FRIESEN: OK. Welcome, everyone, to the Transportation and Telecommunications Committee, and there-- Appropriations members were invited to stay, but most of them had other appointments, so, Senator Clements, you can just hang around. I don't think we need to go through introductions again. Everyone, I just ask you silence your cell phones. And we'll invite Mr. Sankey to come forward from the Public Service Commission, and this is basically a briefing from the Public Service Commission on our 911 Service System. We're going to have invited testimony only, but it is open to the public. So with that, thank you for coming and talking to us today.

DAVID SANKEY: Thank you, Senator. Well, Senator Friesen and members of the Transportation and Telecommunications Committee, and, Senator Clements, as Appropriations Committee, good morning. My name is David Sankey, D-a-v-i-d S-a-n-k-e-y, and I serve as the state 911 director with the Public Service Commission. We appreciate the opportunity this morning to update you on the progress we've made with the deployment of next-generation 911 in our state. We have passed out the presentation to -- to all of you. And so if you'd just like to follow along with-- with the presentation, we can work our way through it. So just a little refresher, you know, when we talk about next-generation 911, we know a lot of people are like, well, what is next-generation 911? What we're talking about is transitioning the state's legacy telephone network, copper wires, the ability to just make voice phone calls, to a high-speed Internet protocol network that gives citizens the ability to send text messages, make a voice phone call, send pictures, send videos to 911 when they need to. So it allows for the flow of digital information across-- across the state. There's two primary distinctions between-- of the current system and what the next-generation 911 system would be, and that is the development of an ESI-net, or emergency services Internet protocol network-- this is the high-speed network, IP network that I-- that I talked about just a minute ago-- and the use of geographic information system, or GIS data, so that we can locate and route callers geospatially. Just a little history here, in 2016, Senator Smith introduced LB938, which created the 911 Service System Act that authorized the Public Service Commission as the statewide agency to plan, implement, coordinate, manage, maintain, and provide funding assistance for a statewide system. It also instructed the Public Service Commission to develop an implementation plan, hold several hearings on that plan, and submit that to the Legislature in December of 2017. The-- after that briefing, LB993 was introduced by Senator Friesen and prioritized by

Senator Geist, and we thank you both very much for those efforts. That created the 911 Service System Advisory Committee. It merged the Enhanced Wireless 911 Fund with the 911 Service System Fund and, most importantly, authorized the Public Service Commission to begin implementation July 1, 2018. So what are the PSC's responsibilities as we move forward with next-generation 911? Well, as I mentioned, to serve as the statewide coordinating authority, to provide service to all the residents at the state at a consistent level and a cost-effective manner, to establish uniform technical standards, establish uniform training standards, and coordinate the development of policy and procedures. So historically, the state's PSAPs, which there are 68 of them now, public safety answering points, have operated independently. They've purchased all the equipment themselves every time they need to refresh that and the -- and the operation and control will remain in-- with the local PSAPs, but what we're providing is a statewide interconnected system to connect all those PSAPs so that we have redundancy, we share resources, and we have some resiliency built into the system, so that we make sure that 911 calls don't go unanswered. So in the plan that we've presented to you two years ago, it was divided into eight different areas. It was the system design, governance, how we would manage that system, GIS, as I mentioned a few minutes ago, continuity of operations and disaster recovery, PSAP policies and procedures, training and-- and education, the first-responder network authority and how we would interact with that, and then funding, how we would move forward with the funding. So what we've been doing over the last several years is we've been working with the public safety answering points to form host remote regions to regionalize, and what that means is in each region there would be two PSAPs that would serve as the host PSAPs. They would have all of the expensive equipment in their facilities and the remainder of the remote PSAPs in the area would connect through a regional IP network and share that same equipment, share those same resources. So we've been doing that. There is a difference between regionalization and consolidation, and this is an important point. The regionalization allows for the PSAPs on their own to decide if they want to remain in operation and do that and share those resources, or versus consolidation, and consolidation means that they would actually close their doors and merge with another PSAP and -- and cease operations. But those decisions are allowed to be made at the local level. We have seen some. Last time I spoke to you a couple of years ago, there were about 72 PSAPs in our state; now there's-- now there's 68, and there's more talking about consolidating as well. The next page is a map of

the regionalization that's taken place across the state. We have a region there in-- in the green, in the southeast corner of the state, that -- that has developed. We have a large region in the south-central area that is there in purple that has formed. The red region is what we call the north-central region, the yellow region is the east-central region, and the blue is the -- the Omaha-metro region. We-- the folks in the northeast part of the state are continuing discussions and they're working on forming at least one region, maybe two regions in that part of the state. So what we would do then is when we develop the-- the state's ESInet, we would connect the hosts for each one of those regions to the ESInet. So the next page is governance. So as I mentioned, LB993 created the 911 Service System Advisory Committee. These are folks that are made up of a variety of different areas involved with public safety. They are providing recommendations to the committee or to a commission on how we should move forward on various issues. That committee has formed several working groups. We have a technical working group that's working on the RFP requirements for the technical aspects of the system. We have a GIS working group, a training ed working group, an operations working group, and a funding working group. The next page shows the -the organization chart. As you can see, there are 14 members made up of local and county officials. We have a NACO representative, a League of Municipality representative. We have two representatives from the telecommunications industry. We have public safety answering point representatives. And then we have what we call operations representatives, which are law enforcement, fire, EMS, emergency management. In addition to that, we have two ex officio members, which are-- which is the state CIO or his designee-- he has designated the state SWIC and NEMA to be his designee on that board-- and then myself. So as I mentioned, they're an advisory committee and their job is to look at different aspects of the committee-- of the system, make recommendations to the commission on how they should -- how they should move forward on-- on different aspects. And then once the commission makes a decision about which direction we would go, then the 911 department would need to carry that out. So the technical working group, the technical working group for the last several months has been working diligently on creating an RFP for a statewide ESInet and for the core services. The core services are basically all of the information that's needed to locate, route the -- route the 911 call to the appropriate call-- to the appropriate 911 center, and-- and get the appropriate response to the citizens in need. We've been working with state purchasing on that. We're very close to issuing that RFP. I

can't-- obviously can't talk a lot about the RFP since it hasn't been issued yet, but we're very close to releasing that RFP and -- and we're looking forward to identifying a vendor to provide us the -- the statewide ESInet and core services. I know last time when we were here, we talked about cybersecurity concerns related to the ESInet. Those cybersecurity concerns are -- are very well laid out in the RFP, and those are-- those are very important requirements that we will put on the vendor to make sure that they provide those services. We're also looking at developing an RFP for regional IP connectivity. The locals have asked us to do that. As I mentioned, what we're talking about doing is connecting the host PSAPs to the statewide ESInet. The locals continue to pay for their regional connectivity, but they're asking us to develop an RFP so that perhaps we can get better service at a better price for those types of things. So the next page is a depiction of if you could see the ESInet, what it might look like with-- connected to the host that we currently have in place overlaid on that -- on that map that we showed you earlier. So the GIS working group, across the country, there are-- there are several states, more than several states that have an ESInet in place. The one issue that is taking the longest in developing next-generation 911is the GIS portion because it's just such a heavy lift to get the GIS data to the point where there are absolutely no errors in the data, there's no gaps, there's no slivers, and people-- and you can locate and route callers using the GIS data. So our GIS work-- our working group is working with local companies that help counties develop their GIS data. And some counties create their own GIS data and maintain it, and we're working on doing that and building a statewide map that we host in our statewide repository. Once we get that complete, then we'll be able to get to the point where we can do geospatial call routing, but that's going to take a lot of effort because we have to develop these boundaries that we have listed here. The street center lines are-- are somewhat developed. The PSAP boundaries is a critical part. And that's what we're working on developing right now with the local agencies. Emergency services' boundaries, you know, where's the fire district, where is the police district, those kind of things, we're developing those, and then address point layers that take quite a bit of work as well. We have contracted with a company to help us provide quality assurance and quality control. So when that data is submitted to us, we run it through their -- their tool and we make sure that the data is as accurate as possible, because our goal is that the data be 100 percent correct. We have a training working group. I think last time when I was here, I mentioned to you that Nebraska has no training

standards when it comes to 911 operations and we have no state certification program. So the training working group is-- is working on developing those standards, developing that certification program, working with local entities to -- to develop that. We have an operations working group, and what the operations working group will work with is developing model policies and procedures that PSAPs can adopt, develop COOP plans, or continuum of-- continuum-of-operation plans, disaster recovery planning, how will we integrate with FirstNet as Firstnet is being developed across the state, and continue system monitoring and continue to advise the committee and the commission on different aspects of the system and how it-- how we should be monitoring that. Lastly, we have the funding working group and the-the commission has had a funding mechanism in place for many years on how they pay for different services and how they allocate dollars to the public safety answering points. In the next-generation 911 environment, that will-- that will require a new funding mechanism. So the working group is working to develop that new funding mechanism. Our goal is to have that in place before we enter into a contract with an ESInet or-- or a core services vendor. As you can see there, the plan called for the wireless funds to pay for the ESInet cost, the core services cost, the text-to-911 cost that we have already committed to, the call-handling equipment cost, and the GIS data creation and maintenance. Just a review from-- from last time, but we know general-- General Fund dollars are not a consideration for this project. There are different surcharge dollars that are out there. We have postpaid wireless dollars and we have prepaid wireless dollars. Those are the dollars that are collected and submitted to the Public Service Commission for-- for the use for the 911 system. There are also 911 wireline dollars and 911 VoIP, Voice over Internet Protocol, dollars that are collected. Those are collected and remitted directly to the locals. And then there are federal grant dollars that were available, and I'm going to talk a little bit more about that here in a second. So back in 2012, when-- when the federal government allocated \$7 billion for FirstNet, they set aside \$115 million for next-generation 911. That wasn't released until this August and-- and they made it -- they made it available to states and tribal organizations. So we in Nebraska put together a plan. Working with our 911 Service System Advisory Committee, we put together a plan on how we would use those dollars. We applied for the dollars that were available to us, plus we were able to get some supplemental dollars that were available as well. So Nebraska-- in Nebraska, we received \$1.99 million in federal grants to help us with the deployment of

