The Southwestern Pennsylvania Commission
Regional Policy Advisory Committee
2 p.m. on December 11, 2023
42 21st Street, Pittsburgh, PA 15222

Members present were: Darin Alviano, Mike Belding, Arthur Cappella, Douglas Chew, Mark Critz, Pat Fabian, Aadil Ginwala, Sheila Gombita, Mark Gordon, Sherene Hess, Dusty Elias Kirk, Ann Ogoreuc, Leslie Osche, Johnna Pro, Mark Rafail, Jason Rigone, Byron Stauffer, and Jason Theakston

Others: Brandon Leach, PennDOT; Kimberly Yeakle, PA DEP; Patrick Joyal, SW Region Director, Office of the Governor; Chris Field, University of Pittsburgh; Chris Briem, University of Pittsburgh; and Alex Kotlyar, DCS Consulting Solutions

Staff: Kirk Brethauer, Leann Chaney, Ronda Craig, Dominic D'Andrea, Linda Duffy, Chuck Imbrogno, Jenn Lasser, Jeremy Papay, DJ Ryan, Ailisa Sobien, Cathy Tulley, Vincent Valdez, Sara Walfoort, and Andy Waple

1. Welcome/Introductions

Chairman Pat Fabian asked everyone to introduce themselves.

2. Action on minutes from the October 23, 2023 meeting

3. Update on the Save the Allegheny River Initiative (DJ Ryan, Director of Strategic Initiatives and Policy)

I want to talk about Congressman Reschenthaler's efforts. We mentioned to you last time that we had a meeting, where we decided on a few different courses of action. A lot of them related to asking our members of Congress for help. Congressman Reschenthaler sent a letter to the headquarters of the Army Corps of Engineers. "While many of us are seeking a solution to the lockage hour issue through the Water Resources Development Act process, we respectfully request that USACE ensure the service levels remain unchanged in the short term. Pausing any action that would reduce access and stymie growth will help our region maintain a robust and diverse economy centered on our river system." This letter was signed by all of the other elected officials from Southwestern Pennsylvania – Senator Casey, Senator Fetterman, Representatives Thompson, Deluzio. Lee, Joyce and Kelly. We're very grateful that this is a bipartisan, bicameral effort. The Army Corps is reacting to this. We have been contacted saying that they're looking at possible ways that they can keep the levels of service on hour locks at the same level for at least the time being. In addition, Senator Casey sent a response to the STAR letter. I'm highlighting two main points from that letter. Number one, the appropriations process is coming up so the Senator is working to establish a freight diversification task force through the already established Interagency Working Group of coal impacted communities. What the Senator wants to do is essentially establish a task force under that umbrella to diversify the freight that moves on the river. That process versus a legislative one. So it's ongoing, but the Senator was very hopeful that we could see some resolution on that. The second point with Senator Casey is that he is introducing an amendment to the Water Resources Development Act, that would freeze the levels of service on the Allegheny River until 12 months after an Army Corps led study is completed on the impact of the river. That's great news for us. We also believe that we're going to see support from our entire federal delegation in that regard. So separately, from those two initiatives, the STAR group is also working on our own study to understand the full economic impact of the river. And it'll possibly give us the fullest picture that we've had in decades. Courtney Mahronich Vita, Friends of the Riverfront, has been taking the lead on that effort, and heading up the work to secure funding and develop a very robust picture of all the different possible metrics that we can consider. I want to emphasize that this is progress. A lot of this is dependent on the actions of the US Congress. And as someone who worked there for a long time, I can tell you that there's no way to know how that's going to pan out. But we have really good people behind us. So I'm really enthused with the work that's been done there and I hope to have a lot more for you next year.

Question: Do you have any meetings coming up? DJ: We don't have one scheduled before the holidays. We did have a call about two weeks ago, just to give those updates to the larger group but now we're working solely on the study. We have a larger meeting scheduled in January. I'd be happy to make sure that committee is aware of it.

Question: Could you talk a little bit about the scoping study or is that still in the works? DJ: We had an initial meeting for the scoping of the site. So the study is independent of the Army Corps. We had an initial meeting where essentially, we said what do you want to see in here? And you can imagine all the different metrics that were out there. It was a very wide ranging study. The question that we're trying to answer is, how are we going to fund such a study? And that will help us to determine what level of study and how wide ranging we can be. But I think at the very least, we're hoping to assess not just the impacts of commercial navigation on the river, but the extensive recreation that the Allegheny River provides, as well as all of the businesses that recreational boaters and kayakers and everything else use along the river. So we're describing ecosystem and it'll be as wide ranging as we can afford it.

