in the past, that's why  
7 these people are not being served?

8 MR. KYLE: That's right.

9 DELEGATE BYRON: All right, any other questions?

10 MS. COLEMAN: Do you scale up their household, if  
11 you had more, would that not affect the take rate and the cost  
12 per the subscriber.

13 MR. KYLE: If I can answer that, that's the great thing  
14 about our technology, the cost actually doesn't go up as more  
15 people take a higher speed.

16 MS. COLEMAN: The cost that you're describing does  
17 not go up?

18 MR. KYLE: Oh, I thought you were talking about the  
19 cost, the cost per subscriber.

20 DELEGATE BYRON: I would think that personally that  
21 that is more like getting a special package on your TV service,  
22 that the people are willing to pay more for higher speeds but the  
23 cable that's on the ground is capable of delivering several  
24 different options.

25 MR. FEINMAN: When we took a look at these and at

1 the direction from this Committee, we were looking at, was  
2 primarily where can somebody get something we will call  
3 adequate broadband service when they don't currently have the  
4 option. While we have the information, and I'm sure the  
5 applicants can tell us more about premium level broadband  
6 services that they could also get if this project were built, most of  
7 our focus is on can we get broadband to people that currently  
8 don't have it, so that has been the lens through which much of  
9 this has been evaluated.

10 I would encourage the Committee though to think  
11 about the value, and this is a terrible word for this, future proof  
12 degree to which some systems can be upgraded and others can't.  
13 That is something, that is a downstream consideration, but  
14 mostly what we're looking at right now is can somebody who  
15 can't get on broadband internet get on broadband internet now  
16 after the provision of this service?

17 MR. KYLE: I think future proof is important and have  
18 a technology that serves for a long period of time, not just five  
19 years. We wouldn't be deploying the technology we're deploying  
20 here if we didn't think it would serve the future and without  
21 getting into too many details. We're talking a hundred megs  
22 pricing and services here. The technology that we're putting in  
23 can certainly deliver speeds in multiples of that. We're going to  
24 use this technology in different ways. To give you one example,  
25 we are a wireless provider in Virginia and we're going to use this

1 technology to backhaul wireless traffic. That shows you one  
2 more example of the capacity that this technology, this HFC  
3 technology is capable of, and this is coming from a company that  
4 has a very long-term horizon, and we commit to you that what  
5 we put in this ground, will have a life that far exceeds anything  
6 that this Committee is thinking of right now.

7 DELEGATE BYRON: Delegate Marshall.

8 DELEGATE MARSHALL: My question, first of all, to the  
9 Staff, Tim, if I look at your spreadsheet, and I don't want to  
10 assume anything, do I assume that's businesses, single family  
11 homes, public projects?

12 MR. PFOHL: Yes, those are households and  
13 businesses, and so forth, and I believe this one is entirely  
14 residential households. You'll see here in some of the  
15 descriptions that the applicants have broken out in a number of  
16 businesses pass and have a separate take rate and pricing for  
17 businesses versus residential.

18 DELEGATE MARSHALL: And so if you pass an  
19 apartment project that has got 25 units in it, Chris, when you the  
20 take rate, is the take rate higher when the pass goes by a  
21 business versus residential, or is it the same?

22 MR. KYLE: I'd have to think about that, for the map  
23 that you're talking about, a business would count the same as a  
24 home in terms of the service, but we certainly, we sell all other  
25 business, and if there were businesses in here, we could deliver

1 that service and we would facilitate that. But I think in terms of  
2 the math, the short answer is no. A business counts equally in  
3 terms of take rates as a business, if I understand your question.

4 DELEGATE BYRON: Thank you.

5 MR. KYLE: Thank you for your time.

6 DELEGATE BYRON: Chris, do you want to come back,  
7 we have another one for you. Chris Kyle, Shentel.

8 MR. PFOHL: We're going to talk about the Bedford,  
9 we're going to jump over the second Appomattox proposal, and  
10 we'll talk about Bedford County's Chapel Woods Drive request, a  
11 \$50,000 request. Shentel would extend broadband to 40 homes  
12 and offer a package of services. Shentel's co-applicant to serve  
13 40 residences within and along the proposed routes to the Chapel  
14 Woods Drive, in Bedford County, southwest of the D-Day  
15 Memorial. The project would extend fiber 1.5 miles, overlashing  
16 one mile and trenching a half-mile to reach Chapel Woods, as I  
17 said, about five miles southwest of the D-Day Memorial on the  
18 U.S. Route 460 Bedford Bypass.

19 The applicants did not estimate a take rate for the  
20 project area's 40 households. Based on the information in the  
21 application, it appears that a 50-percent take rate is estimated,  
22 which would result in per-subscriber cost to the Commission of  
23 about \$2,500 to serve 19 or 20 households. Shentel proposes to  
24 approximately equally share with the Commission the costs for  
25 fiber materials and installation, while Shentel will cover all costs

1 for engineering, permitting, customer premise equipment and  
2 installation from its own funds. And again, their standard  
3 monthly pricing for internet service begins at \$50 a month for  
4 five megabit downloads, \$60 for the ten over one, that is the  
5 standard for this program, and ranges again up to \$200 a month  
6 for 100 megabit downloads.

7 DELEGATE BYRON: Have you ever gone to Bedford  
8 County with this proposal before? It seems like a small  
9 investment for them to make.

10 MR. KYLE: We have not. I think that's one of the  
11 benefits of why we're all here today and it started us thinking  
12 outside the box and reaching directly out. We've gotten several  
13 requests from homeowners in this community in the past, and  
14 one or two helped us focus on this, but we've had some good  
15 conversations with Bedford County about this. This is a project  
16 we really want to do. We need a little bit of help on the  
17 economics.

18 DELEGATE BYRON: Do we have a map of this?

19 MR. PFHOL: Chapel Woods network extension.

20 DELEGATE BYRON: Unless there's any specific  
21 questions, we'll go ahead and move on to the next one.

22 MR. PFOHL: Jumping back to Appomattox County, we  
23 have a request just shy of \$980,000 for the Central Virginia  
24 Electric Cooperative Members' Fiber Broadband Project. This is  
25 the first of three electric cooperatives, and they submitted the

1 applications in this round. What they're proposing in all three of  
2 the electric co-op projects is that the co-op would cover the costs  
3 of connecting their electrical substations with 144-strand pretty  
4 robust fiber. They can use that for monitoring and security for  
5 their electrical substations. It would also serve as a backbone for  
6 connecting members along those fiber routes.

7 In this particular case, the co-applicant with  
8 Appomattox County is Central Virginia Cooperative. They're  
9 based in Nelson County and have a long-term plan to provide  
10 broadband in 14 separate Virginia counties in their service area,  
11 which includes parts of five Tobacco Region counties. CVEC  
12 proposes service of 100 megabit upload and download speeds at  
13 costs starting at \$50 per month, \$80 per month for a gigabit  
14 service. They would go to private and federal sources to finance  
15 the backhaul fiber that would connect the electrical substations.  
16 This project intends to pass 200 or more businesses with a ten-  
17 percent take rate and 1,450 residences with a 35-percent take  
18 rate primarily in Central Appomattox County. An estimated 529  
19 businesses and residences are projected to subscribe, at a cost  
20 per connection to the Commission of just over \$1,850 per  
21 subscriber.

22 Future requests could include Tobacco Region  
23 counties, including Buckingham, Cumberland, Prince Edward, and  
24 parts of Campbell County, ultimately passing 9,200 Tobacco  
25 Region premises in the next five to six years.

1 DELEGATE BRYON: Now, somebody from Central  
2 Virginia Co-op please come up. Would you tell us who you are  
3 and if you have anything proprietary.

4 MR. WOOD: My name is Gary Wood. I'm President  
5 and CEO of Central Virginia Electric Cooperative. I don't intend  
6 to discuss anything proprietary today.

7 DELEGATE BYRON: I'm going to ask you a question  
8 before we get started that just came to mind, were you being  
9 conservative or why only a ten percent take rate?

10 MR. WOOD: On businesses, a number of those who  
11 have needs for internet already have solutions. So, we would be  
12 picking up people who would see this as a better solution, it's a  
13 conservative number. We think we'll do a little bit better, but we  
14 took conservative looks at all of our take rates, as well as our  
15 cost projections. This is a huge project for us and we want to  
16 make sure that we can hit the numbers.

17 DELEGATE BYRON: Are you concerned or are you  
18 competing with other technology folks?

19 MR. WOOD: These are areas, there may be a  
20 business, first of all, the business is here on our lines, are not  
21 businesses like strip malls in Richmond. Out in the rural areas,  
22 the businesses can be anything from a home business to a barn  
23 with some equipment in it to the internet service to some other  
24 small business like a welding shop that may need internet  
25 service.

1           There are certainly some people in these regions who  
2 have cell phone service, and may have a hotspot with the cell  
3 phone, that may be all they need. In that case, we'd be  
4 competing. There is not widespread broadband availability in  
5 this area.

6           MS. COLEMAN: I'm not familiar with your company,  
7 but I was interested in the network or communications.

8           MR. WOOD: We only have an internal network. We  
9 have not been in the communications business. We've tried for  
10 the last, since about 2000 to find solutions for broadband in our  
11 area. In 2004, we invited a company in from Alabama, who  
12 thought they could perfect broadband over powerlines, and that  
13 experiment went on for about four or five years and it never  
14 played out in the field like it did in the lab.

15           After that, we invited other providers to come into our  
16 system. We have offered free pole attachments without annual  
17 dues to somebody who had just billed to every member. We  
18 haven't found anybody who is willing to go into the area that we  
19 are in with the low density that we have and build out. This  
20 year, we decided we would do a study to see what it would cost  
21 to put fiber to all of the homes that are members are in, homes  
22 and businesses. We spent about six months looking at that. We  
23 did the study for three months, and then we expected it, it just  
24 was too expensive. And then they took another three months  
25 looking really hard at it to make sure we're comfortable with



1 those numbers and the take rates and the costs.

2 We would love to have a communications provider to  
3 come in and take this on. We look at this very differently, we're  
4 not for profit, we're an infrastructure provider in rural areas, and  
5 we're willing to take a long time for pay back. After two years of  
6 selling internet service and lease all the fiber from us, it'll be 11  
7 years to break even. It's going to cost us \$100 million to do the  
8 project. Very few companies are looking to get good returns, are  
9 willing to put out \$100 million. That's why no one is in a rural  
10 area. We believe we can do that.

11 Even with that, we're doing some things to lower the  
12 costs. We own the poles already and we can build in some  
13 spaces that allows us to go a little higher and closer to the  
14 powerlines and cut out some work, and we have some other  
15 things that'll help us with our costs. And with all of that  
16 together, it makes it very marginal, and that's why we decided to  
17 speak with the state and local government. If we can get about  
18 20 to 25 percent of those costs either in a system of capital costs  
19 for ongoing revenues for the first few years when the business is  
20 starting up, this will be a successful business easily.

21 We are starting the first year this year. We feel  
22 comfortable the first year will pay for itself and we're going to  
23 build entirely in lower cost areas. If we can pull everything  
24 together, we're willing to commit all five years at all 36,000  
25 members in the 14 counties, including five of the counties in the

1 Tobacco Commission area.

2 So, this is new for us. And it's new because we don't  
3 find anybody else that's willing to come do it. If they would, I  
4 would step back today. An internet provider the other day asked  
5 me why we would be in the internet business, if we build the  
6 fiber and started, why wouldn't we allow them to do it. And I  
7 suggested that they could, they just need to lease the fiber and  
8 wait ten years to make some money, and he decided he didn't  
9 want to do that. So, that's where we're at.

10 SENATOR RUFF: Madam Chairman, does the area  
11 that you're covering, does that go down towards the --

12 MR. WOOD: With this particular construction, we do  
13 serve that area with the electricity and ultimately we would plan  
14 to run fiber, we're planning to run it to all of our members, we  
15 treat them all the same. Ultimately, we'll be using this for our  
16 company site, also, and eventually you'll be able to read meters  
17 with optical fiber and such things as voltage meters and things  
18 that will help us operate our system better and it'll help us save a  
19 little bit on power costs and help us on reliability. We need to go  
20 to all of these points. Even if somebody is already there, we still  
21 need to go there for our purposes. In that case, they'll already  
22 have another provider and may not necessarily take our internet  
23 service.

24 When we looked earlier this year, out of our 36,000  
25 members, there were 900 who had fiber available to them when

1 we did the study.

2 SENATOR RUFF: Is there any additional costs for the  
3 individual homeowner?

4 MR. WOOD: There is a \$100 application fee that will  
5 be waived if they sign up while we're building it or in the area. If  
6 they wait until a year later when our guys are out there and then  
7 have to come back, it'll be \$100 application fee to get online, but  
8 we'll waive that when we're in the area under construction if they  
9 sign up.