next-generation 911. This is -- this is a matching grant, so 40 percent of the match has to come from the 911 dollars here we have in the state. And it is a reimbursable grant, which means we have to spend the money first and then -- and then seek reimbursement on it. The grant period is active from August 9, 2019, and it'll expire March 31, 2022. So we need to get those dollars spent in that timeframe. What we're going to spend the money on for the federal grant is the implementation consultant that we've contracted with. We have contracted with Mission Critical Partners. They're a national recognized consulting company. They helped us put together the implementation plan. We have contracted with a company called ECaTS, Emergency Call Tracking System, so that we can collect statewide data. It allows the PSAPs to collect better data about the calls that they're receiving, what types of calls they're receiving, when's their busiest hour of the day, when's their busiest hour of the month, so it can help them plan accordingly. It'll also help us get a better picture of what do 911 calls look like across the state, are they being routed to the appropriate PSAP, those types of things. And then the remainder of the money will be used for the ESInet and for the core services. So some of the costs that are associated with this that came out of the plan were the network cost. Just to operate and maintain the network cost would be about \$78,000 a year. The cost to connect the hose to the ESInet, you can see there listed at \$582,000. That may come down. We expect through the RFP process that would come down. And we did that with the idea that we would have ten regions, and I believe we're not going to have ten regions. We'll probably end up with like something like seven or eight when we're all said and done. The next-generation core services, the text-to-911 cost that we're already committed to, that's a very conservative number, GIS development, and then purchasing the equipment for public safety answering points and then putting them on a five-year rotational basis. So listed there is what we believe are the estimates, rough order-of-magnitude cost for the transition system. That's it. That's once it's completed. In the meantime, we're going to have to pay for the-- for the cost of next-generation 911 and the cost for the legacy system. So the quicker we can make this transition, the more cost-effective we can do that. So what are our next steps? We'll continue to work with the PSAP to regionalize. As I mentioned, we just have a few more, I think, to come together and hopefully we'll have all of the PSAPs as part of a region across the state. We hope to issue our RFP in this month or early next month and that-- that'll probably be about a six-month process, so we hope to have a vendor

identified and a contract in place the summer of 2020 and also hope that we have our funding mechanism in place by that time as well. And then we hope to connect our first region of PSAPs to the ESInet and start deploying next-generation 911 by the fall of 2020. And then after that, our plan is that about every six months or so after that, that we would connect another region. And that may speed up as-- as everybody gets better at doing this, so, at least that's our hope. The next page, I just shared with you a picture. These are-- these are pictures from Nebraska PSAPs. These are Nebraskans answering calls for Nebraska citizens and visitors. Just want to say thank you to all those folks for the hard work that they do; and how much you folks appreciate their efforts, we know that as well. So that's kind of an update on where we're at with next-generation 911. I'd be happy to try and answer any questions you might have.

FRIESEN: Thank you, Mr. Sankey.

GEIST: I have one.

FRIESEN: Senator Geist.

GEIST: Yes. Thank you, Mr. Sankey. I appreciate your information. And my question is, what is the current budget annually for the legacy system and how does that compare with what we will be looking at going forward?

DAVID SANKEY: Yeah, so-- so currently, as I mentioned, it's-- it's everybody that has a postpaid cell phone contract in our state gets charged 45 cents and that come-- that gets remitted to the commission into the wireless fund. And people that purchase a prepaid wireless phone, that-- those dollars also come to the commission. That takes in about \$8.5 million dollars a year.

GEIST: OK.

DAVID SANKEY: We currently allocate about \$4.9 million, just under \$5 million, to the PSAPs. We distribute it to them to be used for-- for cost of receiving a 911 call. We also paid last year \$2.6 million to-- to local telephone providers to provide selective routing for 911. And then we spent about another million dollars to the wireless carriers for wireless cost recovery to provide 911 service. In addition to that, we have about another million dollars that we're spending on

administrative costs, things like these contracts that we talked about.

GEIST: So with all of that added up, we could actually maintain this type of system once that goes away on current funding?

DAVID SANKEY: No. So the idea is, as-- as we transition PSAPs onto the next-generation 911 system, the legacy cost would come down--

GEIST: Right.

DAVID SANKEY: --and the next-generation 911 cost would go up. And-and so as I mentioned, the quicker we can do that, then the-- then the quicker we can not have to spend money on both systems.

GEIST: Um-hum. But I guess my point was, is that it sounds like once that transition is made, we're currently taking in enough to support this type of system on the--

DAVID SANKEY: Yes.

GEIST: But I-- I understand we have that --

DAVID SANKEY: Yes.

GEIST: -- to make that transition, which requires more funding--

DAVID SANKEY: Yes.

GEIST: --total. But eventually where we are would cover what we'll need.

DAVID SANKEY: It-- yes. But again, it will depend on how long that transition takes place.

GEIST: Right.

DAVID SANKEY: We do have a -- we do have a reserve balance available to help us make it through that time period. OK. But if the costs do come out as-- as specified in the rough order-of-magnitude costs, then with the current surcharges we're taking in, that-- that should cover it.

GEIST: OK. OK. Thank you.

FRIESEN: Thank you, Senator Geist. Senator Albrecht.

ALBRECHT: Thank you, Chairman Friesen. And thank you for being here to discuss this. I happen to be the only one besides Senator Clements that was probably not here and a part of the legislative powers to make all this happen. Can you go to the page with the map for me, please?

DAVID SANKEY: Sure.

ALBRECHT: So is the whole state of Nebraska covered now, or are you saying that the folks in the gray are not part of this?

DAVID SANKEY: So they're not part of a region yet.

ALBRECHT: And why?

DAVID SANKEY: Various reasons. Some folks have-- some folks have asked to be connected to a region and they're in process of doing that.

ALBRECHT: OK. Is your goal to have everyone --

DAVID SANKEY: Yes.

ALBRECHT: --part of--

DAVID SANKEY: Our goal is -- our goal is that every PSAP be part of a region and that we connect regions to the ESInet.

ALBRECHT: OK.

DAVID SANKEY: In other states, what-- what they've done is they've tried to connect every single PSAP to the ESInet, and that increases the cost tremendously.

ALBRECHT: OK. And so did it take very long for everybody in color here to come together? And how did you coordinate that, that they all try to work together? And how do-- how did that happen?

DAVID SANKEY: So--

ALBRECHT: How long did it take?

DAVID SANKEY: So-- so we go out and we visit with each individual PSAP on a regular basis. We talked to them about the benefits of regionalization. They evaluate where they're at with their equipment. A lot of them, you know, if they just purchased equipment not too long

ago, the-- they don't think it's cost-effective right now to purchase additional equipment or different equipment to be a part of a region, which is some of the cases here. So they're kind of waiting for that equipment to age a little bit before they make that investment.

ALBRECHT: And-- and is it the counties that have to participate, obviously, in purchase-- purchasing that equipment for their area? But if they've already purchased it or can't afford to purchase it, is that a problem?

DAVID SANKEY: So what-- some of the funds that are available from the commission, from the wireless fund, help pay for that equipment--

ALBRECHT: OK.

DAVID SANKEY: --that other-- other funds, whether it's wireline funds that we talked about earlier or it's general funds from the local budgets, helps make up the difference to pay for that equipment--

ALBRECHT: OK.

DAVID SANKEY: --currently. Under the new funding mechanism, that could potentially change and that could potentially be paid for by the 911 fund that we're talking about here.

ALBRECHT: Good. OK.

DAVID SANKEY: Not all of the PSAPs are operated by counties. Some are operated by cities and-- and so we work with all of those folks to show them the benefits of-- of joining 911-- of joining a region and-and becoming a part of that, and then talk to them about what the next-generation 911 environment might look like. So nobody has said that they're not going to become a partner in this, they're not going to join a region. Everybody is participating. They're just at different-- they're just at different points in their-- in their process.

ALBRECHT: So because I represent the northeast Nebraska area and I am very much concerned and I do want to talk to you about-- you said that the tribes also are going to be a part of that grant. How does-- how does that play into--

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft DAVID SANKEY: So the tribal organizations had the ability to apply for the grant.

ALBRECHT: Did they?

DAVID SANKEY: Ultimately a tribal organization in Nebraska initially applied and then I believe they withdrew their application. So there weren't any tribal organizations in Nebraska that received federal grant dollars, mostly because the tribal organizations in Nebraska don't have public safety answering points. So those calls that are made in the tribal organization areas are received by the local public safety answering point and then--

ALBRECHT: Which would be the county 911.

DAVID SANKEY: Yes, in most cases, yes.

ALBRECHT: OK.

DAVID SANKEY: And in your area, in the northeast part of the state, I can tell you there's been at least two meetings in the last several months to talk about forming a region. And so what they're doing right now is they're trying to identify who would be the host and who would be the remotes and what kind of investment that would be to become part of a region.

ALBRECHT: OK. Well, I'm sure we'll be visiting soon about this because I do want to be a part of it and-- and I understand the-- the complications of the 911 where I live. Oh, boy. I mean, you could have four different folks respond to your location and most of them don't know, based on where you live, who should be call-- answering that call. I'll give you a quick example. I have this lady that -- and -- and this is all to-- to do with wireless. I just want to-- I just want to share this with you. I had a neighbor gal bust through my front door one morning and said, Joni, you need to call 911, my husband's on the couch, I think he's having a heart attack. And I'm like, why are you at my house? She had just shut her home phone off. She bought the prepaid phones, which were dead, and they hadn't got to town to-- to, you know, get a new one. And I'm like, OK, so go back home, and I immediately, you know, was on the phone with 911. But based on where they live and where I live, we're not in the same district, you know, for-- for 911 to respond.

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft DAVID SANKEY: For emergency response?

ALBRECHT: For emergency response. So I'm on the phone and they're transferring me to Winnebago, they're transferring me to Emerson, they're transferring me to Thurston. I mean, I said, hey, I don't really care who comes to get him, we just need somebody over there and I understand that Emerson has come out before. So that was an eye opener for me that you've got to be kidding me and-- and, like, how could you not know where to go? So, you know, I would just ask you kindly to spend as much time as you need to get up there and figure this out, because this is important to all of us, even if there's a fire in a combine and you're calling in on 911 and they don't even know where to start to find you because it's-- we need help.