Commissioner Fabian: I think as an important piece of any study is the recreation part, at least in my neck of the woods in Armstrong County. Commercial traffic has decreased significantly since my childhood. But what has increased is the number of recreational boaters and obviously they don't count recreational boating right now in the Army Corps when it comes to the funding source. So that study for sure.

Question: How would a study that we do differ from a study that the Army Corps coordinates? Have we been duplicative? DJ: The short answer is no. The Army Corps' mission is solely commercial navigation. We will have some input, of course, into what they're working on, but their study is going to be concerned solely with maintaining a navigable channel for commercial navigation. They've done studies in the past at a smaller level. And when requesting where the economic impact of recreational use estimated that sum total of like, 250,000, or two years, I think it was tiny, which we know is not the case. So that's why we decided to do our own study. Because we want to get a full picture to MIT. The Army Corps needs to do their study to make sure that their mission is intact, but we wanted to do a study that we could then take to other places outside of the Army Corps and use for informational purposes.

Comment: For a study, was involved in one of their more recent studies, now, almost 20 years old. But one of the things that's very interesting is that while they're very interested in commercial navigation, and that is their mission, they don't actually look at what commodities move, or how or what their value. Their only real metric is, is it cheaper for that product, whatever it is, to move by boat, rather, by barge rather than any other mode? And we want to make sure that we have the ability to sort of say, well, if we didn't have the river, and these businesses continue to thrive, we'd be looking at a whole lot more boats, a lot more real activity. If we could get to the railroads, and otherwise, it's all truck. We were able to convince them to do one kind of demonstration study that showed that places that get hit hardest in black goes down or a system goes down is the river, the bridges that cross rivers, and we have a lot of those, and they're not in the best shape. And the last thing they need is a couple 100 more trucks every year, 1000 every year. So that's why we're particularly invested in those elements as well.

4. Broadband Connectivity Briefing (Aadil Ginwala, Senior Advisor at the University of Pittsburgh)
    - Aadil was the former Chief of Staff at NTIA and the former Assistant Director for Telecommunications and Education Innovation in the Office of Science and Technology Policy at The White House

This is an exciting moment, I don't think Pennsylvania is going to get a billion dollars federal money to subsidize broadband again, for quite some time. You'd have to imagine the interest rates going down, you have to imagine a whole new world of Congress. It took a pandemic this time for this kind of thing to happen. So this is a pretty rare moment. And it's a pretty exciting moment. And I want to talk to you about it. You're all going to get this in a hard and a soft copy emailed to you.

But before we get to the details of the BEAD program, just some background. It's my belief and a sort of common belief that affordable high speed internet is pretty critical for economic growth. Economic growth is what makes sure that you have more working age people coming in than leaving. And that's the sort of

key lifeblood to the vitality of our community. It's worth highlighting that demographics is destiny. This area has had that history. Remember what it was to see the core industries hollow out places that empty and some counties in this room are still facing some of those challenges, and sort of worrying about an aging populace. So making sure you have working age people in your counties is a huge deal. And there's like a positive story for that, because it used to mean that you have to have the agency located in your county. And it's still true, that's important. But increasingly because we're a connected society. Like people can come back home and still keep their job from far away. We can do remote work. And that's a huge boost, not just for us, but for everybody. So now you've got a national competition from communities all over the place for those workers, plus for the industries and the things of tomorrow that will really grow economies.

Rural counties with affordable high speed internet lost fewer people. And that was pre pandemic and post pandemic. And there's some suggestions like just having high speed increases home value by several points, and places that have really high speed that the people identify as a critical amenity that they care about. Because places with a high speed, it's a noticeable and documented trend in addition to whatever we all think. It's critical for our people for their schooling, and for keeping up.