10 MR. OWENS: Do you have a survey of your  
11 members?

12 MR. WOOD: We have not run a formal survey. We've  
13 had some informal surveys and members demanding this at our  
14 annual meeting and on our Facebook page and newsletters since  
15 2000. To be honest, the application timeframe for this didn't  
16 match with our project. Our project was approved by the Board  
17 on November 15<sup>th</sup>, which was the day that these were due. So,  
18 we were running kind of parallel, I wasn't sure I was going to  
19 have a project until our Board voted on it that day, so we hadn't  
20 done the survey.

21 I'm comfortable with our take rates for several  
22 reasons, and there's other areas around the country with similar  
23 demographics. We looked at doing a quick survey, and I had a  
24 company quote me \$25,000 to do 250 people and have it to you  
25 by today. So, you don't have a survey because we can't afford

1 to spend that type of money for 250 people. We are planning,  
2 actually we have a person, one of our summer interns, in for  
3 some work, and we're going to put her on the phone for the next  
4 few weeks to do our own survey. That's one of the things we're  
5 going to do to look at some numbers internally, but we're pretty  
6 comfortable with our projections.

7 MR. OWENS: This is not a question for you, it's for  
8 the Staff, in that application process, do they always break out  
9 between homeowners and businesses?

10 MR. PFOHL: Yes. That was part of the breakout that  
11 we wanted to see.

12 MR. OWENS: Is there a clear definition of business for  
13 maybe a guy who owns two cows?

14 MR. PFOHL: We went within an intuitive interpretation  
15 in terms of business. We didn't specify the type of business.

16 DELEGATE BYRON: I don't know about all farming  
17 equipment, but I would say that we discovered in our workforce  
18 training data, that so much of the equipment today, all  
19 equipment, electrical, all that is using some type of technology  
20 that multiple times require internet connection. It's something  
21 we need to consider to move forward, that we're not going to go  
22 backward, we're just going to keep moving forward with it. I  
23 don't know how much that will make a difference, but it may be a  
24 good point for the rural communities. But it showed the numbers  
25 off somewhat without that explanation.

1 MR. WOOD: For us, I separate them just by looking  
2 at their electric service, because there's business accounts and  
3 residential accounts. The business account, which is a  
4 nonresidential account, so it's a broad category.

5 DELEGATE BYRON: Delegate Marshall, you can keep  
6 asking questions, but when you're done, just say you're done.  
7 That may be good for everybody to keep going.

8 DELEGATE MARSHALL: So, two questions. You  
9 mentioned about the federal requirements linking that, can you  
10 talk to us a little bit about what that those requirements are?  
11 You've got to link your substations together, and can you talk  
12 about that? And on that map there, I don't know what the  
13 difference between the red, blue, and the greens.

14 MR. WOOD: Those are just three phases. We use  
15 that map because we're doing it very quickly. It talks about the  
16 three phases of power. That's the area where our lines actually  
17 run, that's physically the powerline map. The requirement for  
18 substation conductivity, and today there is not a requirement at  
19 the federal level for security, but those requirements are ramping  
20 up. We do not have any physical security at any of our  
21 substations. We would like to add video, as well as motion  
22 technology and several other things.

23 What we do have is a lot of other equipment that right  
24 now we connect back with radios. We have some landlines we  
25 lease from a couple of places. And it's not unusual on the worst

1 weather days for there to be falling weather and things that  
2 affect that radio system so that we would like to have more  
3 reliable communications and broader bandwidth. We also only  
4 communicate to the substations right now. We have a number of  
5 pieces of equipment down line that we could communicate with.  
6 We just don't have the ability to, reclosers, which are like circuit  
7 breakers. That after a person has repaired the line, right now  
8 they have to get in the truck and drive back and try to close that  
9 again. If there's another problem, they have to get back in the  
10 truck and drive the other way, there's a lot of time spent when  
11 we can operate the system remotely and check when the person  
12 is still at the location. We can only do that right now at the  
13 substation and then good weather at the substation. We have  
14 needs across the system to bring more communication and  
15 broader bandwidth communication back.

16 DELEGATE MARSHALL: My second question, did you  
17 consider wireless?

18 MR. WOOD: We have looked at wireless, and in our  
19 service territory, and we go along the Blue Ridge Mountains all  
20 the way down to Gum Spring, down here closer to Richmond.  
21 Wireless, well, we have wireless radio to the station. And we  
22 know the problems that it has. It's fairly reliable. And in our  
23 business, reliability is a big deal. For our stations, that's why we  
24 need fiber. We need that dependability and reliability. We  
25 believe in the long run our members will be more likely to have

1 reliable internet service. As the gentleman mentioned earlier,  
2 when you look at fiber versus wireless, and you can upgrade  
3 wireless continuously and it provides a certain level of service,  
4 and in some cases, that may be all members need. We believe  
5 in fiber throughout the area. It gives us the best solution long  
6 term for our needs.

7 DELEGATE MARSHALL: When you're connecting to  
8 the home and the home is 200 feet off the highway versus a  
9 half-mile off the highway, there's got to be a charge to go further  
10 off the highway?

11 MR. WOOD: That's not the way we do our electric  
12 system.

13 DELEGATE MARSHALL: So, if it's two miles off the  
14 highway.

15 MR. WOOD: If there's a meter there today and we  
16 need to get to that meter to read it, we will run fiber there. And  
17 if you don't want internet service today, we may not run it, and  
18 we're not necessarily going to go to every home and attach, but  
19 every home that wants internet service, we will run to it.

20 Now, in the future after we've got this first build out, if  
21 there are lengthy lines, that's something we'll have to take up  
22 and look at.

23 DELEGATE MARSHALL: Eventually, you want to be  
24 able to read that meter by the fiber. If this project was not on  
25 the table, would you all still look at doing that in passing that,

1 because that's got to be a savings, it's got to be a long-term  
2 savings, it's got to be a savings to you.

3 MR. WOOD: Today we can read meters remotely by  
4 using broadband over the powerline, it's a very slow speed  
5 communication, and it's interrupted when the electric circuit is  
6 interrupted. When the power is out at the house, you can't see  
7 the meter and can't interrogate it, to get the information from it.  
8 If you have a fiber connected, that bypasses the electric line and  
9 allows you to talk to it and it tells you when the power is there or  
10 not.

11 The second thing is we communicate one way more or  
12 less with the meters. We would like to eventually be able to  
13 integrate some of the internet and smart good options at home  
14 whether that's a thermostat that you can use to set back on a  
15 cold morning and save a little money for everyone, or for a  
16 number of different smart devices that go on, we can't do that  
17 with the present system. That's why we will eventually need  
18 higher speed communication with the meters. Would we do this  
19 today without the need for internet, we would probably not run  
20 to every home today because the cost is higher than the  
21 benefits, we would run just to our substations. But we know  
22 there's a need for internet and we see that if members, if we can  
23 meet that need with the fiber, it will pay for getting that system  
24 deployed a lot quicker for us. We will see some other benefits,  
25 and that's the reason we're trying to keep the costs down and



1 wait a little longer.

2 DELEGATE BYRON: Any other questions? Thank you.  
3 Tim, if you would do the co-ops.

4 SENATOR RUFF: Since Prince George has experience  
5 here, our next speaker is Mike Malandro.

6 MR. MALANDRO: Good morning, Mike Malandro, CEO,  
7 Prince George Electric Cooperative.

8 DELEGATE BYRON: This is Number 3379.

9 MR. PFOHL: This is Sussex County, Project Sussex  
10 County High Speed Broadband Initiative, request for a million  
11 and a quarter. The co-applicant on this project is Prince George  
12 Electric Co-op and PGEC Enterprises, LLC, which is a recently  
13 created company that was created by the Electric Co-op to  
14 initiate broadband service in neighboring Prince George County in  
15 2016.

16 The Sussex Project is expected to pass more than  
17 2,300 residences, with an anticipated take rate of 40 percent,  
18 resulting in 922 residences taking 30 megabits upload and  
19 download service at a monthly cost of \$82.

20 The project involves 50 miles of backbone and 75  
21 miles of last mile fiber, stretching across Sussex from the U.S.  
22 460 corridor at Waverly to the I-95 corridor at Stony Creek. I  
23 think Sarah can pull up a map while I'm talking here.

24 Based on the applicant's projections, the cost to the  
25 Commission's per subscriber served is \$1,355 for engineering

1 and construction. Commission funds would be used for \$662,000  
2 of backbone and distribution fiber construction, \$248,000 of fiber  
3 to the home, and the entire cost \$340,000 of customer premise  
4 equipment and installation.

5           Sussex County and PGEC Enterprises each propose to  
6 provide \$250,000 in matching funds for engineering and  
7 construction, while PGEC will provide \$750,000 for the costs of  
8 backbone fiber that will serve as backhaul for the last mile, while  
9 also providing smart-grid monitoring and security for its electrical  
10 substations.

11           SENATOR RUFF: You heard the previous presentation,  
12 and there's some difference, they are talking about 100  
13 download speed, you're talking about 30, are you all using the  
14 same technology?

15           MR. MALANDRO: Yes, sir, we are. We chose the 30  
16 initially as we started out with the project, and that's to keep the  
17 finances rolling along, because while 100 sounds great, most  
18 people are not going to use 100. We've proven that and we see  
19 the statistics. Will they use 100 in the near future, absolutely.  
20 And will we be able to provide 100 in the future, absolutely.

21           It's a pricing point we put in. We've got to go out and  
22 buy the data and get the data brought into the area that we  
23 serve. The fiber optic at the end of the day, the only thing you  
24 have to do once the infrastructure is built is turn a knob. Some  
25 of the other technologies, you've actually got to put in more

1 infrastructure. That's the beauty of fiber optic. It's kind of like  
2 the electric lines, once they're in place, you've just got to buy  
3 more power, and we can get that from another generator.

4 SENATOR RUFF: They are talking about \$50 a month.  
5 You're talking about \$82.

6 MR. MALANDRO: Correct. Our \$82 a month, that  
7 includes the modem, everything you need. We don't anticipate  
8 that price going up in the future. As a matter of fact, we  
9 anticipate it going down. The prices are a little higher and that's  
10 to generate cash flow for the company in order to continue to  
11 deploy out into the underserved or nonserved areas, so it's  
12 creating a margin there that can be put back into the business.  
13 Very similar, if not exactly like the electric cooperative business  
14 model. So, while you didn't hear that this was PGEC Enterprises,  
15 PGEC Enterprises is actually a cooperative from a financial  
16 standpoint. Everybody will be a member, and any excess or  
17 earnings that the company has will go back to them in a capital  
18 credit refund at some time into the future.

19 We're not really concerned of the price, as a matter of  
20 fact, the \$82, we're getting almost a seven percent take rate,  
21 and the people that are not taking it aren't taking it because of  
22 cost, there's other reasons why they're not taking it. We don't  
23 see price as being an issue, and that puts us in a position to  
24 continue to grow on this business moving forward.

25 Now, when we're completely built out and we're in a

1 more of an operation and maintenance mode, at that point in  
2 time we'll either, A, lower the price, or inflation will outpace, or  
3 we'll opt for more data. So, say a gigabyte for \$82. That's an  
4 initial starting price that we needed to get when we factored into  
5 the number for the market that we're serving currently.

6 DELEGATE MARSHALL: One question that pops up  
7 and maybe we should have looked at this is that your take rate is  
8 a lot higher than what we've heard before. In your data for your  
9 service area, do you all look at household income? To see what  
10 that is? If somebody is making 50,000 bucks, it's a whole lot, I  
11 would assume, would have a higher take rate than a \$25,000  
12 household?

13 MR. MALANDRO: I wouldn't agree with that. I can  
14 tell you we ran a pilot project which was along West Quaker Road  
15 in Prince George County. I would not say that would be a rich  
16 area, that was a good model of our system in general, and that's  
17 why we chose it. It connected two substations, which our  
18 ultimate goal was to, and then we came up with the idea of, well,  
19 maybe we could do this fiber to the home business like other  
20 places in the country.

21 We gave it a shot and we didn't think that there was  
22 going to be a money issue. Now, obviously, if you have a  
23 \$25,000 household income, A, it won't be a lot, but from my  
24 experience, I think internet is kind of a luxury item right now,  
25 and when it comes to stuff like that, even though it's a necessity,

1 it's still looked upon that way, and people will spend the money  
2 to get it.

3 DELEGATE MARSHALL: Did you all look at wireless?

4 MR. MALANDRO: I have looked at wireless, and we  
5 looked at using ourselves. We looking at possibly partnering with  
6 a wireless company. And after our homework and between the  
7 engineers, and I'm an engineer by background, we decided that  
8 was not going to be the technology that we wanted to move  
9 forward with, and we've been in business 80 years and we'll be in  
10 business 100 years from now and we feel like that is a stopgap  
11 measure. In five years, that technology is not going to be any  
12 good with the amount of data you move around and that's going  
13 to need to be upgraded and you're going to continue to spend  
14 more money to move the wireless along. I kind of compare it to  
15 the CFL bulbs, to the electric business. Nobody buys CFL bulbs  
16 anymore, we buy LED bulbs, because when we were just trying  
17 to get to the LED bulb, but we had to get in there and use the  
18 CFL a little bit.