DAVID SANKEY: Yes.

ALBRECHT: You know, and when I saw that -- that we're not part of the color of the pictures, that makes me really nervous.

DAVID SANKEY: Yes.

ALBRECHT: And so--

DAVID SANKEY: So, yeah, so as I mentioned, that's why it's so important that we're working with the locals on developing that GIS data so that we get those boundaries accurate.

ALBRECHT: I would like to know who those locals are that you need to work with and I want to be a part of the solution to getting things done up there, because this is -- is about public safety in the -- in the Nth degree because people just don't have home phones anymore. One more quick example, we have a fire and it's April 1 and it's raging and there are 50- to 70-mile wind gusts. So my husband's father had just passed away. I go to the house at noon with all this food. And I said, Mike, I think there's a fire behind the-- the farm, you know, what do you want me to do? And he said -- he -- he thought it was an April Fool's joke. It wasn't. And I'm sorry I'm-- I'm elaborating on this, but you need-- so-- so he said, OK. Finally, he-- he and his brother want to go out to look to see where it's at. He calls back and he says, call all of the neighbors, we need all the tractors and discs, like, you know, I'm not understanding how they're going to put this fire out without any fire hydrants and stuff in the-- in the middle of the county. But-- but my point was I get in the phone book and there's nobody there. I don't know who to call, you know, so I'm

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calling 911 saying, OK, he's telling me to do this. They said, it-we've got it, it's a six-alarm fire. And I'm like, you've got to be kidding me. But everybody converged because everybody knows who to call except me. I don't have everybody's cell phone numbers. So this is really a big deal, you know, to us. And I-- and I-- I just think, you know, I wasn't sitting on the Telecommunications and I wasn't fully aware of what we were all doing within this bill. But-- but I would love to visit with you a little bit more and not take up everybody else's time. But-- but this needs to be handled throughout our whole state, you know, so thanks for all you're doing.

DAVID SANKEY: Thank you, Senator.

FRIESEN: Thank you, Senator -- Senator Albrecht.

ALBRECHT: Thank you.

FRIESEN: Senator Bostelman.

BOSTELMAN: Thank you, Chairman Friesen. Thank you, Director, for being here. A couple questions. On the graph, on the \$1.99 million federal grants and 40 percent match, do you a-- there's a '19, you have to have it spent by 2022. Do you have a plan in place to where you have milestones so you ensure it? It's not in here [INAUDIBLE]

DAVID SANKEY: Yes. So we already have a contract with our consultant in place, our implementation consultant. So we're spending those dollars now. We have a contract in place with the ECaT, so we're spending those dollars now. We have a plan. We get a contract in place with an ESInet and core services provider hopefully this summer, then we can-- then we will be spending those dollars. And we do have-- we do have it laid out as to--

BOSTELMAN: Milestone?

DAVID SANKEY: But we're pretty confident that we would be able to spend that money in that time period.

BOSTELMAN: I'm sure you will. It's just--

DAVID SANKEY: Yeah.

BOSTELMAN: I'm not-- the other question I have, which I think we've talked about before, is, as Senator Albrecht, I think, touched on a

little bit is, as we go across the state, and I know in my counties, you know, as they've upgraded their systems, the local sheriffs, fire departments and stuff, State Patrol, local police, they may have different systems. How is this going to bring them all together into one, or is it? Or are they going to have to turn around-- counties going to have to turn around again and buy all new equipment in order to fit into the system?

DAVID SANKEY: So-- so one of the aspects of regionalization is that those that join a region have to have the same type of equipment that the others do in the region. And so in some cases, they don't have that equipment right now and we're working on purchasing that so that they can have the same equipment be part of the region. The-- the equipment providers now, call-handling equipment providers now, are making their equipment interoperable. So it-- it does work with one another, and it will work with the ESInet when that's up and running and in place.

BOSTELMAN: So if we would go back-- if we'd go back into your regions, the PSAPs, if you go into the different areas on the map, if I'm on one-- in one area, Senator Hughes in another area, we have a-- we have an accident that we're responding to, kind of is in between us. We both respond. Would we be able to talk to each other, even though we're not in the same PSAPs?

DAVID SANKEY: We'll be able to transfer the calls from-- from one to the other.

BOSTELMAN: So we're still going to have that connectivity where he could be standing on one side of the road, I could be standing on the other side of the road, we can't talk other than shouting across.

DAVID SANKEY: Well, so I-- what I-- what I think you're referring to now is more of the-- the first-responder network where Senator Hughes' fire department shows up to the scene and your fire department shows up to the scene and they don't have the same equipment and they can't talk to one another. That's-- that's the problem that the FirstNet is trying to solve. That's the first-responder network authority so that they can all talk amongst each other when they arrive at a scene. What we're talking about is-- with next-generation 911 is receiving the calls from the citizen to get it to the 911 center so we can get that information out to the first responders. Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft BOSTELMAN: So how have you been able to go out and identify our dead spots. And I'll-- specific point is Spencer Dam, no connectivity,

DAVID SANKEY: Yeah.

can't talk to anybody.

BOSTELMAN: We've got a problem. How are we looking to find those areas? I know where I live, pick up calls, drop calls, there's areas. I have a person, a neighbor who is deaf. You know, he came in and testified at our hearing. You know, he has to be able to text. He loses connectivity. How-- how are we handling those?

DAVID SANKEY: So that-- that's a matter of working with the various wireless carriers to identify those areas and encourage them to build additional towers so that calls can be received. It's a business decision on their part. If-- if a person can't, doesn't have connectivity to reach 911 and they can't get to our system, then we can't help them.

BOSTELMAN: OK. Thank you.

FRIESEN: Thank you, Senator Bostelman. Any other questions from the committee? Senator Clements.

CLEMENTS: Thank you, Chairman Friesen. Thank you, Director Sankey. I hadn't heard about this system, but I'm new to it, really. And I'm wondering, are there any PSAPs that are currently using GIS location?

DAVID SANKEY: No, not in Nebraska.

CLEMENTS: Not in Nebraska, all right. Then the other thing about the--

DAVID SANKEY: Well, I'm sorry, Senator. Maybe I need to correct myself. There-- there's not any using it for geospatial call routing and call location.

DAVID SANKEY: They do use GIS mapping now to help with their mapping systems to locate a caller using the current system.

CLEMENTS: Yeah, locating the caller was what I was asking.

DAVID SANKEY: Yes. Yes. But-- but it's not the same as what we're talking about with geospatial call routing.

DAVID SANKEY: Yeah.

CLEMENTS: Then this ESInet network, is it closed or is there going to be available bandwidth for rural connectivity?

DAVID SANKEY: So it'll be a dedicated network just for next-generation 911, closed network.

CLEMENTS: All right. Well, wish we could share it with other people, but I think there are certainly ways to do that with fiber, aren't there?

DAVID SANKEY: Well, there are national standards that we're trying to meet, and the national standards meet-- dictate that the next-generation 911 network needs to be a dedicated network just for next-generation 911. So when a call gets into that network, we want it to be prioritized and we want it to be able to get to the 911 center above all other traffic.

CLEMENTS: All right. Is there any infrastructure that's being developed that can piggyback with this? I mean it--

FRIESEN: I think maybe what you're-- you're getting at is, you know, if-- when people bury fiber, there's usually several strands of fiber.

CLEMENTS: All right.

FRIESEN: Some of those fiber strands are going to be dedicated to this system.

CLEMENTS: Right.

FRIESEN: That means there could be other strands of fiber in there that do something else.

DAVID SANKEY: That are not part of this system.

FRIESEN: But those, those strands of fiber, are going to be dedicated--

CLEMENTS: Right.

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft FRIESEN: --to this 911 system. That also means there's other fiber in that cable.

CLEMENTS: Yeah, there is-- there is more fiber being laid that maybe can be used because--

FRIESEN: Because you're not necessarily owning this fiber. This is going to be-- you're going to give access to it.

DAVID SANKEY: Yeah. We're-- we're going to contract with a vendor that provides us service, yes.

FRIESEN: Yeah, that provides it, and so it's--

CLEMENTS: Oh, OK. Thank you.

FRIESEN: Thank you, Senator Clements. Any other questions from the committee? One of the things I-- I-- I wanted to talk a little bit about, and there have been some-- there-- you said there have been some mergers of PSAPs already. Do you have any now that-- I know the beauty of this system is that a PSAP can hand off all their calls to another PSAP in that region seamlessly. And so are there some operating just certain portions of the day when most of their calls come in or have they--

DAVID SANKEY: They-- when-- when they have become part of the regional system, they can certainly do that. I'm not aware that-- any that do that on a regular basis, but in emergency situations, they do, do that now. If they're unable to take 911 calls, they're able to direct their 911 calls to another center and another center can answer the calls if they're-- if they're in the regional environment.

FRIESEN: And there are some PSAPs that have closed and merged with other PSAPs, haven't they?

DAVID SANKEY: There are. There are, yes. Some-- some folks come in, sometimes new leadership, sometimes they just look at their budget, and they're like, you know, if my neighbor can take my phone calls for me, I'm OK with that, and they make an arrangement to pay their neighbor a certain amount a year to take their 911 calls. Then they-they've-- they've made that decision. There's a couple of counties that have done that already. There's also a couple of areas where they've had-- like a sheriff operates a PSAP and a city operates a PSAP. They've consolidated. Platte County and Columbus recently did

that. York County and the city of York have recently done that. So this process makes that decision making easier for them if they choose to go that route.

FRIESEN: Right. So as soon as-- what timeline do you think the-- like on wireless especially, being able to locate that call and the-- using geo--

DAVID SANKEY: Geospatial call routing?

FRIESEN: Yeah. When is the timeline for that maybe to be put in place?

DAVID SANKEY: I-- I mean, I-- I hope that we can have Nebraska's GIS data to the point where we can geospatial call route in the next couple of years. It's-- it-- it really is the one point that-- the one aspect of next-generation 911 that takes the longest to build out so that you can geospatially call route. As I mentioned, there are-- there are a handful, 10 to 15 states that have an ESInet in place and have had an ESInet in place for many years. For example, the state of Maine has been in place since 2012, but they're not geospatially call routing yet because they don't have their GIS data to where it needs to be. We're working hard on that. We-- we think we have a good plan in place. We hope we can have that data to the point where we can geospatially call route in the next couple of years.