I love this Wayne Gretzky, quote, "Skate to where the puck is going, not to where it has been." So part of the problem is you are here, and you have done this a lot, because we plan for future growth and roads for future issues and bridges. It's just a great example of hey, the locks go down, that has another effect that you have to see around the curve. It's important to know that what we're talking about for broadband build out is not going to be operational next year. I wish it were, but it's not going to be under the best circumstances. Maybe three, four years out, and then they will for 15 or 20 years. So you have to think about not trying to catch up to where people are today. We'll make sure we're skipping ahead right where the pucks going to be because the worst thing that happens, and it happens over and over again, is communities take a whole bunch of money. They build up to what they think is going to be good enough. And by the time they get there, it's already obsolete and feels like a massive waste of energy. And I'm definitely afraid that that will happen for many communities. This program that I care a lot about, because we put them in, and that we're not going to get that kind of money again for a while. So thinking to where the puck is going to be, not where it's been.

I've been talking a lot about how a gigabit is a big deal. Just to be really clear. That's the electrical equipment for the stuff. The optical equipment for fiber networks can already support 10 gigabits per second at the exact same price as a gigabit. It's the exact same cost your provider charges once they put in the equipment. It operates to give your community residents 10 games with five gigs or two gigs versus one game, and is in places where they really care about the people a lot and where they have competition. They have it today in Oakland, California. As of this summer, so six months ago, you could get 10 gigabits per second for $50, and they give you the first one free, because that's how keen they were. Dublin, Ohio also did this this summer. So did upstate New York, not in New York City, but upstate New York, they got 8 gigs. Northeast Mississippi, because they got a rural curve out there, got 10 gigs as did rural UK and Vietnam. Washington, Idaho, Oregon, and Montana also got 10 gigs. So none of you here. By the way, let me just say, I have yet to meet a human being who knows what to do with 10 gigabit per second, nobody. But the most technical person I found, with like all VR headsets in the world, doesn't know what they're going to do with 10 gigabits. But I'm relatively confident that it's going to become a standard, if it's not already the standard by the time you get there in 2030.

When you're trying to talk in your community, you're talking to all these ISPs, you're trying to figure out who's going get this windfall of money. Because by the way, the other thing that's new about BEAD is, someone in your community is going to get federal.100% guaranteed. It's not a competition amongst the different counties who creates the nicest deals. Every single one of your counties has unserved people. They are going to get money to serve them in some way or shape. So the question is, who's going to get that windfall? And what are you going to demand? We're going to try and make this the best for your community. Because a lot of communities will not do well, they won't do well, nationally. And those that do, will have a disproportionate advantage.

The BEAD program is a billion dollars that the state of Pennsylvania received. It's likely a complicated process. Effectively, the state voted on November 30, to sending us rules to follow. Now the federal

government will kick around, maybe tweak it a little bit, send it back, and then the whole process will start. The number one thing to remember about what's different from most other grant programs you see is that the states are obliged to get every single location that has been marked unserved, and as many underserved as they can get up to at least 100 megabits per second through this money, or they don't get any, and they will put it off. So everyone in your communities has some of these locations marked, and those locations are going to get a subsidy. It's not a competition amongst counties, everyone's going to get it,

All of its done, so that the whole package together has one stop scoring criteria. This is new for most of you. 75% of the score, the federal government required to be in three buckets, least amount of subsidy per house, whoever's most cost effective, affordability to the consumer, and fair labor standards. Then there's some other things you can do after way the Pennsylvania has chosen to do this. The PBDA is a little bit challenging how they're figuring that out. But fundamentally, if there's two people who want to serve 100 houses, one person wants $50 million for this, $5 million for those 100 houses and another person wants $2 million. The $2 million should get 10% is for the latest technology used. This is a very good thing. This is something you want to make sure that community people who bid for your communities, absolutely max out on.

So let me back up. The way the money works, fiber projects get priority, as long as it isn't like absurdly expensive as a fiber project is going to win. If it's fairly expensive, they're going to run out of money. Some small subsidy things, a few cabins off in a corner somewhere might get to go to a non-fiber fixed wireless or two You know, satellite or something. So the idea is to get as much fiber out as far as possible. And then at some point, you're out of money. So you come in the last bit, it's something that's upfront, cheaper, long term more expensive. So this is where the fiber rolls. Microchips keep getting smaller. The semiconductor industry is magic in a box somehow? All this equipment gets cheaper and faster. That's why you have to keep ahead of the puck, because it gets cheaper and cheaper and cheaper, offer faster and faster speeds, It's like the memory on your phone or on your camera? Like all of a sudden, these chips are bigger than us. They have these big hard drives that are obsolete, same kind of thing. So making sure that whoever it is that bids for your area is putting in the fastest electronics now. A capital investment is really important. Because, by definition, the places we're talking about are not exactly the top on people's lists for upgrades. And so if they don't get the fastest equipment now, the chances that they're going to get refreshed faster. And so even if they're not going to sell anybody attending service in your neighborhood, you know, on day one, the fact what the equipment's capable of, it's a big deal. That's 10% of score, 10% is network resiliency Are you burying fiber in places where it's high hazard? Is it going to melt from a wildfire? Is it going to get knocked down by a hurricane, etc.? This is a big deal, it's 25% of score.