19 We've been able to drive the price, the cost down on  
20 the installation tremendously. So, the industry at \$20,000 to  
21 \$60,000 a mile to build the backbone, we've got a proprietary  
22 installation amount. We've got it down to about \$12,000, and  
23 that brings the costs down significantly. And I think we're only  
24 able to do this because we went in with no preconceived notions  
25 and we started building this, we started building it from our

1 perspective, which is building the infrastructure, that's what we  
2 do with electricity, and we figured out a way to get this done a  
3 lot faster.

4 MR. OWENS: Does your company do a survey?

5 MR. MALANDRO: No, we took a different approach on  
6 that in that we started the pilot project along this one area  
7 between two substations, and that was involving 75 potential  
8 customers. It was good representation of the density of our rural  
9 service territory. So, out of the seven or eight miles, we had 75  
10 homes attached, which was about nine or ten homes per mile,  
11 which is a good representation. And like I said, we had 50 that  
12 took it.

13 MR. OWENS: You didn't do a survey?

14 MR. MALANDRO: No, we didn't do a survey. We  
15 wanted to see how this project would work on the ground. We  
16 wanted to see it up in person before we ever committed any  
17 money. I knew my board would never commit the money. I  
18 didn't feel comfortable taking the risk until actually went out and  
19 did it. We got that seven percent take rate and now we're over  
20 in phase two or phase one of the project. And out of the 350  
21 homes we marketed that were eligible in this area, we got 170  
22 applications and we're putting them on today as we speak. And  
23 we can get 20 a week right now.

24 We didn't feel like we needed to do a survey. We  
25 already know our area and our customers pretty well. We're able

1 to do this on another utility, Dominion's territory, because we can  
2 do pole attachments and get right over and go right across the  
3 street and start serving their customers, too. So, it's not just for  
4 the Electric Cooperative customers, it's for anybody in our area.  
5 It's going to accelerate our business model that we already  
6 developed. And I think it's going to keep moving along.

7 The grant funds, if we're able to secure them,  
8 especially in Sussex County, that's going to accelerate the  
9 expansion of this fiber network and just think of it's like a spider  
10 web, it's just going to keep growing and growing and growing,  
11 and you guys will be like an injection. And this could put us into  
12 a position where we could have thousands of customers in the  
13 next six or seven years.

14 MR. OWENS: It's my understanding that a co-op puts  
15 their profits back into the company.

16 MR. MALANDRO: Yes, that's the business model.  
17 Monies made from the customer is put back into the business  
18 and then those retained earnings we call dividend or payout at  
19 some later date and probably about 20 years later, and then give  
20 it back to the customer at that point in time. So, we're  
21 essentially using the customer's cash, and then we borrow  
22 money to keep growing the business.

23 MS. COLEMAN: I see there's a \$75 application fee.  
24 Would you give any consideration to waiving that?

25 MR. MALANDRO: Not at the moment. And we, the

1 reason why we have that kind of built into the pricing model and  
2 to cover some of the upfront costs. There hasn't been any  
3 pushback on that. As a matter of fact, people are sending checks  
4 in and we're having to return them because they're not in part of  
5 the pilot project. Right now, I've got a new animal, which is I'm  
6 getting a lot of blowback from people of why aren't you here yet  
7 and so cost is not an issue, I can assure you. We could probably  
8 charge \$100 and that wouldn't be a problem. This puts us in a  
9 comfortable position where we know we can have a successful  
10 business model. And to put it in perspective for you, we are cash  
11 flow positive right now and we probably will not turn a profit for  
12 this year and that's just because it's a one-time startup  
13 expenses. But when you back those out, we turn a profit for  
14 2017 on 50 customers.

15 So, it's a self-sustaining business model that the grant  
16 funds will only help perpetuate moving forward and we want to  
17 continue to put the broadband into the rural areas. I believe in  
18 ten years that we will have achieved something of great  
19 magnitude, and we're not doing this for the profit, we're doing all  
20 this for the community. We didn't take this on for any sort of  
21 business reasons. We just need to make sure that it makes  
22 business sense.

23 DELEGATE BYRON: Thank you very much.

24 MR. PFOHL: The third Electric Cooperative request is  
25 from Mecklenburg County for the EMPower Project. It's a request



1 for \$2.6 million. The co-applicant on this project is a nonprofit  
2 Mecklenburg Electric Cooperative, which like the other two  
3 electric co-ops, is proposing to connect electrical substations for  
4 backbone and backhaul purposes.

5 Collectively, the EMPower Project will pass within  
6 1,000 feet of 2,900 homes and businesses, with a total of 135  
7 miles of fiber backbone stretching from Gretna to outside of  
8 Emporia, crossing six Tobacco Region counties. Commission  
9 funds are requested to deploy 172 miles of last mile fiber to  
10 those premises for equipment, materials, labor, as well as  
11 customer premise equipment and installation.

12 MEC estimates a 45-percent take rate for nearly 4,600  
13 residential customers pass, resulting in just under 1,200  
14 residential subscribers. It also estimates a 39-percent take rate  
15 for the 325 businesses passed, resulting in 128 business  
16 subscribers. So, altogether, 1,300-plus subscribers are expected  
17 to take service of at least 25 over three megabits per second.  
18 Based on those projections, the cost to the Commission on a per  
19 subscriber basis is just over \$2,000.

20 MEC, while not yet a provider of broadband, attached  
21 a business plan that indicated proposed monthly service costs  
22 starting at \$56 to \$66 for residential subscribers and \$75 for  
23 small businesses. The business plan also cites an array of  
24 additional services MEC could offer, including voice over internet  
25 phone, television, and so forth.

1                   MR. LIPSCOMB: I'm David Lipscomb, Vice President  
2 of Member and Energy Services with Mecklenburg Electrical  
3 Cooperative.

4                   SENATOR RUFF: Dave, you have 25 down and three  
5 up. Central has 100/100. Prince George is 30/30. Why the  
6 difference?

7                   MR. LIPSCOMB: Our base entry level package,  
8 Senator, would be 50 up and 50 down, so that would be the base  
9 package, and that is submitted in our application. We do meet  
10 the minimum FCC requirement, which is 25 up and three down.  
11 Fifty up, fifty down would be the entry level package.

12                  SENATOR RUFF: When Tim described this, he says 56  
13 to 66. Can you clarify that a little bit?

14                  MR. LIPSCOMB: Let me inquire one of our assistant  
15 manager experts is here with us on that. This is Dwayne Long,  
16 he is our Vice President of IT.

17                  The only other thing I'd like to mention is that Dwayne  
18 actually comes from a cooperative in north Georgia and he joined  
19 the cooperative a little over six months ago, and he had the  
20 experience in that cooperative of serving 7,000 fiber broadband  
21 members at that cooperative. I believe that range was a set  
22 package starting at 50/50, the next one up being 100/100. And  
23 then we have the possibility of going even higher than that.  
24 That's numbers that we got from our feasibility company. We  
25 used a nationwide company to actually do a feasibility and give

1 us some estimates as to what we should charge.

2 DELEGATE MARSHALL: Mr. Long, can you briefly  
3 explain to us, and it was said you were an IT that helped put in  
4 at a last mile. Could you walk us through the timeframe?

5 MR. LONG: Absolutely. I came from Blue Ridge  
6 Mountain U.C., North Georgia, it's in, headquartered in Young  
7 Harris, Georgia, served five rural counties, three in North Georgia  
8 and two in North Carolina. When I left, we had over 7,000 fiber  
9 to the home customers. We have been through the dial-up and  
10 the wireless and then realized that fiber was the answer. So, you  
11 can see the natural progression. We built fiber to our  
12 substations, which was the same thing that we proposed here  
13 and started expanding off of those.

14 DELEGATE MARSHALL: What is the timeframe?

15 MR. LONG: About two-thirds of our members at that  
16 point when I left, great, great example.

17 DELEGATE MARSHALL: Again, what is the timeframe?

18 MR. LONG: We started in 2005 or 2006 and then just  
19 heard that last year we had paid back all of our initial loans from  
20 that initial rollout, will mention that we did have some substantial  
21 help with grant funds through the stimulus funds back in 2009.  
22 And that was a huge shot in the arm.

23 DELEGATE MARSHALL: All right, so if you can, just  
24 briefly talk to us about the funding. You went out to the market  
25 and borrowed money. What percent was borrowed money

1 versus stimulus funds and where else did the money come from?

2 MR. LONG: Up to 2009, we were basically funding it  
3 through the cooperatives, borrowing money. In 2009, between  
4 us and Habersham MC, we got a \$26 million grant from the VTOP  
5 funds. Most of that money was spent to get to Atlanta to get the  
6 cheap data. Basically, we formed a third entity called NGN,  
7 North Georgia Network, that basically built that redundant route  
8 to get to that data. And very similar to what MBC does for our  
9 area, they fill in the gaps, as you can see the blue lines on the  
10 maps, or MBC's lines, and the different colors are our different  
11 phases that we plan to build to our substations and then serve  
12 off of those main lines.

13 Once we got those funds and built to the cheap data,  
14 we were able to lower our price. If you look at the Blue Ridge  
15 Mountain EMC website today, they have a low end 30/30  
16 package that's below \$40, it's basically around \$39.

17 DELEGATE MARSHALL: One further question, what  
18 percentage was borrowed?

19 MR. LONG: Off the top of my head, I know we were  
20 over \$15 million in debt at one point.

21 MR. LIPSCOMB: One of the things that Dwayne and I  
22 talked about in the past, the VTOP grants that they were able to  
23 acquire were shared between Habersham and Blue Ridge  
24 Mountains, and I believe that was \$26 million, so you can see it  
25 was a big shot in the arm.

1                   One of the things that Dwayne referred to and MGM is  
2 like Mid-Atlantic Broadband. And one of the things that the  
3 EMPower Project does, it leverages every dime out of it, Mid-  
4 Atlantic Broadband system, that you guys have previously voted  
5 for and supported. We have a mutually beneficial agreement of  
6 fiber sharing agreement with MBC, so that we'll build 135 miles  
7 of new fiber, but we'll also utilize part of MBC's existing systems,  
8 just compounding the effort to use existing infrastructure.

9                   DELEGATE BYRON: Are you going to be able to use  
10 any of the, I guess MBC is going to connect to the Trans-Oceanic  
11 Fiber that's going to become available in the future? Are you  
12 going to be able to tap into that?

13                  MR. LIPSCOMB: That's not something at this point  
14 that we've talked to Tad and the folks at MBC about, but if there  
15 would be a need, I'm sure we'd be able to utilize that or work  
16 that out with Tad and his group. And I think you see a thumbs  
17 up from Tad in the back.

18                  MR. OWENS: How many counties do you serve?

19                  MR. LIPSCOMB: Mecklenburg Cooperative serves nine  
20 counties in Southside Virginia, eight of those counties are in the  
21 Tobacco Commission Region. Serves six counties, so we are  
22 truly a regional project in nature.

23                  MR. OWENS: Did I hear you say that the FCC requires  
24 25/3 to be known as broadband?

25                  MR. LIPSCOMB: In 2015, the FCC changed its

1 broadband definition to 25 up and three, 23, 23 down and 3 up,  
2 yes, 25, 3 is the number, so that is a change. Easily, you can  
3 see that we meet that requirement.

4 DELEGATE BYRON: That's not their definition for  
5 unserved, is it?

6 MR. LIPSCOMB: Yes, ma'am.

7 MR. OWENS: If we do this grant, what kind of  
8 timeframe are you talking about for implementation?

9 MR. LIPSCOMB: With this one, we'll easily meet the  
10 requirement of the three-year timeframe, we'll easily meet that  
11 for the pilot, and we'll continue to serve the members as we go  
12 forward, but easily not, not a problem to do that, and we'll be  
13 aggressive about doing it. Because as some of our cooperative  
14 sisters have described to you, we'll utilize those facilities for our  
15 needs.

16 One of the things that's different about a cooperative  
17 is we are our own buyer membership. And one of the things that  
18 really does make it different for us, can you imagine the  
19 cooperative having a fiber running in front of one of our owner's  
20 homes and then we have to go tell them, well, we can either  
21 share that fiber with you or we can say no, we can't tell our  
22 owners no. That's why we'll push forward to get this done in a  
23 timely manner and to meet their needs and their requests.

24 SENATOR RUFF: With nine counties, how long is that  
25 going to take in your best scenario to offer it to everybody?

1 MR. LIPSCOMB: To every homeowner there. Our  
2 goal, Frank, would be in that five-to-six-year timeframe. Now,  
3 that would be without any financial assistance. But with some  
4 financial assistance from you guys and some of our other friends  
5 in the federal area, we can make this thing sing.

6 UNIDENTIFIED: You should sell cars.

7 MR. LIPSCOMB: I have never sold a car, I've never  
8 really sold anything, so what you see is what you get.

9 SENATOR RUFF: In the next couple of weeks, can you  
10 learn how to sell cars?

11 MR. LIPSCOMB: I sure hope I don't have to, Frank.

12 DELEGATE BYRON: Any other questions. All right,  
13 thank you.

14 MR. LIPSCOMB: Thank you.

15 MR. PFOHL: We'll have to go back in the batting  
16 order, our next request is the Bedford County Comcast Proposal.  
17 I don't know if you want to delve into that now or jump over it.  
18 Those are all the three electric co-ops. Do you want to jump  
19 over Comcast and go to The Wired Road? What's your  
20 preference?