FRIESEN: OK. Back when we first, I think, dealt with this legislation, I thought there was going to be a funding shortage as we moved forward into the-- down the road. Do you still see anything like that or--

DAVID SANKEY: Well, so we have projected the cost of the system out. Again, we're hopeful through the RFP process that-- that our numbers are very conservative and that those costs will come in lower than-than what's initially anticipated. How long it takes us to transition, we may use those reserve funds up by then and there may be additional dollars that are needed. To get to Senator Geist's question, though, if we can get to in-state and the costs are the same that are expected in the ROM cost, then what the-- what-- what's being taken in currently should be able to cover that cost. Some states have increased their surcharge fee for a period of time to cover that transitional time period and then have reduced it once they got to where they-- they didn't need those additional dollars anymore.

FRIESEN: So a-- a county, if they choose not to join the system, do you still cost share on their 911 equipment if-- legacy system or--

DAVID SANKEY: Those-- those-- so, again, we're-- we're encouraging all PSAPs to become part of the regional system and to become a part of next-generation 911. At some point, if a PSAP decides that they don't want to be a part of that, then we would have to evaluate whether or not they would continue to receive 911 surcharge of dollars because it's-- it's our mission to make sure those dollars are spent on next-generation 911.

FRIESEN: I think that was the idea from the committee, too, that eventually that-- that pressure will be applied that we don't fund legacy systems anymore and we transition everyone. But it was nice to be able to just let it happen and I think you-- you-- a lot of territory has done that, so I think a lot of it has worked the way we intended.

DAVID SANKEY: Yes. And-- and-- and just about everybody we've talked to is in favor of doing this. They're just at various stages in development. So, you know, I haven't heard from anybody across the state that says, well, I'm not going to next-generation 911, I'm going to stay put, so.

FRIESEN: OK. OK. Senator Bostelman.

BOSTELMAN: Do you have a target date when you think this may all be completed?

DAVID SANKEY: Well, again, yeah, we hope that at least we have everybody connected to the ESInet within the next three years. We've always talked that it's a three- to five-year project. And again, we hope that we would have our GIS data in place within the next three years so that we could geospatially call route. But we expect that in-- in the next three to five years that we would have this project completed.

BOSTELMAN: Thank you.

FRIESEN: Thank you, Senator Bostelman. Any other questions from the committee? Seeing none, thank you, Mr. Sankey, for--

DAVID SANKEY: Thanks, Senator.

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft FRIESEN: --keeping us up to date. With that, we'll close the hearing.

FRIESEN: OK. Welcome, everyone, to the Transportation and Telecommunications LR166 hearing on the Rural Broadband Task Force recommendations. Welcome to the hearing of the Transportation and Telecommunications Committee. This will be a hearing on LR166, a resolution introduced to review a report from the Rural Broadband Task Force that was issued in late October. I'm Curt Fraser from Henderson, Chairman the committee. I represent District 34 and, at this time, I'd like the other members of the committee to introduce themselves, starting with Senator Albrecht.

ALBRECHT: Hi, Joni Albrecht, District 17: northeast Nebraska.

GEIST: Suzanne Geist, District 25, which is the east side of Lancaster County and includes the towns of Lincoln, Walton, and Waverly.

HILGERS: Mike Hilgers, District 21: northwest Lincoln and Lancaster County.

HUGHES: Dan Hughes, District 44: ten counties in southwest Nebraska.

BOSTELMAN: Bruce Bostelman, District 23: Saunders, Butler, and the majority of Colfax County.

FRIESEN: Thank you. And we have Senator Clements who's sitting in the back there, going to listen in because he's extremely interested in on if he needs to appropriate some money to get something done. This is how we get it done [LAUGHTER]. I have Tip O'Neill, the legal counsel of the committee, and Sally Schultz is the clerk.

HUGHES: [INAUDIBLE] the Vice Chair, sitting over there.

FRIESEN: I introduced LR166 during the last session. Senator Bostelman and I were non-voting members of the task force. That task force was credit, created by the passage of LB994 in 2018. And then the law required that the task force issue a report by November 1, 2019, to the Legislature. Now I don't plan to offer a testimony on LR16 [SIC], other than to say that it provides an opportunity for the public and other interested parties to provide comments on the report. I have asked Ed Toner, Nebraska's chief information officer and chairman of the task force, to begin the discussion on the task force report this afternoon. Before we would begin, I would ask that you silence all your cell phones and other electronic devices. And anyone who wishes

to testify should legibly complete a green testifier sheet located on the table just inside the entrance. Those testifiers should move to the front of the room and be ready to testify. We have set aside an on-deck chair up front here, where you can sit and be ready when your turn comes. Please give your completed testifier sheet to the page. And I don't know that we have a page, but you can give it to Sally when you come to the table. Handouts are not required but, if you have one, we do need ten copies. With that, Mr Toner, your welcome to the hearing on LR166. And I want to thank you for your leadership. Come on up. You did a good job in getting this report on a timely basis, and I know you, you and the subcommittees, and the committee as a whole worked really hard to get this report done on time. And I think, I think we're going to find out now just how good a job you did.

ED TONER: Absolutely.

FRIESEN: So--

ED TONER: Good afternoon.

FRIESEN: --welcome.

ED TONER: Thank you, sir. Good afternoon, Senator Friesen and members of the Transportation and Communications-- and Telecommunications Committee. My name is Ed Toner. The spelling is E-d T-o-n-e-r. I am the CIO for the state in Nebraska and chair of the Nebraska Information Technology Commission and also the Rural Broadband Task Force. The Rural Broadband Task Force was created by LB994 to review issues related to availability, adoption, and affordability of broadband services in rural areas of Nebraska. The 14-member task force met ten times since September 24, 2018. The task force also formed five subcommittees to delve deeper into the issues related to rural broadband and makes recommendations. The subcommittees focused on the following five areas: broadband data and mapping; the Universal Service Fund-- the Nebraska Universal Service Fund; public/private partnerships; alternative technologies; and the homework gap. The five subcommittees have met a total of 30 times. The task force invited over 50 stakeholders and subject matter experts to share their knowledge and expertise as speakers, panelists, or participants in task force or subcommittee meetings. The task force also provided opportunities for public comments during two meetings and received 23 written comments on drafts of the recommendations and the report. The task force report was submitted to the Legislature on October 31 of

this year. I would like to thank the task force members at this time for all their time, effort, dedication to this task force report. There is not an easy one-size-fits-all solution to broadband in all areas of rural Nebraska. At the federal level, the Federal Communications Commission is taking steps to improve broadband mapping and better target federal Universal Service Funds to unserved and underserved areas. The Nebraska Public Service Commission has also taken steps to modernize Nebraska's Universal Service Fund and to improve better accounting-- accountability or provider accountability. As required by LB994, the Nebraska Public Service Commission is investing a state-run, is investigating a state-run, reverse option as a mechanism to spur broadband build-out in rural, rural areas. The task force recommends leveraging these federal and state efforts. Local governments, power-- public power districts, and cooperatives, telecommunications providers, and other stakeholders can also play a role through the development of private/public partnerships. In October NPPD and Paige Wireless announced a partnership to accelerate the deployment of connectivity for sensors and other devices for rural farmland applications. This partnership may serve as a model for broadband partnerships between telecommunications providers and public power entities. The task force identified two areas in which legislation could support the development of public/private partnerships. First, the task force recommends that the members of the Transportation and Telecommunications Committee work with the public power, with the public power and telecommunications industries to reach an agreement on steps that should be taken to make it less burdensome for public entities to lease dark fiber. Secondly, the task force recommends that members of the Transportation and Telecommunications Committee work with Nebraska Rural Electric Association and Nebraska Public Power District to explore, litigate legislation, clarifying communications as an appropriate use for private easement setup for telephone and electric use. Local communities, counties, and regions can also play a role in accelerating broadband deployment in rural areas. The task force encourages local governments to review their rights of way and permitting processes and take steps, if necessary, to make the processes less burdensome for telecommunication providers. The task force also remit, recommends that the local stakeholders develop broadband plans which address the need for better broadband availability, work force development and training, as well as digital inclusion in the homework gap. The term "homework gap" is used to describe the challenge that students who lack home Internet access

face in completing on-line so, assignments. In many communities, libraries play this role, a vital role in the homework gap in providing access to computers, the Internet, and assistance in using technology. However, 84 percent of Nebraska public libraries serving populations less than 2,500 reported Internet speeds of less than 24 megabit per second down-- not sufficient, really, for that service. The federal E-Rate program support, provides support for broadband connections in schools and also libraries. However, the E-Rate program is under utilized by Nebraska libraries, with only 25 percent of public libraries in Nebraska applying for this E-Rate funding. The task force made several recommendations related to improving library broadband and increasing library participation in this program. The task force also encourages local schools and communities to implement programs such as Wi-Fi on buses or hotspot lending, programs which will reduce the number of unserved or underserved students to at least lessen that homework gap that is being experienced in the rural communities. We hope that the report and the recommendations included are useful to these members, to you, to the members of the Transportation and Telecommunications Committee and the Legislature. At this time, I am happy to answer any and all questions from the committee.

FRIESEN: Thank you, Mr. Toner. Senator Geist gets to start things off.

GEIST: Again. Thank you very much.

ED TONER: Thank you, Senator.

GEIST: And I appreciate the work that this report represents. And I have a question about the E-Rate program.

ED TONER: Yes.

GEIST: And it's just something I'm not informed about. And I'm wondering if, if that lack of information is also the reason that the schools and libraries are underutilizing that fund, or what, why you found that that was being underutilized.

ED TONER: Well, the schools are utilizing it heavily.

GEIST: OK.

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft ED TONER: And in fact, there are 244 school districts in Nebraska. We have fiber to all 244 school districts.

GEIST: OK.

ED TONER: And they all take advantage of E-Rate. In fact, my office has taken on the responsibility of actually submitting the applications so that smaller school districts can participate without any undue burden.

GEIST: Um-hum.

ED TONER: So we have 100 percent compliance.

GEIST: OK.