Pennsylvania is putting more into affordability than a lot of places. And by my book, that's the ballgame. The ballgame is how fast for how inexpensive. That's the thing you have to push on. Because this is not a properly regulated utility, or a really, truly open market. We have an open competitive market like car insurance, you don't need to put any kind of guardrails on affordability because everyone's fighting for the next customer. They're all offering lowest price. Flipside, if it's electricity, well, you've regulated utility for a reason. Because otherwise all of a sudden, they're sending $1,000 a month on our electricity bill. And that's what we'd have to do. Most of us are in places where there's one or two players that are in private company. They can charge whatever they feel like and we just sort of have to take it. And so that becomes a problem when you're talking about your competitiveness of your counties.

So affordability is the ball game. In this case, they kind of split it into half the score for what a gigabit speed is half for 100 megabits. If you are going to talk to ISPs, this is where you want to put a lot of energy. What's your affordability not just for people who can't afford it? Right? I'm not talking about people who need the ACP, people who need subsidy, I mean, for everyone, because it's going to matter the standard price for everybody. And that's what Fair Labor Standards is about. Are you willing to pay prevailing wage in this case, a very high prevailing wage union friendly? You add that to workforce development, which should be interesting for the county. There's a big push on local people getting trained up, it's kind of union heavy, but union heavy or not, this is not fitting for counties to really get your local community colleges involved. And think about training people to be, digital navigators, everything in between. And so that's something that I think is county that's 25% 5%, for open access. This puts us in more than top five or 10 states in the country.

Open access, big deal of five points, it's not like a lot of points. But a lot of those things above, there are going to be everyone gets them in the bid. And so that five points is going to make a big difference.

Can we create a competitive market in an industry where there's a lot of capital expense? The way you do that, is you create shared capital costs, and then you let people compete at the layer right above it. It's like saying shared rows, delivery services are competitive. Every delivery truck company had to build the road first and they charge whatever they charge for delivery. I would have liked more local consultation. I would like you all to have a bigger say on what's going to happen in your communities. In this context, people have to show up, talk to every town, have a meeting of minutes, they don't have to take your advice and your opinion on which one wins and which one doesn't, it isn't a part of the score. But the consultation is an opportunity for you all to get involved with that and sort of move things a little bit perhaps. And so that's an important thing. It's four points. So that's the scoring.

Speed of Deployment Timeline – every state has to give an initial proposal, and then a final proposal a year apart. The final proposal is actually the selection grant process that every single vendor chosen will know where every penny is going. It's the final funding initial proposal and these are the rules, We're going to run things by the NTIA broken up into a volume one and two. Volume 1 is for challenges and Volume 2 is for the rules. States submitted both of those to NTIA. There's a couple of things that can happen. They could just approve Volume One. It's possible to do that in January. What's the importance of that? Well, when Volume 1 gets approved, the state can start running a challenge process. The state has to finalize over 90 days. If your county is on top of its game, and it identifies those challenges and pushes back when an ISP says, I swear, I got them covered, but they don't, then you have more locations, you'll get more money. If you are not one of the counties on top of your game, and you have people who don't have internet, but are on the imperfectly generated list, they're not going to be serviceable with this money. That's just what it comes down to. So that's a 90-day clock. So if that gets approved in January, you've got January, February, March to get that. Another possibility is that both Volume 1 and Volume 2 get cleared at roughly the same time why that means April, people start taking applications, or maybe going to get approved later. But basically, 90 days from whatever volume point gets sorted is when they'll finish their challenge process. And they'll start taking applications. So that's sort of irrelevant. So maybe as early as April, possibly as late as June, probably not much later than June, in that ballpark, sometime in the spring, or early summer.