21 DELEGATE BYRON: No, we're going to do Bedford.

22 MR. PFOHL: Okay. The second Bedford County  
23 request is Comcast Broadband Project in Southern Bedford  
24 County, and it's a \$4 million request.

25 Obviously, Comcast is the co-applicant on this

1 proposal to upgrade and expand and extend the network and  
2 provide access to the Bedford County residents. The project will  
3 traverse southern Bedford County from the county's western  
4 border with Roanoke County to the eastern end at Smith  
5 Mountain Lake. The project area was selected as a result of  
6 discussions between the county and Comcast since there was a  
7 significant need for broadband in that area as evidenced by the  
8 survey conducted by the county and businesses in the area.

9 The opportunity to obtain funding from the  
10 Commission, the county and Comcast are ready to partner and  
11 submit an application for funding for a hybrid fiber coaxial  
12 network that will deliver speeds up to a gigabit per second to  
13 residential customers. This is an area that would offer all  
14 customers seven residential and nine business broadband options  
15 that exceed the minimum speed requirements set in the program  
16 guidelines.

17 The co-applicant, Comcast, is requesting that all,  
18 shouldn't say all, but most major aspects of the scope and  
19 budget for the project including subscriber outcomes be kept  
20 confidential. The Committee may wish to go into executive  
21 session to receive first legal advice from our counsel on this  
22 request and then, secondly, to discuss specifics of this proposal.

23 DELEGATE BYRON: Mr. Owens.

24 MR. OWENS: Madam Chair, I move we go into a  
25 closed session in accordance with the Freedom of Information



1 Act, Section 2.2-2711A5 of the Code of Virginia. And this is for  
2 exclusion purposes, subdivision of 23 of 5, 2.2 concerning  
3 information contained in the grant applicant, an application by  
4 Comcast.

5 DELEGATE BYRON: Is there a second?

6 MS. COLEMAN: Second.

7

8 NOTE: A closed session is held, whereupon at the  
9 conclusion of the closed session, the Committee meeting  
10 resumes in open session.

11

12 MR. OWENS: Madam Chair, I move that we vote on  
13 the record that the Committee hereby certifies that to the best of  
14 each member's knowledge, the only public business matters  
15 lawfully exempt from open meeting requirements under this  
16 chapter and only such public business matters as were identified  
17 in the motion by which the closed meeting was convened, were  
18 heard, discussed, or considered by the Committee in that  
19 meeting.

20 DELEGATE BYRON: Evan, call the roll.

21 MR. FEINMAN: Madam Chairman, Delegate Bryon.

22 DELEGATE BYRON: Yes.

23 MR. FEINMAN: Senator Carrico is not here.

24 Ms. Coleman.

25 MS. COLEMAN: Yes.

1 MR. FEINMAN: Ms. Carter.

2 MS. CARTER: Yes.

3 MR. FEINMAN: Delegate Marshall.

4 DELEGATE MARSHALL: Yes.

5 MR. FEINMAN: Mr. Owens.

6 MR. OWENS: Yes.

7 MR. FEINMAN: The motion is carried.

8 DELEGATE BYRON: All right. I apologize to everyone.

9 At this time, we're going to take a five-minute break and then  
10 we'll continue.

11

12 NOTE: A break is had, whereupon the meeting  
13 continues, viz:

14

15 DELEGATE BYRON: All right, we're back in session.

16 We're back on track here with Bedford County and the 3392  
17 request dealing with the Comcast Project in Southern Bedford  
18 County.

19 MR. DAUGHERTY: My name is Nathan Daugherty.  
20 I'm the Government Affairs Officer for Comcast. My service area,  
21 so to speak, is Southern Virginia Southside. And I've been  
22 working with Bedford County on this application. For us, it's  
23 been a really exciting opportunity. I know that there have been  
24 some questions concerning speeds, and I'd be happy to go into  
25 some of our products to talk about what we can offer if the

1 Committee would like to hear that.

2 DELEGATE BYRON: Yes, go ahead.

3 MR. DAUGHERTY: So, this is a project that would  
4 encompass almost 1,600, is for us is a pretty exciting opportunity  
5 because we're able through an upgrade of over 200 miles of  
6 infrastructure and a new build of almost 80 miles of  
7 infrastructure and provide very fast broadband speeds or offer  
8 very fast broadband speeds to this portion of Bedford County.  
9 Our services that we offer in terms of broadband are really  
10 varied, and we have six different tiers of service that are above  
11 the minimum range for residential homes, going all the way up to  
12 our one gig service, which is 1,000 megabytes, approximately  
13 1,000 megabytes down and 35 megs up, those are speeds that  
14 we're able to deliver for our hybrid fiber coaxial model. It's been  
15 pretty technologically interesting for us as a company because  
16 over our existing network, we have been in the past year able to  
17 really ramp up our speeds, I think about 400 per cent, as a  
18 matter of fact. And so our full suite of services on that internet  
19 side will be available for residents.

20 What I think is pretty neat about our product is that  
21 not only do we have the fast speeds, but we have a whole set of  
22 accompanying tools or products that go along with that  
23 broadband speed. So, for example, we have some pretty smart  
24 apps that allow folks to monitor their data usage on their Wi-Fi  
25 router and to manage the devices individually on that router, to

1 print something off, print some on, see when their son or  
2 daughter is on the internet at 2:00 o'clock in the morning, for  
3 example, and then just nip that in the bud if they like.

4 All of our internet customers also have access to  
5 Comcast Wi-Fi hot spot network, which is a nationwide network  
6 of I believe 18 million hot spots at this point where they can go  
7 to Philadelphia, they can look at another cool app that we have  
8 that shows where all of the hot spots are and to get online in  
9 Philadelphia. Someone who is visiting Bedford County from  
10 outside of the area of this Comcast customer, once the system  
11 was built up to support it, would be able to get online there, as  
12 well, using these Wi-Fi hot spots, and it's an additional layer of  
13 service that we offer through the broadband products.

14 Our broadband network, or excuse me, our HFC  
15 network is also able to provide small and medium business  
16 products so that if you are at the corner store by, on Diamond  
17 Hill Road, you can set up and have a dedicated Wi-Fi network for  
18 your customers, so that you can work on your own, and never  
19 the twain shall meet.

20 We also have, as far as pricing goes, I said we have  
21 the six separate tiers. Those are the regular residential tiers.  
22 We have also have a pretty neat broadband access program,  
23 called Internet Essentials. This is a program designed for two  
24 qualifying populations. One is anyone who receives -- benefits,  
25 and the second is the parent of any child eligible for the National

1 Free or Reduced Price School Lunch Program. If you qualify,  
2 we'll provide a 15-megabyte down internet product and free Wi-  
3 Fi router rental, free installation, with no credit check, no  
4 contract, no roll-off for \$9.95 a month.

5 DELEGATE MARSHALL: Is that system-wide?

6 MR. DAUGHERTY: That's across the country, it's a  
7 nationwide program we've had since 2011. We have connected  
8 over a million households since that time and we've been making  
9 continual upgrades since we started. We've done four speed  
10 upgrades in six years with that program. We, this summer,  
11 increased the speeds, as I said, 15 megabytes down, we also  
12 started offering access to anyone in that program with our Wi-Fi  
13 hotspot networks. If any enterprising student wants to do their  
14 homework at the bus stop and there's a Wi-Fi network there,  
15 they can do that.

16 MR. OWENS: Do you advertise that across the board  
17 nationally, regionally?

18 MR. DAUGHERTY: We have a website, Internet  
19 Essentials.com, and we also work with school systems trying to  
20 get the word out. One of the cool things about the website, we  
21 have a bunch of different materials that we produce that a  
22 community partner can access and have sent to them for free.  
23 So, if a guidance counselor wanted to pass out brochures to  
24 folks, they could do that.

25 MR. OWENS: You've been working with all the school

1 systems?

2 MR. DAUGHERTY: I've been talking to as many as I  
3 can, yes, sir. In Bedford County, I've had a conversation with  
4 the school system about Internet Essentials. We did a check of  
5 the school districts that could be impacted by this project, and  
6 we saw that it would traverse approximately, I think six different  
7 areas of the school system areas, the school systems, 3,000 of  
8 those are students in that area, and 1,400 of those students are  
9 potentially eligible for the Free Reduced Priced School Lunch  
10 Program, and so then of those students within our area would be  
11 eligible for Internet Essentials.

12 MR. OWENS: What kind of participation do you have?

13 MR. DAUGHERTY: Well, in this area, it's zero, since  
14 we're not there.

15 MR. OWENS: I'm talking about across the board for  
16 the whole company?

17 MR. DAUGHERTY: If, well, I don't have a specific  
18 number for the whole company, it varies. I will say that it's  
19 something that our Government Affairs team has been very  
20 invested in over the years, and as a matter of fact, last evening,  
21 I attended an event, in which I was talking about Internet  
22 Essentials.

23 UNIDENTIFIED: We have approximately a million  
24 households, I believe, across the country that are now in the  
25 program, and in Virginia here, I think it's around 7,000

1 households, and it may be more than that at this point. We do  
2 very much advertise that we have the materials in 30 different  
3 languages, we talk to all the school districts. And to be honest  
4 with you, it's been challenging because some of the school  
5 districts see that as a solicitation, and they're a little bit nervous  
6 sometimes about for-profit entities coming in and distributing  
7 materials to their students. So, we have some school districts  
8 that work with us really well, and some that are a little bit  
9 nervous about getting involved. So, then we participate through  
10 boys' and girls' clubs and other avenues, as well.

11 DELEGATE MARSHALL: Do you have anything broken  
12 down by localities?

13 UNIDENTIFIED: Internet Essentials. We can probably  
14 get that information for you to take a look at it.

15 MS. COLEMAN: What about the rural areas?

16 UNIDENTIFIED: Yes, as far as what we're proposing  
17 to build in Bedford. This network that we're proposing to build in  
18 Bedford would be the same network we have in Richmond. So,  
19 you would have the capabilities as anybody in a rural area, I  
20 mean in an urban area. So, you would have access to the  
21 complete suite of products, that would include our home security  
22 products where we can install cameras that you can monitor  
23 remotely from your cell phone and you'd have our fastest  
24 broadband speeds that we offer. You would have our telephone  
25 service.

1 MS. COLEMAN: Excuse me, my question is specific to  
2 underserved or unserved rural areas? Comcast doing that, as  
3 well?

4 UNIDENTIFIED: Absolutely. We're one of the largest  
5 rural providers in Virginia.

6 MS. COLEMAN: And nationwide?

7 UNIDENTIFIED: We're the largest cable operator. We  
8 have 23 million customers.

9 MS. COLEMAN: But what about the monetary issues  
10 in rural areas?

11 UNIDENTIFIED: It depends on the economics, and it's  
12 a case-by-case basis. For this particular instance, it makes it  
13 very difficult. So, that's why we're here today.

14 DELEGATE BYRON: The other thing that I want to put  
15 out for Bedford County, because this is a big portion of my  
16 district, is the lake area as a tourist area, and that may very well  
17 be in some of the other areas we've discussed today, but we  
18 have a lot of transient folks that come in and come and visit the  
19 area, I said lakes, especially in the summertime, and this also  
20 affords an opportunity for them to have more services at their  
21 places that they're coming to visit, which is very critical when  
22 you're trying to attract people to the area. So, that's another  
23 positive thing on all of these projects.

24 UNIDENTIFIED: Yes, all of those folks usually bring  
25 an iPad or an iPhone with them and they would have access to



1 Wi-Fi services at speeds where they could stream videos,  
2 movies, whatever they choose.

3 DELEGATE BYRON: Any other questions from the  
4 Committee members?

5 All right, thank you.

6 MR. PFOHL: The next project up is the Citizens  
7 Telephone Cooperative, Copper Hill Project request for \$467,000  
8 and change. The Floyd-based Citizens Telephone is a non-profit  
9 telephone cooperative, that serves as the lead applicant on this  
10 project to expand its gigabyte fiber to the home service nearly 20  
11 miles to a project area in northern Floyd County.

12 Citizens has received three previous Commission  
13 grants totaling just under \$6 million since 2005 to expand  
14 broadband service in its multi-county service area. Monthly  
15 service starts at \$60 for 100 megabits upload and 50 megabits  
16 download, while one gigabit service begins at \$80 a month, with  
17 higher tiered monthly pricing for large data users.

18 The Copper Hill Project would pass 390-plus homes at  
19 an expected take rate of 40 percent resulting in an estimated  
20 157 subscribers at a cost to the Commission per subscriber of  
21 just under \$3,000. This project would also extend fiber at a cost  
22 of approximately \$42,000 to a wholesale nursery operation that  
23 employs over 100 workers during peak growing and harvesting  
24 seasons. Citizens proposes to equally cost-share all engineering  
25 and construction expenses with the Commission, thereby

1 assuring the matching fund requirement would be met.