ED TONER: In the library sector, my understanding is it's well known that it's out there, but it is a cumbersome application. There are a lot of federal rules and regulations, which is one of the reasons why we took it on at the office of the CIO--

GEIST: Um-hum.

ED TONER: --so that we could ensure that the applications would be approved. It comes in at about a 70 percent rate of return. So in other words, for every dollar that school districts pay, the federal government pays 70 cents.

GEIST: OK. So there's a matching amount.

ED TONER: Yes.

GEIST: Is that another barrier to comply-- I mean, to applying? Or, or do libraries have that matching amount [INAUDIBLE]?

ED TONER: Libraries get the matching amount. I believe that the biggest barrier-- and again, I don't, I, you know, I can't quantify this, but the rules are quite stringent.

GEIST: Um-hum.

ED TONER: Often the smaller libraries will, are very low staffed. So the individuals-- it's a one-time, you know, one-year, one-time thing every year. And so they really can't get very proficient--

ED TONER: --at that, not to their fault. They're trying to run a library.

GEIST: Sure.

ED TONER: That's not their main job. And so I wouldn't say that it was a lack of anything, other than just time. I think they, they are aware of the funding that's out there. And we, at the office of the CIO, have asked our staff to try and help to really notify the libraries that we speak with about the advantages of the program, because often every dollar they spend now, if we can add 70 cents to it--

GEIST: Um-hum.

ED TONER: --I mean that's-- that goes a long ways to getting fiber into those school districts because the average of 24 meg down is-you use that up with just a few students out. And, and these students are out in the parking lots, you know, after hours, trying to do their homework. So if we could increase that, I think that would go a long ways.

GEIST: OK. Thank you.

ED TONER: You're welcome.

FRIESEN: Thank you, Senator Geist. Questions from the committee? Senator Albrecht.

ALBRECHT: Thank you, Senator Friesen. And is-- am I just-- are we only listening to Mr. Toner?

FRIESEN: No, they'll be a--

ALBRECHT: We'll have other people?

FRIESEN: -- open testimony.

ALBRECHT: OK. So I have about four questions.

FRIESEN: Yep.

ALBRECHT: Thank you. And because everybody else, again, is probably a little bit more familiar with all of this than I am, so trying to

grasp what is inside this report, I have a few questions. So in addressing the availability and the urban rural speed gap, your report stated that use of the census block reporting--

ED TONER: Um-hum.

ALBRECHT: --used by the FCC for disbursement of the NUSF funding, versus the definition used by your task force, can be, can overstate broadband availability. Can you help me understand that?

ED TONER: Absolutely. I don't have the total details. I think others could probably clarify it more, but I can give you a good overview of why we, we stated that. If one recipient of broadband in a census block is receiving that 25 down, which is 25 megabit per second down and three up, they're counting the whole block as being served.

ALBRECHT: OK.

ED TONER: Well, if that's the case, there are plenty of places across Nebraska where that entire block is only being served by that one individual, one entity, whether it's a business, whether it's, you know, it doesn't distinguish. And so what they're saying is that everyone in that block has access; and they don't. And so that's, that's kind of the, the--

ALBRECHT: OK, so--

ED TONER: -- the very high level.

ALBRECHT: So then a follow up to that. So the report also stated that the FCC is currently investigating at least one national mobile wireless provider for overstating coverage.

ED TONER: Um-hum.

ALBRECHT: Do you know-- do you have a provider in mind that--

ED TONER: I don't know--

ALBRECHT: -- the task force--

ED TONER: --which one that is, off-- I can't recall which, which one. But I think that's a-- you know, they're going by the state, federal rules. And I really can't comment on exactly what that is.

ED TONER: Maybe someone else.

ALBRECHT: We'll visit a little bit more after. OK, second question, real quick.

ED TONER: Um-hum.

ALBRECHT: Committee recommended to encourage Nebraskans to participate in overcrowding-- on page 4-- the "efforts developed to enhance federal broadband mapping." What is oversourcing?

ED TONER: That would be better answered by the Public Service Commission.

ALBRECHT: OK.

ED TONER: That's more in their, in their area of expertise.

ALBRECHT: OK, I will check with them. Another one the committee recommended, on page five, is to encourage the Public Service Commission "to continue to investigate a state run reverse auction as a mechanism to spur broadband build out" in the rural area. And on March 12, 2019, the Public Service Commission began to process and adopt reverse auction and wireless registry rules.

ED TONER: Um-hum.

ALBRECHT: The process of developing rules and regs is expected to take approximately one year. So I'd like you to please explain what is meant by state run reverse auction. Is that something that--

ED TONER: Yep.

ALBRECHT: -- you can answer or the PSC?

ED TONER: It's very-- they, they can clearly give you much more detail than I could.

ALBRECHT: Um-hum.

ED TONER: But the reverse auction is very much, as it states, where you would provide a bid for a circuit or an area, and it's the lowest bidder wins. So in other words, instead of an auction where you go to

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and you bid up to buy it, it's whoever goes the lowest actually obtains the account.

ALBRECHT: So here's my question. So does that benefit one business over another?

ED TONER: No, it actually, I think, puts them on a level playing field because they-- it's-- they're, they're able to bid.

ALBRECHT: Does it harm or negatively affect any business or provider in doing that?

ED TONER: No, it would be very much like our RFP process that we have in the state today where, unless there are technical issues or concerns with the provider that has the lowest bid, we would accept that bid.

ALBRECHT: OK. And the last one. What alternatives to fiber infrastructure? So technology has continued to advance.

ED TONER: Um-hum.

ALBRECHT: On page 15, there were several emerging technologies that may be well suited for rural areas, including fixed wireless using midband spectrums, TV whitespace, and low Earth orbit satellites. AT&T's AirGig tech, technology, may be another technology to watch. So does the small cell wireless servers, service also allow companies to provide Internet without building out infrastructures to homes and businesses?

ED TONER: Now you're more-- a little more in my, in my, my share of expertise, which is the technology side. There are-- one of the, one of the things that we're seeing in the private industry is they are coming up with some innovative ways to get broadband to rural areas--

ALBRECHT: Um-hum.

ED TONER: --like the low orbiting satellites that's done by Elon Musk. Microsoft is really pushing the TV white space, and all this is the spectrum available, just like radio wave spectrum. And the federal government actually assigns a spectrum.

ALBRECHT: Um-hum.

ED TONER: First, that's a good example. First Responder Network is a part of that spectrum called Band 14 that the federal government has allowed use of. Well, those spectrum, like TV whitespace, uses the same spectrum as TV. And what it does is it doesn't interfere with a TV signal, but it actually utilizes that signal to transmit the broadband, though satellites-- the problem with that is the high orbit ones, they, their coverage is spotty at best, and the lower satellites would have more density and be able to provide more-- a larger amount of broadband to more areas and more-- and less interruption. So there is a lot of push to move into this area. So there's a lot of private industry interest because they see it as a, as an opportunity.

ALBRECHT: Um-hum.

ED TONER: The second part of your question was--

ALBRECHT: Does the small cell wireless service--

ED TONER: Oh, the small cell.

ALBRECHT: -- allow the companies --

ED TONER: Small cell is really more for the 5G, which would really benefit more densely populated areas like Lincoln--

ALBRECHT: Um-hum.

ED TONER: --Omaha.

ALBRECHT: Um-hum.

ED TONER: We certainly could use it on game day at the, at the games because of the fact of you saturate--

ALBRECHT: Um-hum.

ED TONER: -- all of the broadband available --

ALBRECHT: Um-hum.

ED TONER: -- in that area, especially used by, by cell phones.

ALBRECHT: Um-hum.

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft ED TONER: So the 5 G is very-- I mean, it's, it's, it's a great technology. I think it serves a great purpose, but there's limitations as to distance. And so you have to really -- to, to really be beneficial, it would have to be a metropolitan area. ALBRECHT: Um-hum. ED TONER: So it really wouldn't fit into those--ALBRECHT: Um-hum. ED TONER: -- those areas of use by the rural areas as much as a town. A small, a small town could, but I would say--ALBRECHT: It wouldn't--ED TONER: -- outside city--ALBRECHT: Probably won't see that any time soon. ED TONER: Yeah. ALBRECHT: OK, one last question. ED TONER: OK. ALBRECHT: So when you talked about the farming community, you talked about the schools and the libraries, with the children. But what about the ag industry? ED TONER: Right. ALBRECHT: You know, are one of the committees that you guys broke down, are they working on just the ag sector of what's going on in this particular? ED TONER: We did visit one of the extension centers from the University--ALBRECHT: Um-hum.

ED TONER: --one of the agriculture extension centers, to get some feedback from them. They showed us some of the technology they were using, such as drones.

ED TONER: And they helped explain to us really the need for the technology in regards to, not only sensors for moisture, insect--

ALBRECHT: Um-hum.

ED TONER: --control, all kinds of different things that they could use. So we really wanted to understand the uses of that. But they, even at that extension center, had a fairly low level of broadband coverage. And in fact, they were throwing flying drones and they couldn't get real time information back.

ALBRECHT: Um-hum.

ED TONER: So they had put SIM cards or data storage on there and then get it afterwards, get it back. So it's, it's-- we went there to really investigate what is the need. And if, if they could have higher broadband speeds, what could they, what could they do? And the answers were pretty much: get real time information. It'd be much, much more valuable--

ALBRECHT: Um-hum.

ED TONER: --to the farmers to upload crop data to a lot of the, the ag companies that could then give them real time feedback on their crops.

ALBRECHT: I probably should have invited the rural task force. I went up to Norfolk, and they did a little show about the new combines and all of the--

ED TONER: Autonomous vehicles.

ALBRECHT: --data that's inside. You could sit in your lawn chair and watch it run if you had the ability to buy something like that. But more importantly, if, if they really think that we're doing OK on the ag part of it and the 90 counties that are not just on I-80 where it's flat. I mean, when you have hills where we live--

ED TONER: Um-hum.