There are two sorts of things to think about – number one, how involved does my county or my communities want to be in the challenge process? Who in my communities will be good a sort of people for figuring that out? How do we get our libraries activated, our IU activated, others who have good visibility and ground truth? And they can collect that information? Because unfortunately, individuals can't submit for a challenge. It has to be the government, the county and nonprofit. But how much effort do we want to put into that process? Question number two, how can our communities get the best bang for buck for what should be a pretty rare opportunity? For 10s of millions? So those are two of them. There's a lot of self-details for quite a few. As I've said, if you take away nothing else, how do you get the fastest speeds to keep up with everybody else? For the lowest prices? How can you get that trade off? And do it for everybody? Because that will also help you close your digital divide that will help you with your economic growth.

I ran some numbers with actual broadband experts CostQuest Associates, who helped advise the NTIA on how we were setting up our rules. They're the people who got the FCC contract to do the map. I asked them, what does it cost if you build it with no existing infrastructure, if you just build out a whole fiber network in these various counties? Don't leverage anything, don't even think what it cost to build that whole thing out. Now, maybe this is a little bit inflation under adjusted, but I took that number plus the rough number of how many unserved/underserved are on the map today. You're going to hear these people say, hey, it's really expensive to serve these neighborhoods. Like you can't get there. I have to charge this price. I have to charge 100 bucks. I'm never going to make my money back. Let's just give an example. It's a $100 million network and the applicant put in a 50/50 match. So they get $50 million from the federal government to recoup that capital, plus run the operating costs, which is a healthy $10 to $15 per location per month. You're still in a ballpark of operating costs in the $20 to $40 range. That's to say, every one of these rural communities is out in the sticks. An Armstrong County house cost them after all build out with Capex recovery, we're making our money back for what I put into it, say $40 a month. Everything north of that $40 is the gross profit. I'm not covering an operating cost, like their marketing and what the CEO makes. But all

the operating costs of fixing the line, like saving some money for capital improvement and capital upgrades, etc. It's a rough estimate. These numbers might be off by $3, but it's not $60 a house. So you have to think about that. When they come to you and you talk to them, they say, Well, what are your prices? When you say I need a $50 gig because they got 10 gigs for $50 in Oakland, California, they say it can't be done. Economically impossible. Well, happy to provide some backup and say, Well, explain to me why it can't be done? What's the size your network, your Capex recovery? How much are you going to get them? How does that translate? What's your payback rate? Maybe it can't be done because the investor needs to make 20% on his ROI from the private capital. And so I think this is important. These numbers, shockingly, hold up across a lot of the state. For Susquehanna Valley, Southern Alleghenies and others, these numbers don't move that much. As it turns out, this is rising, but it's true.

What are you going to do about this? This is one man's opinion. There are three things that county commissioners and counties could do about this situation. Option one, do nothing. Status Quo. People are going to get this money. They're going to apply for it. They're going to reach out to you and give out letters of support. Whatever you want to write. You don't have to. You don't have to do a lot, And if you don't have a whole lot of unconnected, or you don't think this is a problem, that's probably the best solution. What do you have to believe to do nothing? Or you have to believe that something about the way things are working is going to work just fine. That the market competition in your county is pretty good, and actually is going to be fine. And you're going to get that you're already getting people talking to you about 10 Gig speeds for your areas, because that's the cutting edge market thing. You're already seeing prices go down for speeds. People are pretty happy with the speed pricing. It either doesn't matter that much for the growth or it's going fine. That's the Do Nothing else.

Another option, which is more sort of traditional, you got to negotiate with the ISPs that are willing to bid in your area. You have to try to get those ISPs to offer a better deal and you don't have as much leverage as what you did. So they really needed to come to you table. They don't have to. They have to tell you what they're going to do. They have to listen. They don't have to do anything. But you guys are creative county executives. You've worked with companies before whole attachments and utility companies are a part of this mix. Reading and permitting is a marked part of this mix. You've got a few tools in your toolbox. So you can try and negotiate. You have to believe though, that you're going to be successful in that negotiation. That you're really going to get them to offer really good prices. But those prices are going to stay low over the 20 or 30 years that matters for this. That they're not going to sell themselves to another player, and then sort of lose those covenants or get them out the door. And then you're going to get the kind of pricing that you need. And if you can, you know that that's a pretty good solution for a lot of people. And that's where a lot of people go generally.