2 MR. REECE: Good afternoon. Dennis Reece, I'm the  
3 Chief Operating Officer for the Cooperative. I do have some  
4 proprietary information, as well.

5 MR. FEINMAN: Can you describe the nature of the  
6 proprietary information?

7 MR. REECE: Primarily the deployment type and the  
8 pricing and structuring plans.

9 MR. FEINMAN: The threshold question would be does  
10 the Commission have any questions about that? If we don't,  
11 then we don't need to go to executive session.

12 MR. PIPER: I think when we were talking earlier that  
13 the idea would be if to ask the question and see where it stands  
14 proprietary, then we could hold off on that, then go into closed  
15 session, I think that that would probably be a good way to handle  
16 it.

17 DELEGATE BYRON: Does that work for you?

18 MS. MYERS: All right.

19 DELEGATE BYRON: Based on our attorney's advice, if  
20 someone asks you a question that's proprietary, please let us  
21 know that. Do you want to tell us anything that isn't  
22 proprietary?

23 MR. REECE: All right. This project is primarily in the  
24 northern tip of Floyd County, we serve the rest of the county  
25 except for this very tip of Floyd County. This is traditionally a

1 Verizon footprint, and Verizon has deployed some DSLs right  
2 along 221, -- has done similar, and there at the county line,  
3 they actually serve Roanoke County, and that's where we meet  
4 them there. From our survey in and from the customer requests  
5 we get there, we know that this area is primarily unserved and  
6 part of it's underserved. So, we did do a door-to-door survey for  
7 three days and went to 188 homes and had a 27-percent  
8 response rate and 25 percent said they would take service if it  
9 was available, and 46 percent said they had service, but it was  
10 unreliable, but they would love to have other options. Most of  
11 them were using Wi-Fi hotspots at home or even satellite service  
12 today. A few had DSL, but primarily this area is lacking service.

13 MS. CARTER: I am little bit familiar with the Copper  
14 Hill area in Floyd County. Is that an area that seems to be  
15 growing in Floyd County?

16 MR. REECE: If you look at the map, the very tip up  
17 there, and that's Roanoke County, the county line up there, and  
18 the other border going down is actually Franklin County, so it is  
19 the very tip of the county there.

20 MS. CARTER: Another question, do they have some  
21 type of, I may be thinking of another county, up in Copper Hill,  
22 some kind of an academy or school?

23 MR. REECE: They do, it's Apple Ridge Farm, and they  
24 actually wrote a support letter for this. They have a, they run  
25 summer camps for STEM programs for students, for elementary

1 students primarily. And we looked at that multiple times, I know  
2 they've been trying to get service there for years. And it's been  
3 a high cost to get there. And we would be passing right by them  
4 with this project. Other than that, about the only business there  
5 is a day care center. This is 99.9 percent residential.

6 DELEGATE MARSHALL: Can you explain a little bit  
7 more about the school, which population, age, and so forth. I  
8 have attached a letter to the application. They have served, I  
9 think the kids come from multiple counties, but it is mainly for  
10 elementary students, and it's a summer camp program, STEM  
11 focused. I don't have the, I did have the numbers here  
12 somewhere of how many students have gone through the  
13 program. Let me find that. Since 1978, 7,200 students have  
14 attended there.

15 DELEGATE BYRON: Any other questions? Thank you.

16 MR. PFOHL: Madam Chair, I skipped right over the  
17 Carroll, Grayson, Galax Project, 3377. The Carroll, Grayson,  
18 Galax Regional Industrial Facility Authority is the applicant here  
19 for The Wired Road Connector Project, a \$300,000 request, to  
20 build a four-mile connector between the existing fiber in Galax  
21 and Carroll County, primarily serving businesses in and near the  
22 I-77, Exit 14 commercial area and the neighboring Carroll County  
23 Industrial Park. If you got off the interstate, going to the Galax  
24 meeting, that's, back in September, that's the area we're talking  
25 about.

1           The Wired Road, it's a project of the RIFA and a  
2 previously received one Commission broadband grant for  
3 \$919,000 in 2009, to build a portion of The Wired Road network.  
4 This build is expected to pass 153 businesses with an estimated  
5 40-percent take rate and 103 residences with a 30-percent take  
6 rate, resulting in more than 60 businesses and 30-plus  
7 residences, receiving service of at least ten over one, that starts  
8 at \$19 a month for ten over one, \$92 a month for 25 over 25,  
9 with higher monthly costs for larger bandwidth. Matching funds  
10 will be provided from an approved Appalachian Regional  
11 Commission (ARC) grant of \$300,000 that will approximately  
12 equally cost share all costs of construction labor and materials  
13 and customer premise equipment and installation. This results in  
14 an estimated construction and connection cost to the Commission  
15 of \$3,600 per subscriber.

16           DELEGATE MARSHALL: You said the Commission has  
17 already invested about \$900,000?

18           MR. PFOHL: Yes.

19           DELEGATE MARSHALL: Which committee did that  
20 come through?

21           MR. PFOHL: That would have been the Technology  
22 Program, which no longer exists. That was eight or nine years  
23 ago.

24           MS. CARTER: If I could just ask you a question, Tim.  
25 I know that in Southwest money was given to, the Southside

1 money was given to MBC, the health care, the network money,  
2 but in Southwest it was only just given to BVU and BVU took care  
3 of Bristol/Washington County, I believe, and then it moved over  
4 to the coalfield area, is that correct?

5 MR. PFOHL: There are several broadband grantees in  
6 Southwest Virginia, Scott County Telephone, Citizens Telephone,  
7 BVU, the Cumberland Plateau, which was working, The Wired  
8 Road.

9 MS. CARTER: Okay, so, The Wired Road was an  
10 initiative that started.

11 MR. BARKER: I'm Keith Barker, I'm City Manager for  
12 Galax and I serve on The Wired Road committee, representing  
13 Galax, Carroll, and Grayson Counties today. The initial grant we  
14 got, and we were a little late to the table when some of the  
15 larger grants were given. We got approximately a \$900,000  
16 grant in 2008. There is a Citizens fiber backbone that runs  
17 through Carroll, Galax, Grayson, and then maybe connected in  
18 North Carolina. The requests that we're making, and I need to  
19 clarify, and I apologize, our grant application is not very well  
20 written.

21 The request is actually for matching funds. We  
22 received an ARC grant to construct 4.25 miles of fiber that would  
23 connect our fiber network that comes from Galax and it'll connect  
24 it to the fiber network that we build in the Town of Hillsboro, part  
25 of Carroll County. We have matched that, we brought a request

1 to you about a year and a half ago, it was for the \$300,000  
2 match, and that was referred to VRA for loan proceeds, we went  
3 through negotiations with them, and we ended up actually  
4 getting a better rate from a local bank. So, we borrowed, had  
5 borrowed \$300,000 to match the ARC grant. We have an  
6 engineer hired at this point, we're in the design process, we're in  
7 the permitting process with VDOT to construct this 4.25 mile link  
8 of fiber connection along Airport Road.

9 The request is for \$300,000 from the Tobacco  
10 Commission to actually provide all of the last mile connection  
11 along that route. We're actually putting up \$600,000, \$300,000  
12 of which The Wired Road has already borrowed, and \$300,000  
13 from ARC, and then the \$300,000 from Tobacco, will actually  
14 provide the connections. So, the per dollar cost is actually  
15 around \$1,200 per household and business per connection along  
16 the route, not quite, it's not quite the 3,000 that's shown.

17 What this will do is give us a, just a solid connection,  
18 between the, our Cola facility that's located in Galax over to the  
19 Town of Hillsville, will serve the industrial park, it will serve all of  
20 the businesses along that I-77/58 area, Airport Road. The total  
21 will be past or about 400 tax parcels along that route, so we're,  
22 and then a number of those, I think 20 of those have multi-  
23 tenant facilities, where they're in a multi-residential or multi-  
24 commercial, so the take rate may be a little bit less than the 40  
25 percent. We anticipate that we'll have a pretty good reception

1 through that area.

2 We did conduct a countywide survey between Galax,  
3 Carroll, and Grayson earlier this year as part of an overall study  
4 about what our next steps need to be. We mailed out surveys to  
5 every citizen in Galax, we tried everybody through large buildings  
6 that the counties have, and then we made them available online  
7 and through public libraries, we got about 2,000 responses back,  
8 and the vast majority of those overwhelmingly just said they do  
9 not have good broadband service and are looking for options that  
10 might be available. A number of them are using either  
11 HughesNet or the satellite by provider or they had very limited  
12 broadband through their provider or they're using just cell phone  
13 service only. Our overall study, we also have looked over the  
14 past year what it's going to take for us to expand more into the  
15 counties.

16 Galax itself, quite honestly, is fairly well served  
17 between a number of providers with Century Link and Comcast.  
18 The county, there is not the density that necessarily makes a  
19 business case for a number of the large providers to go there.  
20 For us to try to get fiber, we understand that that's very cost  
21 prohibitive. We have been doing studies, and we're getting  
22 ready to roll out a tower in one community called the  
23 Summerville community in Grayson County. Our board voted on  
24 it in November and December to proceed with that project, with  
25 the idea of trying to locate the smaller towers and create a tower



1 network through the region. This is a test case for us. We think  
2 we can actually build a tower for around \$20,000. We have 45  
3 households that it could serve, and hopefully from there, we  
4 would see 15 to 20 that are interested in that service.

5 But we think long-term, while we would prefer fiber  
6 everywhere, we just know that economically it's going to be  
7 tough to do that. We think if we could multi-purpose these  
8 towers to serve perhaps emergency services and perhaps even  
9 cell phone at a later date, that it would be much more of a  
10 benefit to the community.

11 But again, this request is for that four-and-a-half mile  
12 section that'll connect Route 620 to the Hillsboro Network that  
13 we have and that will give us a connectivity all the way from  
14 Galax to Hillsville. Thank you.

15 DELEGATE BYRON: Any other questions? Thank you  
16 very much.

17 MR. PFOHL: Next on the order is one of the wireless  
18 projects, it's Dinwiddie and Amelia, we'll jump over that, as well  
19 as the Halifax project, which is wireless, and then that puts us at  
20 Lunenburg County. That's the Last Mile broadband project,  
21 \$323,300 requested.

22 The co-applicant with the county is Central Telephone  
23 Company of Virginia, doing business as CenturyLink, which states  
24 that it serves 5.9 million customers in 37 states. The application  
25 states that CenturyLink approached the county with a plan to

1 serve areas of eastern Lunenburg where its service has been  
2 requested by prospective customers. The project area contains  
3 about 650 households and a 40-percent take rate is estimated,  
4 resulting in 260 households subscribing for DSL service that is  
5 \$45 per month for speeds up to 25 megabits.

6 The co-applicant cautions that an estimated 75 of the  
7 260 subscribers will not be able to reach ten over one speeds due  
8 to DSL system design and the customer's distances from the  
9 provider's facilities. Business rates begin at \$70 per month. The  
10 resulting cost of the Commission per subscriber is just over  
11 \$1,200. The budget appears to equally cost share with the  
12 Commission the installation of four devices in Kenbridge and  
13 South Hill for DSL service and installation of about 18 miles plus  
14 of fiber.

15 MS. GEE: Good afternoon. I'm Tracy Gee, the County  
16 Administrator for Lunenburg. I apologize, I'm a little under the  
17 weather, so I'm going to try not to cough through this. And I  
18 also have Al Carabello from CenturyLink, he's here representing  
19 Rich Shawn, who is the co-applicant with us, but Rich is out of  
20 the country.

21 MR. OWENS: One question. On this paper, it says  
22 here your download speeds would be one to 25 and your upload,  
23 you don't know what that might be?

24 UNIDENTIFIED: Say again.

25 MR. OWENS: It says your download speeds would be

1 between one and 25 download, and your upload speed, you  
2 didn't have anything for it. What would be the upload?

3 UNIDENTIFIED: The minimum is ten and one up, up  
4 to 25, those are shorter links, will get upwards of 80 to 100 meg.

5 MR. OWENS: Of the 650, how many of them are  
6 businesses?

7 MS. BLANKS: We did not indicate in the application,  
8 didn't count the businesses, because we do have several home  
9 businesses and large farming operations that are in that area,  
10 but we did not include those, because we can't, we didn't want to  
11 guarantee that there would be business providers linking on or  
12 business customers linking on. I do know that one of those  
13 farming operations, that there's a large tobacco farming  
14 operation that does use GPS on their equipment. And so this  
15 would be very beneficial to them.

16 We do have a trucking operation, so that would be  
17 very beneficial to them, because they use a lot of GPS  
18 coordination for their operation. It's a rural area, definition of  
19 Last Mile, and we have a lot of underserved folks in that area.  
20 Forty percent is very modest, but we did not want to put in  
21 writing anything above that as far as the take rate, but we do  
22 feel very confident that there will be much more than 40 percent.  
23 We didn't want to put that in the application as we couldn't  
24 guarantee it.