ALBRECHT: --I mean, sometimes you have service and sometimes you don't. But if the technology that we need to drive our state, that

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft that has to be a big part of this picture, because you may very well think that all the farmers have access like you might think all--ED TONER: Um-hum. ALBRECHT: -- the children do out in the country, they don't. ED TONER: And--ALBRECHT: So I appreciate what went on here. I just hope that we're digging a little bit deeper into--ED TONER: And we did have --ALBRECHT: --what we did do--ED TONER: --representation--**ALBRECHT:** --to make this [INAUDIBLE]. ED TONER: -- from the farming community. ALBRECHT: Um-hum. ED TONER: And it was an eye opener to me to go and actually see the

ED TONER: And it was an eye opener to me to go and actually see the tech, technologies. As you say, the autonomous vehicles--

ALBRECHT: Um-hum.

ED TONER: --that could be utilized with the broadband availability. So the only thing really-- those technologies are here now. We just need to get the broadband out there to them.

ALBRECHT: Um-hum, thank you.

FRIESEN: Thank you, Senator Albrecht. Any other questions from the committee? Seeing none, I do thank you for your leadership on that--

ED TONER: Thank you, sir.

FRIESEN: --task force. When I saw that you were in that position, I knew it would get done on time. I've worked with you before, so I do appreciate your efficient leadership and seeing that it got done; appreciate it.

ED TONER: Well, I appreciate the entire team. I did not expect the effort that everyone put into this. It was amazing, the number of meetings. And so I just want to, publicly, again say how much I appreciate. I, I had an easy job because we had some motivated people on this committee.

ALBRECHT: Um-hum.

ED TONER: Thank you.

FRIESEN: Thank you. OK. Now we'll open it up to testimony from the audience. There is really no pro- or anti-testimony. It's just going to be testimony in general. So as you come forward and line up, we will just work down the list. Make sure that when you start to testify, you state and spell your name. Welcome.

ROBERT POST: Thank you.

SALLY SCHULTZ: Are we using the lights?

FRIESEN: We-- not yet. We're not really using the lights, so I mean, try to hold your testimony to five minutes or less. We don't want to, I guess, be here all evening, but we're just going, we'll try and work through it and see once how it goes and [INAUDIBLE].

ROBERT POST: OK. Thank you. The last time I was here, I had three minutes, so--

FRIESEN: Yep.

ROBERT POST: --we'll try and get through this. My name is Robert Post. That is R-o-b-e-r-t A. P-o-s-t. And I'm a long list of things. I'm a chair of the Banner County Board of Commissioners. I'm a member of the board of directors of the Nebraska Association of County Officials. I'm the Nebraska representative on the National Association of Counties and chair of the Rural Action Caucus on the national level. In March of 2019, I attended a listening session at the FCC in Washington, with other county officials from across the country. They were interested in our struggles and ideas. The thought I discussed with them was the old REA model. If the FCC could get the backbone for this bill, similar to the federal government providing the generation and transmission of power to the utilities back in the '30s, then the REAs and smaller companies could build the local systems for broadband. In Banner County-- I'll use Banner County as an example;

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it's what I know the best right now. In Banner County we have a wireless provider who is trying, but shortage of funds and a lack of access to download is problematic. CenturyLink has a fiber cable within 200 or 300 yards of one of their towers, and they won't allow them access. And I've heard that story across the country, that the major telephone companies, the major fiber companies don't want to allow access to their fiber, even though there's capacity available. Get back-- get back where I was. It seems the big players won't help. I'm quite sure, in their history, some federal money was sent their way. Yet they won't help. I think this is, this is where pressure on the major fiber owners would give some relief and would be helpful in many instances. As a county, we have offered to help them with tower space and helping locate tower sites. And we are now in the beginning stages of applying for a grant for them. We like private/public partnerships. Some counties and municipalities are doing themselves. The small community of Hemingford, Nebraska-- it was called Hemingford Telephone. And then they, they started a company called Mobius Communications, laid fiber to the area farms, and continued to expand it. I believe they're now in Rushville. I think some grants helped them get started. But they did most of the work in house. Small town worth, work ethic and devotion to community has helped make a big difference in the northern Panhandle. They are a model to follow. The National Association of Counties developed an app called TestIT, and that came out of the Rural Action Caucus, which I'm the chairman of the board of. And it's on a cell phone. Anybody can access it. You just download the TestIT app and the, anywhere you go, you set -- you test the signal, and it'll tell you what's there. And I've been all over the country and there's very, very few places that actually have 25. And it's just, it's a, it's a, it's an epidemic here. I'd encourage you to get that. But along that lines, you've heard that the FCC is starting to pay a little bit of attention. Well, the TestIT app had a lot to do with that. The TestIT broadband speeds for any mobile device, and it gave proof and made it abundantly clear the FCC maps were incorrect. Self reporting is how the map was developed. Oftentimes the service was actually only sufficient to a few customers. I believe he already alluded to that. More, more recently, census blocks were auction, auctioned off in a CAF-II auction and the one, winners received money to buy, to buy, to provide service in those areas. A company called AMG Technology Group, a.k.a. NextLink, got \$41 million of the CAF-II auction to provide wireless service to scattered areas of Nebraska. And I did include a map of that. I apologize for the map. I went to get them copied and they wanted \$128

to make 15 color copies, so I opted for black and white. They're not very good, but I'll try and go through them with you. So they're very scattered. They're a wireless company currently, currently serving central Texas. These blocks are so scattered, not much will happen in the very rural areas. Once again, it seems, it seems that --once again, it seems it will be wireless, not fiber. That brings up another question. Is wireless security enough? Is that the best top, technology? I have been told that some employers require fiber for their work-at-home employees. I do not have-- I have not verified that, but it makes me wonder. In another conversation I had with a fiber tech, his spin on it is that fiber will last a long time, all that needs to happen to upgrade the equipment at each end to adopt to new systems. And as a last note, I've included a few maps to show the census blocks used in the CAF auctions. The blocks I found interesting are of my ranch. There are three and there are no homes in that area. AMG got the large block, but the two smaller ones were not taken-strange. My home is not in any of them. I have included a map of AMG's home service and area service coverage in Texas. It's still not 100 percent sap, saturation. I'm not against AMG, but I'm sure the provider we now have would have been able to upgrade our service had they been given some assistance. The CAF option seems so counterproductive. Ultimately, I think we need to run fiber. In the end, it will provide homes and farms with options needed now and the future to grow. Sure, wireless can fill the gap, but I think the future demands fiber. So you want to go through the map? The first map that-- the black line is, is my ranch. And then there's three census areas. But if you notice, the one little went off to the-- kind of the lower right. That's a census block. Now how they determined that little tiny piece as of census block, I have no idea. The second map is just a topographical map of my place, so you look-- the part that's in the upper part of the next map is the part that's all in the hills, and that's a census block. So if you look at the next one, there's, there's the black line that's mine. And then there's the white area, which is not in a census block designated right now. And then the gray line that follows that zigzag down, that's the large block. But you'll see there's two little blocks in that census block. It just makes no sense how they, how they arrived at the census blocks. And AMG got the large census block, but they did not take the two little pieces. And this black and white map is the auction results, Yours probably doesn't look like this. But if you look really close, the census block that we're looking at is right here. And if you'll see, this is what AMG got in Nebraska. It's it's pretty scattered. I mean, it's kind of

concentrated in a few places, with these folks out in the middle of the Sandhills, they didn't get included in that. They didn't get bought.

FRIESEN: OK. Would you wrap up?

ROBERT POST: OK. I'm just about through. I think there's one more. Yeah, and the last map is, is actually a footprint of what AMG services in, around their base area around Dallas. And it's still not a 100 percent saturation. It's pretty good coverage, but it's not 100 percent. So was there any questions?

FRIESEN: Thank you, Mr. Post. Any questions from the committee? Senator Bostelman.

BOSTELMAN: Thank you, Chairman. Thank you, Mr. Post, for being here. Quite interesting, your background experience. Probably need to talk to you a little bit more--

ROBERT POST: Sure.

BOSTELMAN: --out of, out from here, in general. When you were at the, talking with the FCC, were you talking anything about census block reporting, those type of things, and the new-- what they're proposing, what may be coming out? Could you speak, speak to that at all?

ROBERT POST: It was a listening session and, And basically that's what they did was listen. And we all-- there was, there was commissioners from Florida, Idaho, Arizona. I can't even tell you where all we were from. But we all threw out ideas, and there was some discussion about the census blocks and how we thought that that was backwards, that was counterproductive. If they would have initially taken this money and gone to these major fiber companies and said, we're going -- the federal government is going to pay for access to these fibers so that the little guys can get tied onto it, I think that money would have gone so much further. But it's so scattered now, and the money is-the USDA has got money.

BOSTELMAN: Did you get a-- did you have a feeling from that meeting that your definition of rural was different than probably some of the others? And the reason why I ask that as I get a link, to like BroadbandUSA, where they send out this monthly thing and there's-- you can click in and--

BOSTELMAN: --a lot of times they're talking about rural connectivity. And that's around Atlanta, Georgia.

ROBERT POST: Yeah.

BOSTELMAN: OK. And we're, we're talking apples and oranges with this because they're connecting rural and they're going out to communities and connecting rural. We're connecting rural in more of a town or a village and farmsteads or ranches.

ROBERT POST: Right.

BOSTELMAN: That's different, so--

ROBERT POST: And I-- you know, I can't say that they didn't understand that because there was one gal that testified from Kentucky and, in her particular area-- I don't know if you've been in Kentucky, but it's ridges and valleys and ridges and valleys. And so it's pretty, pretty difficult to get broadband there. And she gave the example that a lot of the schools are assigning their kids homework on their laptops. They go home, they can't-- they haven't got anything. So a lot of these in a lot of these communities, these kids are coming back to town. They're sitting on the lawns of the courthouse or going to the library, wherever they can get a, wherever they can get a hotspot to do their homework. And there was one community there that even was attempting to put hotspots on their school buses, so when some of the school buses were parked around the community, these kids could get could get some Internet access. But this is just so counterproductive to give these kids laptops, laptops, tell them their homework is on the laptops, and then they can't access it. They might be able to use a cell phone signal for part of it and-- just-- I'll, I'll finish up with this unless there's more questions. My thought about fiber is we just went through a blizzard in western Nebraska. We lost power and we lost our fiber-- or, or we lost our Internet. And I just, I was just thinking to myself, if it would have been fiber, at least I still would have had my Internet. And, and it wasn't -- that site didn't go down because of power, because it's a solar powered site. It's just that, you know, it's weather related. I'ts, it's susceptible to weather. And I think we owe it to ourselves. We put in, we put in rural electric 90 years ago. I just don't understand why these country, country can't get us broadband, get us fiber. If Hemingford,

Nebraska can do it, the rest of us should be able to. How to do that? I don't know.