If you don't feel that that's going to work that your history has shown that you don't feel like you're getting well served by the ISPs in your area, etc. What are you going to do about that? There's not a lot left. The third possibility is something that some places in Pennsylvania are thinking about right now that also the country have done that most all of your reports on. And that's the idea of an open access network, which as you recall, gets five points in the scoring criteria. And so an open access network is fundamental in the idea that one entity builds it owns the infrastructure. And then they charge a lease rate rent, to other entities who provide retail service, and the advantages, those entities can be multiple then, and they don't carry all the capital costs, they're just sort of operating costs depending on how much they serve. So they don't take the risk. If they don't serve anybody in that area, they don't pay anything. And there's a lot of people that pay more so sort of a leasing model. You have the opportunity to think, we as a county are in a pretty good place here to take a really substantial federal subsidy, taxpayer money for and build a taxpayer asset. We'll do this in partnership, you're not doing it by yourself. I'm not suggesting that any of you would want to become internet service providers. But there's an option here, which says, hey, we're going to be building infrastructure. There are people who can help you with this. But we'll apply for the money in a partnership. We will build this and own this infrastructure and it will allow lots of people including the partners to serve retails. And in that context, you now have leverage because you set the terms for using this at the asset. And if somebody ends up serving people poorly, you can bring somebody else in so you can create a model and merge.

There's definitely at least one region that's going to apply for this this way, five, six counties. There are others talking about it. In Utah, this works really well. And utopia is in Washington State districts and there's a few other places in the country where this is growing. There are some private open access networks now some are popping up. So sci-fi networks as urban areas, BlackRock and ATT has to be called GigaPower, they can try and do lots of high value suburbs in Texas with this concept, I don't think any of those people are showing up for the counties of southwestern Pennsylvania. But there are options here. And as places in Pennsylvania do it, the sort of difficult parts as who's going to manage the build out? Who's going to manage the operations of this? How can get the retail? Those things can sort of be replicated in partner. So if a county at Southwest Pennsylvania wants to do it, Northwest Pennsylvania wants to do it. and a group of counties in eastern Pennsylvania want to do it, you can all leverage similar players, have similar terms for your networks. And then by doing that, sort of have economies of scale and simplicity, and for applications.

Questions: Mark Gordon, Butler County – we have a good bit of just concerned that some of that's not moving. And your understanding is the authority that's been pushing back on that with some of the challenges. If we were going and challenge and put some of those folks on the clock and putting up I am trying to deal with more intel on that. I think there's some sympathy look, Development Authority is caught a little because the other side of that PCAP and they're already really upset on this.

Aadil – I do think that it's absolutely worth your effort to light a fire under the Twitter. So I think everyone here on was the FCC is prior version of billions of dollars to close broadband. Candidly, I'm skeptical, it's going to be that great. The history of things like that there's something about cat one and cat two before it is that people take that money, I think as long as possible to build it out. And they do the minimum that you know, spec standards and you ended up not the people who get were paying by, don't end up so happy probably at the end. Now maybe not true. Some places, it's a good provider that care of either getting ahead, but to your point, I think it's a great opportunity to challenge process for B to say, Yes, I know that you're ready to start off with you. Are they in a truly engaged commitment? You know, what are they going to do about things? How quickly are they going to throw it out? And if not, can I put that thing back at the top of the feed, it's a great opportunity to raise. Be the squeaky wheel. Another thing worth mentioning, you can't cover with a beat. Like there's not going to let you do that with that money. But between us in, it's nothing that you can build out a giant network. So say, the leftover are off as a big circle, an oval, right? It's not the bill that where you don't run by, you just can't connect their house on your network. If you think there's going to be a whole bunch of people that might not get closed, that aren't up, people might not end up they might hand the money back with a few percent interest or whatever. You can build a network that could theoretically in the future, connect out to the people with non-federally subsidized money that or it's all very like low, slightly grade. But you could literally run that fiber right down the middle of the residential street. You just can't run the connection to the house right now. You don't do that because it has no relevance to whatever else. But if there's two houses on the end of this block, and all the 15 houses in between or if you connect Class A and Class B pass them you don't do for it couldn't possibly be useful later. And then Step two. When those are enough houses don't get connected or god forbid they connect with a lousy speed or bad service and can offer them to connect later with county money or On some theory overloads also called competition. I'm not so sure that we've embraced language that suggests that everyone's supposed to have a monopoly for every service with no regulation. I'm not sure where that became like good market economics. But apparently, it's the word of the day. So I think there's some things you can do, that's the other challenge. They'd say no, they don't really are enough. I see counties here today where those options do nothing. You're working with an ISP? Or that open ACC network? Anybody wants to speak? I mean, what was the status of your county? I know, we're kind of in the middle of option two, working with our logistics providers to leverage their capital with some of this BEAD funding, was kind of curious where everybody else is, like, let's do the same work from the current fire. doesn't mean he's not interested in offering other providers just we started there, especially with the capital.