25 DELEGATE BYRON: I know that CenturyLink, do you

1 have any near this vicinity --

2 UNIDENTIFIED: So, I don't believe they were, I think  
3 you're correct in stating that, just completed twelve exchanges  
4 here in Virginia in the past two years --

5 DELEGATE MARSHALL: Did you look at wireless?

6 UNIDENTIFIED: No.

7 MS. BLANKS: This application, we planned on the  
8 infrastructure, and so that is why we went with the partnership,  
9 the existing structure that's already there in a mainly rural area.  
10 There's very little that's going to touch either of our counties.

11 MS. COLEMAN: It appears that you won't be able to  
12 achieve ten to one?

13 MS. BLANKS: They would achieve ten to one, but not  
14 25 to two.

15 MS. COLEMAN: So, 29 percent of your customer base  
16 you wouldn't be able to achieve ten one.

17 UNIDENTIFIED: That's what was indicated because  
18 DSL was a distance from the central office, so these customers  
19 would not achieve ten over one.

20 UNIDENTIFIED: That's correct, and they would  
21 probably get something.

22 MS. COLEMAN: Would there be any plans to enhance  
23 that service?

24 UNIDENTIFIED: We'd have to revisit this because  
25 right now it's uneconomical for CenturyLink to go in there and do

1 this work, but with a possible grant we could provide the  
2 customers with higher speeds.

3 MS. BLANKS: I will say that I am currently on  
4 attachment for one of those areas, on the outside edge, and I'm  
5 currently downloading at 1.1 on a good day and uploading at .3  
6 on a good day. CenturyLink is the provider.

7 Because of the distance that I am from the base,  
8 that's the problem. But there's quite a few users already.

9 DELEGATE BYRON: Thank you very much.

10 MR. PFOHL: Now, we'll talk about two projects in  
11 Southwest Virginia, and the first of which is submitted by the IDA  
12 of Russell County. It's the South Buchanan/North Central Russell  
13 Counties Broadband Expansion Project, a request for \$3 million.  
14 The IDA's co-applicant on this project is Grundy-based iGo  
15 Technology, Incorporated. The applicants propose a project to  
16 expand its existing gigabit Ethernet network in Russell and  
17 Buchanan Counties that will be matched by a recently announced  
18 \$3 million federal RUS grant that is reported to serve 600-plus  
19 premises. Maps provided in the application show two distinct  
20 project areas: one in Russell between Buchanan County and  
21 Russell County communities of Finney and Cleveland, serving 750  
22 premises to be funded by the Commission, and one in Buchanan  
23 serving 676 premises to be funded by RUS. They're going to be  
24 connected and expanded through this request.

25 Construction includes 82-plus miles of new backbone

1 and middle mile infrastructure, that's 45 in Russell County that  
2 the Commission would be involved with, and 37-plus in  
3 Buchanan. Commission funds would be used on the Russell  
4 project area across all budget lines, including engineering,  
5 permitting, construction materials and labor, pole attachment  
6 make ready, customer premise equipment and installations, et  
7 cetera.

8 The iGo project would then connect to SCTC, or Scott  
9 County Telephone Fiber in its proposed project area, which is the  
10 subject of the next project, near Cleveland to provide additional  
11 redundancy for the Buchanan network. The additional proposed  
12 funds requested from the Commission will pass a total of 1,426  
13 households in the two project areas, with a projected take rate of  
14 50 percent, resulting in an anticipated 713 new subscribers  
15 across both project areas. Ninety percent of the new subscribers  
16 are expected to take service of ten over one to 25 over three,  
17 with the remainder taking service of 25 over three or more.

18 Monthly charges for iGo broadband begin at \$50 for  
19 10 over one, \$80 for 20 over two, and \$100 per month for 30  
20 over five service. The cost to the Commission per anticipated  
21 subscriber is \$4,200, although if all Commission funds are to be  
22 used in the Russell project area as it appears, the outcomes for  
23 the Commission-funded project appear to be 750 premises  
24 passed, with 375 anticipated subscribers at a per subscriber cost  
25 of \$8,000.

1 MR. VANDYKE: I'm Steve VanDyke, President of iGo  
2 Technology.

3 DELEGATE BYRON: Can you elaborate on that last  
4 piece of information which were given that would raise the  
5 pricing \$1,000 per subscriber?

6 MR. VANDYKE: Let me look at the map here for a  
7 minute. My CPA couldn't be with me today, so give me just a  
8 second. If you could let me speak to him in a moment, I can  
9 report back to you all on that, I want to make sure it's correct.

10 DELEGATE BYRON: On that?

11 MR. PFOHL: That is taking a \$3 million request to us,  
12 which it appears to be entirely from the Russell County project  
13 area. Taking the \$750 premises passed in Russell County and  
14 375 subscribers there, that's where that figure comes from.

15 The RUS-funded aspect is entirely Buchanan, and to  
16 my knowledge, it has been announced, but does not require a  
17 match. It's an opportunity to have \$3 million of matching funds.

18 DELEGATE BYRON: Typically building off of another  
19 project that, in fact, they just got funds for, it's not really a  
20 three-three match. It's kind of an additional build-off with  
21 another grant you got.

22 MR. VANDYKE: It's our second grant. We got one in  
23 '16 of \$1.8 million, and we recently got an additional \$3 million  
24 and it would connect fairly close to the Buchanan/Russell line  
25 actually where this grant ends currently.

1 DELEGATE BYRON: You have a network now.

2 MR. VANDYKE: We're in the process of building,  
3 getting our first grant build out now. We've historically been a  
4 wireless provider, we have been 23 years, but we've been a  
5 wireless provider for about 11 years in that area. And most of  
6 the data and knowledge we have about where broadband is  
7 needed, we got from lists that we keep in our office and so forth,  
8 people that call in and can't get our wireless service. We know  
9 about where all the dead spots are in that part of Russell or  
10 pretty much all of Russell County, we've got an enormous  
11 amount of network over there, and it's, we have less in  
12 Buchanan County because it's pretty hilly there.

13 DELEGATE BYRON: Any kind of wireless or just the  
14 wireless that exists? Is there any kind of wireless, any  
15 technologies that are out, is that just the wireless that you have  
16 existing today?

17 MR. VANDYKE: We use a lot of WiMAX products, and  
18 we're using some LTE to keep our speeds where they need to be  
19 with people and reliability. We don't install it if there's no quality  
20 to it. We use a mixed bag, like LTE, WiMAX, but what we have  
21 works pretty good and it won't go around the mountain and so  
22 forth.

23 DELEGATE BYRON: Tim, is the \$3 million really a  
24 match?

25 MR. PFOHL: It is the same network and they are



1 connected and there would be some interconnection between the  
2 Buchanan project and the Russell County project area. So, I  
3 guess it's all in how you look at it. They're connected, but not  
4 quite contiguous, but they are connected.

5 DELEGATE BRYON: How long would the build out  
6 take?

7 MR. VANDYKE: The Russell County side we're talking  
8 about, probably about three years, from start to finish.

9 DELEGATE BYRON: You're just getting started on the  
10 other one now?

11 MR. VANDYKE: Yes. We're kind of pretty close to  
12 stringing fiber on the one we're doing now. That's the part that  
13 goes much quicker.

14 DELEGATE BYRON: You have to complete that first  
15 though?

16 MR. VANDYKE: Yes.

17 DELEGATE BYRON: That's still a three-year time  
18 period?

19 MR. VANDYKE: Yes, I would say probably in the  
20 spring on that one, and that's, that's the connecting point at the  
21 end of that grant, that will connect with this.

22 DELEGATE BYRON: Any other questions?

23 MS. COLEMAN: The two project areas, what keeps  
24 these from being contiguous other than in a line?

25 MR. VANDYKE: You're talking about where this

1 connects to the existing?

2 MS. COLEMAN: To the Buchanan and the Russell  
3 County portions?

4 MR. VANDYKE: They actually have a connecting point  
5 that would fit in this proposal, which is supposed to be a network  
6 connection point there, so it would be somewhat contiguous, I  
7 think there. There are some places on, if you can see, I've  
8 actually got a better, there it is, but there is a place that those  
9 blue lines are kind of considered backbone, but there are some  
10 small pockets, if you zoom in on that, that we actually can pick  
11 up some uncertain customers to, actually prevent the people  
12 from being in what I call in a box, because if we bypass them,  
13 they'll never have a chance to get anything. And there are some  
14 good pockets in that flow that can be served. The real backbone  
15 of that is right where the blue line intersects Route 80 and goes  
16 out to the extreme left where it ends out there. Some of that  
17 blue coming in that connects from our connecting point where  
18 the red and blue connects up to that yellow line. There's actually  
19 several customers in there that we can put a network access  
20 point there.

21 There's also some chances in this with our wireless,  
22 experienced that, if there turns out to be some customers that,  
23 some things of that nature with their fiber, we could do like a  
24 hybrid situation and do some wireless backhauls, wireless access  
25 points off of.

1 DELEGATE BYRON: Thank you very much.

2 MR. PFOHL: The next project is Scott County  
3 Telephone, Big Ridge and the Surrounding Areas Broadband  
4 Initiative request, also for \$3 million. Scott County Telephone  
5 has previously received grants totaling \$7 million since 2005  
6 from the Commission to provide broadband service to premises  
7 across multiple counties in Southwest Virginia, including backhaul  
8 for the Coalfield Coalition's 4G LTE wireless regional project that  
9 offers Verizon Wireless service. SCTC proposes a project to  
10 expand its existing gigabit Ethernet network in Russell and  
11 Dickenson Counties that will be matched by a recently separate  
12 announced \$3 million federal RUS grant that is reported to serve  
13 600-plus premises. Maps provided in the application show two  
14 distinct project areas, one in Russell serving 750 premises  
15 bounded roughly by the Towns of Lebanon, Cleveland,  
16 Castlewood, and Hansonville, to be funded by the Commission,  
17 and one in Dickenson County serving 600-plus premises between  
18 Haysi and Clintwood to be funded by the RUS.

19 Construction includes 65 new backbone miles and 41  
20 last miles. Commission funds would be used again apparently on  
21 the Russell County project area across all budget lines, including  
22 engineering, permitting, construction materials, and labor,  
23 customer premise equipment and installations, et cetera. The  
24 additional proposed funds requested from the Commission will  
25 pass a total of 1,353 residences in the two non-contiguous

1 project areas, with a projected take rate of 55 percent, resulting  
2 in an anticipated 744 new subscribers across both project areas.

3 Monthly user charges for SCTC broadband begin at  
4 \$40 for three megabits, \$50 for five, and \$60 for 25 megabits.  
5 SCTC also offers a broad array of additional services, including  
6 phone, television, security, and other services offered in bundles  
7 or a la carte. SCTC estimates that all new subscribers will take  
8 service in the 10 over one to 25 over three speed ranges.

9 The cost to the Commission for anticipated subscriber  
10 is just over \$4,000, but, again, if all Commission funds are used  
11 in just the Russell project area, the outcomes in that area appear  
12 to be 750 premises passed, with 412 subscribers at a per  
13 subscriber cost of just under \$7,300.

14 MR. FRANKLIN: I'm Bill Franklin, I'm CEO of Scott  
15 County Telephone, but I think you made a mistake on speeds  
16 when you said it was \$8,000 per subscriber. It should have been  
17 in that \$4,000 range.

18 MR. PFOHL: That's including both project areas.

19 MR. FRANKLIN: Okay. I want you folks to know we  
20 appreciate the opportunity to come up here and talk to you.  
21 We've received funds from the Commission before. We've  
22 expanded our network and we have a fairly large footprint in  
23 Southwest Virginia.

24 I know there were a few questions in the prior one  
25 about the projects not being contiguous and I didn't really think

1 that the rules said that they had to be contiguous, but we are  
2 leveraging the \$3 million that we're getting from RUS to apply for  
3 this grant in Russell County. One reason they're not contiguous  
4 is one of the speakers earlier this morning, they have some  
5 service area that's in between them. One rule is that you can't  
6 overbill somebody that's already providing service, so we moved  
7 this project east of his service area, so that kind of moved it  
8 further away from Dickenson County.

9           If you look at the region from an economic standpoint,  
10 if you look at Dickenson County, that's a coal-based economy  
11 and 20, 25 percent of the population in Dickenson County is  
12 under the poverty level from an income standpoint, 21.2 percent  
13 of the population in Russell County is under the poverty level  
14 from an income standpoint. Nowhere is broadband needed more  
15 as far as to try to stimulate the economy. We do, do, we do  
16 video, broadband security systems, long distance service, we'll  
17 provide all that over this network. And we'll leverage all the  
18 services that we offer. And our network will, a gigaband at each  
19 location if it's needed.