FRIESEN: OK. Thank you, Mr. Bostelman-- Senator Bostelman. thank you. Any other questions from the committee?

ROBERT POST: Thank you so much for your time.

FRIESEN: Thank you, Mr. Post.

ROBERT POST: Load TestIT app. You'll enjoy what you don't see.

DANNY DeLONG: Good to be back in front of this committee again.

FRIESEN: Welcome.

DANNY DeLONG: Thank you, Senator. When some of you are on the broadband task force, you will have seen or had access to the presentation that we're handing out.

FRIESEN: Could you, could you please state and spell your name?

DANNY DeLONG: I'm sorry. I was just kind of like trying to wing it for a moment there. Sure. My name is Danny DeLong, and that's D-a-n-n-y D-e-L-o-n-g. And I'm here today testifying as a volunteer on behalf of AARP, Nebraska. I distributed the letter to you, the AARP letter that was submitted to the task force during the public comment period preceding publication of the task force's annual report, Affordable and accessible broadband service, regardless of its urban or rural location, is an essential and threshold service necessary to all Nebraskans. So first, I'm going to visit, just a moment, about accessibility, because without that, the rest of our ideas don't make sense. We know that a substantial portion of the work completed by the task force has focused on access issues, how to get build-out. Access to reliable and, truly, high speed broadband access improves equity and makes communities more livable for all Nebraskans. In surveys conducted by AARP and UNO's Center for Public Affairs, older Nebraskans say their most important goal is to age in place. They want to live where they've always lived. They want to live out their years in the community which has been and is their own. Broadband technology is now a vital tool to aid Nebraskans to remain in their home and in their community by providing access to the following types of services: health care; supportive technologies to assist with overcoming functional limitations; entertainment; distance learning;

telehealth-- a real priority for us, I think now; social connectedness with family and friends; and enhanced tools available to caregivers who older adults rely on for significant support in order to live active, healthy lives at home and in the community. Affordability, however, is a different issue. Higher priced service may prevent broadband adoption and may limit the ability to purchase other essential goods. High or unpredictable broadband costs present a particular burden for older adults, many of whom live on fixed incomes and do not have the resources or flexibility to withstand significant changes to their expenses. More than 52 percent of retirees, age 65 and older who live alone or with a spouse, do not have sufficient income to cover expenses for basic necessities such as food, medical care, prescriptions, and transportation. In 2019, the average Social Security retirement benefit is \$1,461 per month, \$17,532 annually. The Social Security Administration estimates that 21 percent of married seniors and 44 percent of single seniors rely on Social Security for 90 percent or more of their income. Affordability is a significant barrier to the use of broadband service for our older citizens. I just-- I'm going to cover [INAUDIBLE] some demographics of an aging but working Nebraska. The UNO Department -- these are from the UNO Department of Gerontology in 2019-- the number of Nebraskans, 75 years of age and older, surpassed the number of Nebraskans under 5 years of age for the first time. That, that graph looks like this over 40 or 50 years. Here are the five-year-olds. Here are the older folks. So we've got, we've got problems there. Between 2010 and 2050, the 85-plus population in Nebraska's is projected increase 163 percent, from 42,000 to 121,000. More than half of Nebraska's 93 counties will see an increase of 100 percent or more, in other words, a doubling of its population of persons age 85 and older. Additionally, 64 percent of farmers and ranchers in Nebraska are 55 and older, the average age 57.8 years. Twenty-two percent of Nebraskans over age 65 are in the work force. You want to see Nebraskans in the work force? Go to Menards in the morning, go to Lowe's in the morning, go to Home Depot in the morning, go to a lot of big box stores. Who's working there? Older folks. They come to work, they do their work; they're valued employees. Seventy-five percent of persons, 55 and 65, are in the work force, representing the second highest rate of work force participation in the country. That's Nebraska's older people in the work force. Persons age 65 to 74 are still working, are still driving. Many of you know, folks like this. They're getting around in the community and may be caring for an aging parent who is 85-plus years old. I'm going to wrap it up. Older Nebraskans are an asset, not a

liability. We will continue to press that message. Older Nebraskans are an asset, not a liability. Collectively, they are a source of energy and stability in rural and urban communities. We view accessible and affordable broadband as an important investment in older Nebraskans, especially those who live in rural communities which are suffering a significant loss of health care resources as part of a larger set of economic dislocations. High speed Internet-based technologies have the potential to empower older adults to continue to live more productive, independent, and satisfying lives. Our aging population is caught in a digital gap, which is itself part of a growing rural urban divide in Nebraska. A 2013 AARP research report, six years old now, explained that bridging the digital gap can help support the needs and ambitions of older adults in the areas of personal fulfillment, health preservation, social connectedness, functional capability and activity, and caregiver support. Lastly, AARP Nebraska urges support for an effort to extend accessible and affordable broadband service to our citizens living and working in rural Nebraska, especially 50-plus Nebraskans, Nebraskans age 50 and over. Thank you for the opportunity to provide comments and we look forward to the ongoing conversation.

FRIESEN: Thank you, Mr. DeLong.

DANNY DeLONG: Thank you, Senator.

FRIESEN: Any questions from the committee? Seeing none--

DANNY DeLONG: See -- a perfect presentation.

FRIESEN: Thank you.

DANNY DeLONG: Thank you.

FRIESEN: How many, how many more people do we want-- want to testify? OK, I'm going to, I'm going-- at five minutes, I've kind of got a clock going here. And so we're going to try to hold it down to under five minutes, and we're going to have to start using the lights. Welcome.

BURKE BROWN: Thank you. Good afternoon. My name is Burke Brown, spelled B-u-r-k-e B-r-o-w-n, and I am the technology coordinator at School District OR1 in Palmyra, Nebraska. I also serve as a K-12 teacher education representative on the Nebraska Information Technology Commission's Education Council. I am here today to share

information with you about the homework gap and the effect that digital inequality is having on our education system. District OR1 is located about 15 miles southeast of Lincoln, so we're a bedroom community. We have 526 students from grades K-12. Nineteen percent of those students are free or reduced lunch recipients. While we enjoy a quieter, slower pace of rural living, our quality of life differs in one major aspect: broadband availability. So many of our rural student households are struggling to achieve broadband fast enough for them to do their homework or they have no homework ability at all because they don't have Internet. Our school district has made a financial commitment to put Chromebooks in the hands of our students from grades 4 to 6, and students from 7 to 12 get to take them home every night. Every student, every one of our students is likely to have digital homework every night through on-line textbooks or through our learning system of Canvas. So they'll have, they'll take guizzes at home, they'll watch videos at home. And honestly, it's every, every day a kid's going to have that on, that on their plate. Everything is fine during the day. However, about 20 to 25 percent of our students are at a disadvantage without home Internet. Some would like to go to a public library, but Palmyra is the only town in our district that has a library, and they have an Internet speed of 12 megabits per second, and they're only open 15 hours per week. In July 2019. the Nebraska Department of Education administered a homework gap survey to 21,000 K-12 teachers, and we achieved response from over 6,900 teachers, answering the 12-question survey. Some of the findings, which are detailed in Appendix 10 of the Rural Broadband Task Force Report, are over three, three-fourths, or 77 percent of our teachers agreed that if all students had broadband at home, they would positively impact the students' learning and achievement. Nearly half of the teachers, 48 percent, agreed that the absence of home Internet access for some students affects the level of homework assigned. So we have teachers not assigning homework because they know about 20 percent of the kids aren't going to be able to get it done. An overwhelming majority of the teachers reported that accommodations are being made to address students' lack of homework, that it needs to be taken care of through accommodations. The accommodations cited include: providing more class time; providing some students with printed materials; providing before-school and after-school time; informing families about community locations; assigning less homework, which is counterproductive to education; allowing more days for students to complete their homework; placing less emphasis on homework; and lending cells' hotspots to all-- or to students without Internet

access at home-- that was about 3 percent but, again, you're not going to get broadband. While these accommodations seem excellent in coping strategies to combat the homework gap problem, they are all impacting the level and efficiency with which we educate our children, and that we should be concerned to all Nebraskans, but particularly policymakers and members of this committee. Very few administrators enforce to their teachers the, that you have to give printed materials to your students. In our district, we, we have that rule, and it is its challenged when teachers are teaching seven periods a day and seven preps a day. For them to do an on-line version and a printed version, it's a challenge. If a student has a digital piece of homework that is not handed in, it takes 300-- or it takes three 100 percents to erase 1 zero that they get. I'd like to share an expert from, excerpt from a parent that I received in December of '16. But it's-- since then I haven't been able to make any changes in my district. This parent said that I could use her name. Her story starts: So here Liz [PHONETIC] and I sit in a running car outside the library in Syracuse so we can use the free Wi-Fi. Liz [PHONETIC] tells me that she was told by her teacher, since she gets the Chromebook, you don't have any excuse for not getting your vocabulary done. But it is an on-line vocabulary. I did talk to that teacher. Perhaps you assume everyone has Internet access at their homes. I don't believe you have data to support that. Even when some family members have Internet access via smartphones, using a smartphone as a Wi-Fi hotspot can burn through data quickly. We don't have a smartphone, and we don't-- and have a hotspot only so my husband can use the Internet while at work. We can't afford to have the kids use a lot of the data. I applaud District OR1 for making sure the students have access to Chromebooks, but you need to be watchful that careless assumptions don't lead to certain students to worsen grades simply because of the limited or no Internet at home. I did not always appreciate homework as a, as a kid, but I guarantee, as a teacher, part of our strategic plan in our district is to extend the school day for our technology plan. So it just -- it's counterproductive to us there. In my opinion, we must accelerate any and all methods and technologies available to counteract this phenomenon. School districts that are rapidly moving their curricula to the cloud often do this to avoid expensive textbooks and to supplement materials. The school districts are depending on us to assure that every student has 24/7 Internet access while away from school. So in closing, I commend you for passing LB994 to make rural broadband available, availability a focus for Nebraska. I applaud the work of the Rural Broadband Task Force and the findings

and recommend, recommendations of the Homework Gap Subcommittee. I am hopeful that U.S. policymakers will take this problem very seriously and use whatever policy and funding tools at your disposal to remedy this digital inequality as quickly as possible. In closing, I'd like to-- I had this story that most people don't make it--won't put it in writing. But I had another parent at our one-acts last week. She lives about two miles from our school, but she can't get Internet access beyond-- one megasecond is what she pays for, and she has to pay for a phone line, and she has to pay for the Internet. And oftentimes it's less than a meg. her son is in my class. He wants to be an engineer. Her daughter wants to be a zoologist. And those two, those two forms of study just scream, "I need Internet access and I need to get resources online." So I'll entertain, at this time, any questions.