Comments: Greene County is doing really well. And rural implementation, including will be done by 2025. With availability for 100%. But if our flags were a number, you know, the second option to last thing I want to do, is it on something that's in the same boat. We're working with an IP locally, about we also have other ones that are coming in on their own, and investing some money too. And we've done a lot of challenges, because we've had some say that they're covering areas that they're not.

Aadil – How are you doing the challenge? Because I've worked in a lot of counties that want to do challenge work, but they find it more challenging. It's difficult for them to figure out how to get that data. How do you guys approach it? Reply – we got the company that we're working with, they're giving us to that. And then it was kind of amusing because they said we had to prove that it wasn't on the pole. And it wasn't in the houses. So all we do is take pictures of why no wires going to a house, it's not that difficult to see that there's not vibrant and full. So that's how we challenged

Indiana county commissioners have awarded $6.9 million of contracts to two ISPs. So we're probably in that second boat but our contracts, we've got an ARC power CBG CV Keystone communities Grant County put in some funds for matching dollars. And in our contract though we left some language in there. They do have some leasing capabilities. We encourage that. And both of the ISPs that we contracted with are very open to partnerships, trying to try to help one another out so it's kind of a quasi between buyer and with all those resources like Greene County with that get you guys to 100%. Some of his numbers indicated we started off the old FCC maps and appreciate SPC going steady and really validated what we've been talking about three SPC study, and we did some our own surveys. We did a survey called we need broadband so went to all the school districts put push that information out we had 1000s of responses. And we overlaid some of what SPC came up with, and Mike Baker and what we came up with, and really got mirrored images in way that we thought we would. We're picking up chunks and 1000s of homes and businesses, but we were starting off from real disadvantage. So our core urban areas you get a couple of miles out of Indiana, to the point on the pricing, comes a density issue. I mean, you're running miles of fiber and picking up a handful of homes. That's some of the cost driver, because you have some of that fixed costs on some of that same equipment and you just don't have enough customers to absorb some of those fixed costs. Whereas in an urban area, you might have more screens back and forth, and more connections. But you also have more paying customers to try to absorb that cost. So it gets upside down real quick when you have more cows and gas wells, and you compete.

Aadil - I totally hear you on that. And it's just the basic sort of mentality and equals. And that makes all the common sense. Couple things that are interesting here (referring to a map), one, that's all rural right there on that page, there's not an urban spot in that. That's an expert number. That's not a made up number. I think the other thing is important. And this is important, whether you all play this sort of like county owned asset or not is part of the dynamics of how those areas which are least dense, become problematic, is because as a company, you have to take on the fixed capital risk. And so one thing to note is, there's a lot of capital coming from the Federal taxpayer in this moment. There's an important question, who gets the ROI? So when a private investor puts money into your network, it's only right that that private investor needs return on their capital, right? If it wasn't only right, it's the only way to get that capital. So there you go. If it's a community or county puts out a bond for that, you have to pay back to your bondholders those people gave him he got to give the interest rate back, which is, by the way, probably lower than the ROI of the private investor. But how many risk county money? You got a third category, you've got federal taxpayers, all of us shelling out for that for a whole chunk of it. So what's the ROI of the county or who gets the ROI from that massive discount? Now, if you're a private company, your job is to help your And what are they going to say? Well, this is nice windfall. And the theory has always been and the SEC has workouts, that everyone would want to share these communities, but for that upfront capital, outreach cost. Or buy a little bit more spectrum, if you're a TNT, and you're fighting in the wireless wars, right? Where there is a competitive market, versus upgrading the capital equipment for whichever win streams investment in, right? And God bless, they're working with you so well, and you're going to get a kick speed, but they're always going to tell you can't and the cost is going to go up. Also, where's the incentive to drop the price? Why? Why would any private company drop the price if they didn't have a competitive reason to do so? So if you're going to do the negotiator, the ISP thing you're going to have to play really hard hardball right now. I know the difference between capital projects and all the things was that you could get the money or you could just not get it. This one is guaranteed. So you got to play a little different because you have to definitely respond to your county, you're not going to go like this, like you're not going to go on cover. So I think that's the really big question. If you're going to negotiate with ISPs, how do you get that price? And we're pulling the speed up? Candidly, there are plenty of people in your communities, you can spend $70 on broadband, but what are they spending $70 on is the issue, right? They're getting lower speeds, and you're just not

going to be relevant when it's time to build the next data center, or build the next thing that brings the sort of high paying engineers who are used to this.