20           I will tell you that we've had some customers in  
21 Southwest Virginia in the last six months that we've actually had  
22 to request or a bid for two, two connections that are 100 gig, and  
23 I never dreamed I'd see the day that you'd get a 100-gig  
24 connection in Southwest Virginia. So, we've got plenty of  
25 residential customers right now that have five or six TVs, regular

1 HD programming, and they get 25 meg internet. So, there's a  
2 lot of them that's above 50 megaband within each in their home,  
3 the residential home right now. So, if you look at Russell County  
4 and Dickenson County, 40 to 60 people per mile is the population  
5 density. From an economic standpoint, we wouldn't be able to  
6 build this if we didn't get some grant funding, it wouldn't be  
7 economically viable. But I think if you look at some of the  
8 businesses that have moved into the region because of the fiber  
9 for the broadband capacity that's in the region, I think it has  
10 created jobs, it will continue to create jobs, and I think it would  
11 be a good investment for the Commission. And that's about all I  
12 got to say. Has anybody got any questions that you'd like to  
13 ask?

14 iGo is serving in the region, and when we build these  
15 two networks, we'll be contiguous, they'll touch each other, and  
16 that will give him the opportunity to purchase redundant  
17 bandwidth from us to serve those people. I think it will give him  
18 the opportunity to buy his bandwidth at a cheaper price. In  
19 other words, that gives him the ability to serve at a cheaper  
20 price. We don't look at, we're co-op, so we don't look at, the  
21 bottom line is not our money, we're trying to get the service out,  
22 that's what we're trying to do. Any questions?

23 DELEGATE BYRON: Yes. What's was your last grant  
24 you received?

25 MR. FRANKLIN: I don't know, it's been a little while.

1 MR. PFOHL: They were on --

2 MR. FRANKLIN: Broadband to the home on Sandy  
3 Ridge in Dickenson County, and we got a million dollars then.

4 MR. PFOHL: They were again kind of late to the table  
5 during our Technology Committee era, but they got one of the  
6 last of our funding rounds of the Technology Committee. And  
7 then during the ARRA stimulus era, the VTOP program, we  
8 created a reserve fund to provide pre-proof match for Federal  
9 VTOP proposals, and I think that was the last time, '09 or '10 or  
10 something in that timeframe, or maybe 2011.

11 MR. FRANKLIN: We didn't get but one, we had to  
12 rescind it because we went from VTOP to RUS, so we rescinded  
13 it.

14 MS. COLEMAN: I just want to make sure that I  
15 understand. The RUS grant and our grant are not contiguous  
16 areas?

17 MR. FRANKLIN: They're not, but each one of them  
18 are contiguous to our existing network. We have a network that  
19 comes up south of Dickenson County, we've got network comes  
20 up south of Russell County, so both of these areas join our  
21 network, but they don't join, but when we touched Steve's, and  
22 Steve's network wraps around and lacks just a little bit, there's a  
23 hole in both of them there that we'll have to build in before it'll  
24 touch our network in Dickenson County, and we plan on doing  
25 that. So, that basically will give us some more redundancy when

1 we get that done for him and for us. So, it'll increase the  
2 reliability of both of our networks for those people in that region.  
3 Once we get that other little piece in, if you guys can help us  
4 here today.

5           And to give you an example, we have been working  
6 together, and we work with all the, I mean we're a small  
7 provider, but we work with all the small providers there. We had  
8 a customer, and you people don't know where this is, but it's on  
9 High Knob and he's ten miles away from our network, although  
10 he lives in Scott County, it's a national forest between our  
11 network and where this fellow lives. And so he built a cabin up  
12 there and he decided he'd just move up there. And so we had  
13 told Verizon about 20 years ago that they could serve the top of  
14 the mountain because they already had some network there. So,  
15 for whatever reason, they couldn't serve him.

16           So, he called us, and we said you're ten miles away,  
17 so he complained to the State Corporation Commission. And  
18 they called and wanted to know what's going on. So, we're  
19 discussing it, and I gave Steve a call, and Steve said, well, just  
20 shoot him a wireless shot. So, he came down, and we did a  
21 wireless shot from down at the bottom, over on the next  
22 mountain across the valley, that mountain, it's 10.6 miles, and  
23 we got him 30 meg. internet, they couldn't do wireless. So, we  
24 wouldn't have been able to satisfy that customer if it hadn't been  
25 our relationship with Steve.



1           And so that's the first wireless customer. Hopefully,  
2 we'll have many more. We're looking at that technology, at the  
3 blueprint white space. And we're getting ready to do a wireless  
4 project. So, with Steve's help, hopefully, it will be successful.  
5 Any other questions?

6           DELEGATE BYRON: Thank you very much.

7           MR. PFOHL: I think that covers all of the wired  
8 solutions and brings us back to page 5 for the first of three  
9 wireless projects.

10           Dinwiddie County is the lead applicant on the  
11 Dinwiddie and Amelia County Regional Broadband Initiative. The  
12 co-applicant is Amelia-based StraightUpNet LLC, which was  
13 selected in the RFP process and has already begun offering LTE  
14 wireless broadband in a limited portion of Amelia County. The  
15 project would reportedly serve 90 percent of the two counties,  
16 with LTE service from 14 existing and proposed vertical assets or  
17 towers, in addition to serving portions of neighboring counties  
18 that abut the project area.

19           The application estimates an 83-percent take rate  
20 from the more than 15,000 potential subscribers, resulting in  
21 12,570 subscribers, and that breaks out to 10,900 residences  
22 and 1,677 businesses, 97 percent of which would have service  
23 from ten over one to twenty-five over three. Subscribers are  
24 roughly divided between 65 percent in Dinwiddie and 35 percent  
25 in Amelia. Matching funds would be provided entirely by the two

1 counties, with Dinwiddie at a \$1 million contribution and Amelia  
2 at a \$683,000 contribution from a combination of County General  
3 Funds and debt financing.

4 Commission funds are requested for an equal cost  
5 share with the county for materials for new towers and micro-  
6 POPs, labor and electronics. The co-applicant is not listed as  
7 providing project funds, although the project budget does not  
8 clearly account for engineering, permits, and customer premise  
9 equipment and installation. So, there could be some project  
10 matching funds at that point. Monthly subscriber charges begin  
11 at \$50 for four over three service, \$70 for eight to ten meg over  
12 six upload, and \$100 for ten to fifteen download and eight  
13 upload.

14 StraightUpNet's business connections start at \$139  
15 per month, and all residential and business users are required to  
16 enter into a two-year contract. If the 83-percent take rate,  
17 which far exceeds any that we saw in these applications, is  
18 accepted as a realistic subscription percentage, the one-time  
19 construction cost to the Commission is \$135 per subscriber.

20 We also went into that chart and inserted a more  
21 industry standard 50-percent take rate, that bumps the cost per  
22 premise pass to \$114 and cost per subscriber connected to \$228.

23 DELEGATE BYRON: Anyone here to represent this  
24 application? Any questions for Tim? Move on then.

25 MR. PFOHL: The next two wireless projects are

1 Halifax County and Pittsylvania County. They are using the same  
2 private co-applicant and are integrated project areas, and they  
3 hope to go into closed session. First off, I'll lead off with the  
4 Halifax project.

5 Halifax County's co-applicant is SCS Broadband, doing  
6 business as AcelaNet, a Nelson County-based company that  
7 currently offers wireless LTE and Wi-Fi broadband service from  
8 vertical assets, such as towers in several Central Virginia  
9 counties, including portions of Pittsylvania and the Montvale area  
10 of Bedford. SCS was selected by Halifax during the RFP process  
11 that was conducted about a year ago.

12 This request would provide service in the first two  
13 phases of a four-phase plan to serve northern and central Halifax  
14 County residents and businesses. The total cost of Phases 1 and  
15 2 is \$663,000, with the county providing \$50,000 of matching  
16 funds, and SCS providing \$407,000 for costs to purchase, lease,  
17 or build towers and community data poles, as well as all costs for  
18 customer premise equipment and installation.

19 The application estimates that in the first two phases  
20 more than 2,800 residences and 172 businesses will have access  
21 to wireless broadband, with estimated take rates of 25 percent,  
22 low take rates that we saw in this round, that will result in an  
23 anticipated 744 subscribers. Commission funds are requested for  
24 50 percent of the costs of towers and poles, resulting in a cost  
25 per subscriber to the Commission of \$277. Monthly residential

1 subscriber fees begin at \$35 to \$40 for ten to 15 downloads, and  
2 uploads vary, and range up to \$115 to \$120 per month for 50  
3 megabit service. Business subscribers will pay \$150 a month for  
4 ten to fifteen meg service, ranging up to \$300 a month for 20 to  
5 25 megs.

6 DELEGATE BYRON: This is not the same company.  
7 So, is it, the technology can be discussed together or are we  
8 going to be discussing the regions together, does it matter to  
9 anybody?

10 MR. PFOHL: As you prefer, you might want to hear a  
11 summary of the Pittsylvania's request, it's very similar.

12 On page 8 is the Pittsylvania Broadband Initiative  
13 request for \$491,000, same co-applicant, SCS Broadband, LTE  
14 and Wi-Fi currently operating in part of Pittsylvania and part of  
15 Bedford selected during the RFP process. Off of ten towers, part  
16 of the four-phase plan, very similar construction in terms of the  
17 budget. And the exact same information in terms of the cost per  
18 services and speeds, very similar, nearly identical project.

19 MR. ROWE: My name is Matt Rowe, I'm Director of  
20 Economic Development, Pittsylvania County. Along with  
21 Kimberly, would you introduce yourself.

22 MS. BLANKS: My name is Kimberly Blanks, I'm the  
23 Management Assistant for Halifax County.

24 MR. ROWE: Then we have a representative here with  
25 SCS Broadband, Ronald Wetchel, so any kind of technical

1 questions, Ron is definitely the guy to answer that.

2 Delegate Byron, we thought it would be best to show,  
3 as far as regionalism, that, of course, the Tobacco Commission  
4 embraces, by literally meet up here and doing this presentation  
5 together. Because our network is going to depend upon Halifax  
6 County and Halifax County's network is going to depend upon us.

7 DELEGATE BYRON: Does that mean when they go  
8 down, they go down together, too?

9 MR. ROWE: Well, actually, that's kind of the unique  
10 thing that we're doing is the fact that we're actually building  
11 upon the investments that you all already made. So, we really  
12 took a look and did an introspection back to ourselves, and we  
13 said, okay, what is our goal here? Is our goal to have data  
14 centers at every single house, or is our goal for folks to be able  
15 to get online, get online degrees, which, once again, build upon  
16 the investments you all have already made in Workforce  
17 Investment, to be able to swipe credit cards, to conduct business  
18 from the home. And that really is, is really more out goal, and  
19 we want it to happen in a cost-effective manner that is also  
20 timely in nature. So, one of the unique things that our regional  
21 courses affect, you guys have made a tremendous investment.

22 So, we all have interstate in Southern Virginia, but we  
23 do have the interstate as far as internet-wise, which is  
24 broadband. So, we're using that as a backbone. In Pittsylvania  
25 County, we already had existing towers that were in place that

1 were originally built and paid for, for emergency 911  
2 communications. And in order to meet the 911 communication  
3 requirements, it had to be disbursed strategically throughout the  
4 county. We already had 300-foot tall towers that had backhaul  
5 to fiber, why are we not going forward. And it's a proven  
6 psychology, I've worked with the SCS Broadband before in  
7 another locality, and we're trying to find a way to get service to  
8 our citizens for the cheapest cost possible.

9 We heard some conversations this morning about  
10 some of the considerations for user rates, is it low income  
11 friendly, is there flexibility, we think that's one of things that  
12 makes our proposal so unique is the fact that when somebody  
13 like SCS Broadband that does not have a one-size-fits-all plan is  
14 that certain folks, for example, if you're surrounded by pine  
15 trees, you're going to need a different type of technology than if  
16 you had direct line of sight to the actual towers itself.

17 And so one of the things that you see with SCS  
18 Broadband, too, as far you can pay by the month, you can vary  
19 into long-term contracts, but it's a guaranteed 10 megabit plan,  
20 no data-overage charges, no data caps, which is what always  
21 holds us and gets us on the back end, so we're really pleased  
22 with what we have before you. We're blessed with the fact that  
23 the just topography-wise in the middle of the county, sticks up  
24 like a sore thumb, and so it allows us to have line of sight, all of  
25 these different towers for a very cost-effective option. And then

1 those towers are able to talk into Halifax County's network and  
2 the Mid-Atlantic Broadband system there. Mid-Atlantic  
3 Broadband has been great to work with.

4 In Pittsylvania County, we already have the first phase  
5 of the network up and running. So, it is something that is not pie  
6 in the sky. It's actually happening. Many of you know Greg  
7 Sides, Greg is a happy subscriber to SCS Broadband. So, we're  
8 seeing great results so far. At this point in time, as far as  
9 survey-wise, we've received over 500 inquiries for service, and  
10 we'll have the first phase that we're looking at completed by the  
11 end of June. I think that summarizes what we're seeing in  
12 Pittsylvania County.

13 MS. BLANKS: We, too, are in Halifax County are  
14 taking advantage of all this. I do want to take one moment, we  
15 mentioned that the take rate in Halifax is a little lower. I just  
16 wanted to explain that. We only took 25 percent of our expected  
17 take rate for the grant application. We anticipated getting there  
18 within the grace period. Our build-up would be approximately 12  
19 to 18 months, but we do anticipate well over 4,000 subscribers  
20 eventually because that's why the take rate is a little lower. We  
21 just estimated 25 percent.

22 DELEGATE MARSHALL: We funded a couple of years  
23 ago the white space that, through Microsoft. So, I don't know  
24 where on that map that the white space would be, are we  
25 overlapping with what you're going to do in Halifax County?

1 MS. BLANKS: I think what, Tad might be able to  
2 explain a little bit more, but I do believe white space, you can  
3 correct me, is only in the K-12 system, and I think it's  
4 educational based only, it's not full access in a household for  
5 adults to use, et cetera, it's just for learning in the K-12 system.

6 DELEGATE MARSHALL: Tad, is that correct?

7 MR. DERISO: Yes. I'm Tad Deriso, President of Mid-  
8 Atlantic Broadband. That is correct. The system itself is for  
9 educational content. We have ISPs that are using that to,  
10 regular internet, so just like with SCS and others, they were able  
11 to use the towers that were built with Tobacco funds in the TD  
12 white space for that project. It's hard to say overlap because  
13 some may be and some may not, but they can all co-exist.

14 DELEGATE BYRON: In an unserved area?

15 MR. DERISO: Yes, most all of Halifax and Charlotte  
16 County, I'm just looking at the map, I have not seen these maps  
17 before, I'm trying to take a quick glance. Yes, right off the top of  
18 my head, I don't see any of those tower sites that are on top of  
19 where we have tower sites, like Microsoft and ISP.

20 MS. BLANKS: In Halifax County, the area we have for  
21 our project, we're going into the underserved and unserved areas  
22 in Halifax County with our project.

23 DELEGATE BYRON: What do you define as  
24 underserved?

25 MS. BLANKS: They are not able to get the speeds



1 that they need. We have one company in the northwest part of  
2 the county, he literally has do it between 11:00 p.m. to 5:00  
3 a.m. because he cannot get the speed he needs to conduct  
4 business during regular business hours.

5 MR. ROWE: We actually have a similar situation.  
6 Danny was actually there at the announcement, the whole  
7 reason they announced \$7 million expansion was due to us  
8 knowing they had that broadband capacity coming in. And this is  
9 exactly the same way. They couldn't even balance their books  
10 except at the dead of night, this is the company that has turned  
11 over 20 million plus dollars a year. It has really given us,  
12 Pittsylvania County, I'm sure, our neighbors in Halifax will also  
13 start this as well, it's given us another tool for economic  
14 development. The fact that one of these data poles to allow the  
15 receiver and transformer to get above the tree line. We're  
16 looking at a cost of \$11,000 to \$13,000 per pole. I'd much  
17 rather provide that as an incentive for a company that's hiring 10  
18 to 15 folks. The pole can't run away, it also allows me to then  
19 serve additional households around us. If anything, it's added  
20 another incentive tool for our toolbox.

21 DELEGATE BYRON: What are the funds being used  
22 for?

23 MR. ROWE: The funds are being used on existing  
24 towers, and that equipment is very expensive equipment. SCS  
25 Broadband has already invested heavily into Pittsylvania County

1 to do the first phase of our project, and they're also working on  
2 additional private leases on private communication towers. If  
3 you take Franklin County, for example, that's one of the  
4 situations where they're looking at towers all throughout the  
5 Tobacco Footprint. In Pittsylvania County particularly, there's a  
6 tower that would overlap into Franklin County. And so it's one of  
7 the things where we're looking at commercial towers, but also  
8 looking at community relays and data poles, which our goal for  
9 this project which is last mile serviced.

10 And so you asked the question of underserved, we're  
11 dealing with folks where there is no service. There's old DSL line  
12 that's just been left to rot because you can't get the return on  
13 investment. We don't find it wise in Pittsylvania County, the  
14 largest county in the state, to run fiber.

15 MS. BLANKS: In Halifax County, the Commission  
16 funds would be used for the towers and community data poles.  
17 The more poles you have the more redundancy you have. If one  
18 tower goes down, they continue to talk to others.

19 DELEGATE BYRON: The company, SCS, how long  
20 have you been established?

21 UNIDENTIFIED: SCS Broadband was acquired, I'd say  
22 around 12 years. The umbrella company purchased SCS  
23 Broadband. The network we operate has been around 12 years.

24 DELEGATE BRYON: My other question that I had was  
25 how, I realize that some areas, we understand, in certain parts of

1 our world, the only solution is going to be wireless. How reliable  
2 is the service you're offering?

3 UNIDENTIFIED: We provide service for a lot of  
4 businesses. We provide 24/7 support for our business  
5 customers. You're dealing with some government entities that  
6 we do like a post office, or in some cases, clinics. In this case,  
7 both of these counties are working together, is there any  
8 connectivity. The connectivity is redundancy that we really like.  
9 We put a lot of redundancy in, so that if part of the network gets  
10 out, if a fiber line gets cut somewhere, then we have another  
11 source coming into that area. So, we look at a lot of redundancy  
12 in our network. It's expensive, but it's the way we like to build  
13 our network.

14 DELEGATE BYRON: Do any of the funds go to leases?

15 UNIDENTIFIED: No, just equipment on the towers  
16 and the towers.

17 DELEGATE MARSHALL: How many localities does SCS  
18 currently, how many customers do you currently have?

19 UNIDENTIFIED: Any given night, we like to think  
20 there's three, two to three thousand students online doing their  
21 homework. So, we look at the fact where our footprint is, so  
22 many counties now, but if we extend down through a bigger  
23 need area, we think, in Halifax and Pittsylvania.

24 DELEGATE BYRON: How many do you have now he  
25 was asking? You said in one night, do you know many customers

1 you have?

2 UNIDENTIFIED: We're at 2,000 customers.

3 DELEGATE BYRON: All right. If there's no other  
4 questions, thank you so much.

5 Now, I guess we've covered everyone. The question  
6 is we've doubled the amount, which is not unusual for us,  
7 doubled the amount that we put out there and you've been given  
8 facts, you have lots of homework you may wish to do before we  
9 come to a decision. Right now, I think the questions and the  
10 scope of all of those that we may want to present to the Staff or  
11 something to come back to you in the form of information, that  
12 you might want to bring that up now. Do you have any  
13 comments?

14 DELEGATE MARSHALL: So, Madam Chair, we're going  
15 to meet again next week to decide who's up and who's down?

16 DELEGATE BYRON: Right.

17 DELEGATE MARSHALL: What you're asking if we have  
18 any other information, you need ask it now, or either call Tim.

19 DELEGATE BYRON: Absolutely. My impression,  
20 because we certainly can't approach them all, there may be some  
21 that some people don't feel as strongly about, there may be  
22 some that they feel, I don't know, but I don't know how you're  
23 going to come to that decision. But we'll determine which  
24 projects and which funds are available, and then we just talk to  
25 the Commission about another round at some point. And some

1 might not need to be done immediately.

2 DELEGATE MARSHALL: Madam Chair, normally, R&D  
3 and Southside and Special Projects, we normally get a Staff  
4 recommendations. Are we going to be looking for Staff  
5 recommendations?

6 DELEGATE BYRON: They gave us their  
7 recommendations.

8 MR. FEINMAN: I feel like that's my cue. It was Staff's  
9 view coming into this meeting, while there might be a couple of  
10 slam dunks on this current list, that taking time to deepen our  
11 understanding of how these networks interact and avail ourselves  
12 further of other expertise around state government might lead  
13 the Committee to get a better Staff recommendation in a round  
14 that we have been contemplating a second round of broadband  
15 grants, that we've been contemplating ahead of the May  
16 meeting.

17 What we can do if it's the Committee's pleasure is  
18 between now and I guess we will have to publicly notice it this  
19 afternoon to meet the requirements of the meeting law.  
20 Between now and the next meeting, we can see if we can  
21 identify, it will not be the majority of them, but we'll see if we  
22 can identify some projects that we think are sure things yes and  
23 sure things no, just based on the metrics that you guys have  
24 described to us and the money middle, certainly the Committee  
25 can take action on anything it likes or we could ask if they come

1 back to us with a better offer or clarifying information for a  
2 further round in the spring.

3 DELEGATE BYRON: And if you leave feeling after that  
4 that there's something that you really feel, and the Staff can do  
5 this, as well, that we really need some further clarification on.  
6 We did talk about a third party. It was my impression there  
7 would be some that would be very clear to us that that third  
8 party evaluation wasn't going to differ much from the original  
9 information that we received or wouldn't make a big difference to  
10 us. That would be another option. Does that answer your  
11 question, Danny?

12 DELEGATE MARSHALL: I think so. The IT  
13 professional with Mecklenburg, could you come up and we ask  
14 you some more questions. You could have left earlier, you know.  
15 And recognize yourself again for me.

16 MR. LONG: Good morning, I'm VP of IT from  
17 Mecklenburg Electric Cooperative.

18 DELEGATE MARSHALL: All right. So, in your previous  
19 life, when you were at, what is it called, Blue Ridge?

20 MR. LONG: Blue Ridge Mountain MC. There's a lot of  
21 Blue Ridge.

22 DELEGATE MARSHALL: So, the Blue Ridge in Georgia,  
23 how did you all put the system together? Did you all do it  
24 internally or go outside to get an expert to come in, or how did  
25 you do that?

1           MR. LONG: We did it ourselves. We started initially  
2 by building connectivity to our substations, and then it grew from  
3 there, very similar with Mecklenburg Electric.

4           DELEGATE MARSHALL: You said in your remarks just  
5 before lunch that you all made some mistakes initially. And so  
6 what were those mistakes, and I know you consider Mecklenburg  
7 had made some mistakes, but can we learn from your mistakes?

8           UNIDENTIFIED: Early on we got into the dial-up  
9 business, and we branched out into the wireless business for a  
10 couple of years before we got into the fiber business. And we  
11 had a lot of trouble with it, making it work, that was the main  
12 one.

13           The other thing I'll mention is the grant funding was  
14 critical in getting those out to our consumers. As I mentioned,  
15 Habersham MBC formed a group and got a VTOP stimulus grant,  
16 \$26 million. Not only did that help us build out a portion of our  
17 network, but it also got us the cheaper data, and we were able to  
18 access real cheap data at 56 Marietta in Atlanta. Obviously,  
19 we're going to be able to do that, that piece with MBC, and  
20 they're going to help us with that. Early on was not picking the  
21 right medium, fiber is the correct medium.

22           DELEGATE MARSHALL: Maybe that's a matter of  
23 opinion. Blue Ridge in Georgia is in relation to Atlanta, which  
24 direction and how far from Atlanta?

25           MR. LONG: North of Atlanta, right on the North

1 Carolina line, right on the Georgia, North Carolina line, right in  
2 that North Carolina, Tennessee, Georgia corridor, it's a very  
3 mountainous region, it's a very rural region, it's very similar to  
4 Mecklenburg Electric's footprint in that it has, is eight customers  
5 per mile. Mecklenburg Electric is around seven, a very similar  
6 situation. Western North Carolina, and butts right up to  
7 Tennessee. Clay and Cherokee Counties in North Carolina.  
8 And Towns Union, right in the keystone of Georgia, north  
9 Georgia.

10 DELEGATE MARSHALL: Thank you.

11 DELEGATE BYRON: Any other questions?

12 All right, I want to thank the Staff for all their hard  
13 work, thank Stacey for putting the meeting together and the  
14 lunch.

15 Are there any public comments from anyone else in  
16 the audience? Okay, Stacey.

17 MS. RICHARDSON: Do you have a preference?

18 DELEGATE BYRON: Does the Committee have a  
19 preference or it being Monday versus Tuesday? I don't think we  
20 can do Tuesdays, Tuesdays are Full Commission, right?

21 MS. RICHARDSON: We can do it Monday, we can do  
22 it about 1:00 p.m.

23 DELEGATE BYRON: When is the Commission  
24 meeting?

25 MS. RICHARDSON: Tuesday.



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DELEGATE BYRON: At what time?

MS. RICHARDSON: 10:00 a.m. And then we have  
before that, we have, at 8:30 Tuesday morning work?

Okay, 8:30, Tuesday morning.

DELEGATE BYRON: Okay. Thank you very much.

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**PROCEEDINGS CONCLUDED.**

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**CERTIFICATE OF THE COURT REPORTER**

I, Medford W. Howard, Registered Professional Reporter and Notary Public for the State of Virginia at Large, do hereby certify that I was the Court Reporter who took down and transcribed the proceedings of the **Tobacco Region Revitalization Commission, Research and Development Committee Meeting**, when held on Wednesday, January 3, 2018, at 10:00 o'clock a.m., at Homewood Suites, Richmond, Virginia 23219.

I further certify this is a true and accurate transcript, to the best of my ability to hear and understand the proceedings.

Given under my hand this \_\_\_\_\_ of January, 2018.

\_\_\_\_\_

Medford W. Howard

Registered Professional Reporter

Notary Public for the State of Virginia at Large

MY COMMISSION EXPIRES: October 31, 2018.