Question – I'm curious if you did any analysis on the supply chain costs, on some of these things, given all the federal money, the inflationary isn't enough.

Aadil – So that's a new modeling. I truly set up a few bucks off but yeah, I felt stagnant on those numbers. But let's say we're Indiana County. It's a $60 million building. Just assume that that number is off by 10%. The real number here is three quarters of that are coming out, one third maybe. Again, how much do you want to spend? You don't have to guarantee it will be two thirds are coming out of federal funds. Look at Allegheny County Complex, it's not going to get a lot of stuff. Because what is it, like 2000 locations, If Allegheny County wants to do something innovative, up to speed to be competitive, it's going to have to bear the brunt of the majority of that tilt, right? This is like, how wireless is.

So the other thing that we did negotiating with an ISP is we've worked with our world electric utility, or EA. And they've purchased an ISP called Instex, which was a wireless based company. And now that we made the decision a long time ago, commissioners give them the fiber to the home. And so now we're dealing in our nonprofit men, so it was kind of like the best of both worlds. The county didn't have to own it. But we have a nonprofit with a non-profit motive, trying to keep their electric customers there as much as to the point of being able to remote work and all the quality of life things that you can offer in a rural setting, but still have the accessibility, you know, roll out what you want. So that was a nice hybrid approach that the commissioners talk on one of our ISP awards.

I'm a huge fan of Rural Electric Co-Ops, and actually utilities generally, I think I forgot to mention that. So partnering with utility is one of the ways you get some leverage on this thing. Because as it turns out, the biggest chunk of the cost of that is poles and poles attach. It's just galling, how much of the cost of the stuff goes into paperwork, really, and negotiation, but it's what it is. There's an interesting CPF application I heard about up in Crawford County, where because of the utility might have been a private utility was even on the application, they contributed income.. So basically, the width of it, that's the thing you all can work with your utilities on. By the way, the rural extra co-op might be the one to run the Open Access Network. And having a nonprofit do this in your county is a good way to do it. One of the things I was talking about instead of counties, it's an economic development nonprofit. The board has all the county commissioners, the funds will be coming from County from some development authority that's going to be able to bond right for the matching, but like it's a nonprofit that's taking on the risk. It's not directly the county. So if that's interesting, that's an opportunity. So for you all on the way, it'd be great to talk to the electric qualified. We want to create an open access network here, you get the extra five points, you get all you get. You can do this cheaper than others. And the open access network can be in my best estimation, the way to do this is saying, here's the actual cost of operations. The good news about by the way, but these houses is, it's not really competitive, right? Your tape rates could be really high. So when you build out these broadband networks, a big worry is like, will anyone use it? So I said, let's build out an open access network in Pittsburgh, where you have Verizon, you have Comcast, and whatever, Xfinity, there's going to be competition. Those guys aren't going to lay down and keep up their business, right? So you have to factor in to take credit 20% 25%. It's not going to get you the whole market. These numbers going to be 85 plus percent, because the good news has served us right. And so you can think about working with those folks and saying, hey, let's build an open access application. And let's say it's going to cost you $45, so the only condition for being on our network is $55 gig and give a gig to anybody who qualifies rates up above that two gigs, four gigs, five gig 10 gig to try to learn more for now, and then 10 years from now or five years. I'm very sure their marketing savvy, they'll get people buying for gigs. Sorry, I think we're going to run the meeting.

Pat Fabian – I appreciate this conversation. Your presentation. I want to recommend we keep this on for February's meeting similar to saving the Allegheny conversation as well for updates future updates, because I think it's something that impacts every single one of our counties one way or another. So if you wouldn't mind we'd appreciate you coming back in February.

    5.   Next Meeting Date

- ***Reminder—February 26, 2024***

6.   Adjourn

The meeting adjourned at 2:59 p.m.