FRIESEN: Thank you, Mr. Brown. Any questions from the committee? Senator Albrecht.

ALBRECHT: Thank you, Senator Friesen. First, Mr. Brown, I want to thank you for your testimony today, because it just screams what's happening out in rural Nebraska. And the task force had a task to do, but I don't, I don't-- maybe this particular survey should have been done before any of the schools invested in the computers for the children--

BURKE BROWN: Yes.

ALBRECHT: --because, you know, some people can, some people can't; technology is moving very quickly. But if we're the center of the universe here, and we can't figure it out, I mean, what are we doing to our children? And how are they not going to be able to, to keep up with the others? You know--

BURKE BROWN: Yeah.

ALBRECHT: --with-- I mean, people would want to move out of your town just because their children aren't going to get the education they deserve.

BURKE BROWN: It is true. And this, this parent that just approached me at the one-act, her son is doing really well. He's stays in school. And I'm a tech coordinator. He pretty much has free access to my office until he doesn't want access to my office. But , you know, the

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daughter is in seventh grade and she's saying: I need to find a way to get her to Lincoln--

ALBRECHT: Um-hum.

BURKE BROWN: -- and because they have a great program, but she doesn't have any Internet to, to supplement what we can provide her at school.

ALBRECHT: And I just hope people hear you because, I mean, in Wayne, where-- in my district-- these kids have to get up early to go to McDonald's or hope that the library is open before they get to school so they can have access. It's just not right. And I can't believe we can have phones in every home, but we can't figure out how to get this deal taken care of, so--

BURKE BROWN: I, I appreciate your words, Senator.

ALBRECHT: --thank you for your information and for sharing it with us; appreciate it.

BURKE BROWN: Thank you. In response, I will just say I really thought I was well informed going into the, our one-to-one program. I thought I was. We implemented programs--

ALBRECHT: Keep doing what you're doing, though, for the kids.

BURKE BROWN: Thank you. We implemented programs from 7:30-- at 7:30 in the morning, we-- or 7:15-- we had a teacher there that-- and then until 4:30 at night we had a teacher there. But that doesn't work. with parents at work.

ALBRECHT: That's right.

BURKE BROWN: And so we-- I thought I was, I was, I had the magic trick, but it wasn't.

ALBRECHT: Um-hum, um-hum.

BURKE BROWN: So thank you.

ALBRECHT: Thanks for what you do.

BURKE BROWN: Are there any other questions?

FRIESEN: Thank you, Senator Albrecht. Any other questions from the committee? Seeing none, thank you, Mr. Brown, for your testimony.

BURKE BROWN: Thank you.

KRISTEN GOTTSCHALK: Senator Friesen, members at the Transportation and Telecommunications Committee, my name is Kristen Gottschalk, K-r-i-s-t-e-n G-o-t-t-s-c-h-a-l-k. I'm the government relations director and registered lobbyist for the Nebraska Rural Electric Association. Rural Electric Association has 34 rural electric providers as members. And with those members, there's over 100,000 miles of rural distribution line. And I want to put that into perspective. We average about 2.7 meters per every mile of line that's out there; and that's meters, not customers. So we do understand rural when it comes to what truly is rural Nebraska. We feel very strongly that access to rural broadband is a key economic development driver for rural areas and not just for rural Nebraska, but for Nebraska as a whole. A strong rural community is is a strong state. The earlier testimony really exemplified why we need to be aggressive in addressing this gap, this digital divide that exists out there. And we do applaud the task force and the Legislature for passing LB994. The diversity of membership on the task force really was critical to actually coming forward with recommendations that are meaningful in understanding the process. While we do feel that the efforts were commendable, we do feel like the, the recommendations from the task force were maybe a little too broad. And as the Legislature needs guidance in this process, ferreting out some of these issues a little, a little further might have been beneficial. But I think we, we have an excellent start. We do believe that the creative partnerships that have been mentioned are critical. And utilizing different technologies, where necessary, will ensure that no area is going to be left without broadband. Now while fiber to the home is the laudable goal -- that's what we all would like, at least for today's technology standard-- we also understand that cost and availability and timing-that may not be possible. So that as the Legislature looks at this, we look at all available technologies so that we can even bridge the gaps a little bit sooner, but acknowledging that, while we may bridge the gap with the lower-tier technology, we need to consider that bringing those into the upper-tier technologies is the ultimate goal. When we looked at the current status of broadband development, it was, it was important for us to notice, or to know, that the task force did understand the limitations of the FCC data, which has been broadly used to indicate broadband availability. It was important. There,

there needs to be further discussion in this, and we heard it from a previous testifier, that availability and access is also related to cost of the technologies. And those of us that live in rural areas, we've become accustomed to paying a little bit more for things just because we understand we're further away from business centers, we're further away from the core. But we also know there's a limit to what we can expend as a rural community. Now specifically, I want to address some of the issues, and public/private partnerships is, is one of those those issues that came up during the, the task force. And as Mr Toner indicated, one size does not fit all. And so when we look at a public/private partnership model, flexibility is really the key. And so if there is, or as we move forward, when we look at legislation, we want to be sure that any legislation introduced does not limit that flexibility, that it does not overprescribe what a partnership model could be, because what works in Hemingford, Nebraska, may not work in Palmyra. These things need to be considered, and you need to leave a flexible framework for those that participate. So no mandated process, but flexibility for implementation. One of the things that came up, also during the task force, is to reduce or remove the statutory encumbrances to leasing dark fiber by public entities. And as technologies increase and the need for greater efficiencies in the rural electric environment, we find ourselves looking at the need to, to upgrade technology. And for some of those systems, it may mean that they work in a partnership with the provider and simply lease services from them. But for some distribution systems, some utilities, they need-- because of their security needs and other functions of their system, they may want to own that fiber. Well, it becomes expensive. And if you can get into these public/private partnerships where you can work cooperatively and lease that fiber at a reasonable rate, that partnership becomes more effective. And so we've got to understand, you know, dark fiber owned by rural electric providers isn't going to solve this problem; it's one key in the process. And we need to look at how it currently is. So currently you have to go through the Public Service Commission. They look at market rates, and there's an evaluation. And a portion of your profits, for nonprofit utilities, a portion of your profits have to come back into a fund. And our recommendation is that you remove all the barriers regarding price setting, and perhaps even remove the existing language in statute dealing with dark fiber leasing. We have to recognize that public power systems and private companies are big boys and girls, and can negotiate contracts, at agreeable rates, for those services. And there should not be an extra encumbrance in the process. And also the

portion that says 50 percent of the profits should go into the Internet Enhancement Fund, that hasn't really accomplished anything. We have one lease of dark fiber in the state right now because of its limitations. And so monies going into that fund really have not been, been effective in expanding broadband. Now one of the things that has always come up is that we didn't want our rural electric providers to become Internet service providers, and we do not want to be Internet service providers. But if we can be a partner in making sure that our consumers have what they need to be successful in rural Nebraska, we want to be part of that partnership. We prefer to support the success of our local businesses, and that could be our local telephone cooperatives, the private telephone companies, independent service, and Internet service providers and wireless Internet service providers. So it's just a broad core that can come together to solve the problem. And one of the other things that comes up is there is a difference between a rural public power district and a rural electric cooperatives. A rural electric cooperative should not have the same restrictions placed on them that you might put on a political subdivision of the state, like a public power district. We also need to look at the, the recommendation that the task force put into place to look at regional planning. We have municipal areas in the rural communities that may be able to make a business case to expand Internet service in that community. But without regional planning, that pocket of Internet service may take away a business case for going further. So if they can plan together and work together to, to cover a broader area without creating a restriction or the loss of a business case, I think we really have to support that through this process. So with that, I know you have a lot of testifiers behind me. The rural electric systems are ready and willing to participate in partnerships to expand broadband development, and we'd like to be there to help form the policy process.

FRIESEN: Thank you, Ms. Gottschalk. Any questions from the committee? Seeing none, thank you for your testimony. Welcome.

JASON PERDUE: Thank you, Senator Friesen and members of the Transportation and Telecommunications Committee. My name is Jason Perdue, J-a-s-o-n P-e-r-d-u-e, and I'm here on behalf of the Nebraska Farm Bureau. I live in rural York with my wife, where we serve on the County Farm Bureau, as well as at-large members on our state's Young Farmers and Ranchers Committee. The Nebraska Farm Bureau would like to thank Senator Friesen and the committee for all your efforts to address, address the challenge of bringing affordable and reliable

broadband to rural Nebraska. We appreciate our representation on the Rural Broadband Task Force, as well as the opportunity to weigh in throughout this process. Nebraska Farm Bureau agrees with many findings and recommendations of the task force. Several specific legislative recommendations, including clarifying that Internet service is an approved use for accessing easements currently available for telephone and electric service, and eliminating any remaining restrictions on leasing dark fiber while maintaining the existing ban on public entities retailing Internet service, could be helpful places to start. We appreciate the task force emphasis on leveraging federal action on data and mapping to more accurately evaluate Internet service. Our organization has some experience trying to challenge federal broadband maps via crowdsourcing and it wasn't easy. We want to ensure the efforts of the task force, state Legislature, and Public Service Commission are not unnecessarily burdensome or duplicative, but we do support more comprehensive, accurate maps, which would make crowdsourcing a lot more practical. Aside from legislative recommendations, we support and will continue to explore the notion of creating broadband cooperatives in unserved areas. We believe there could be interest among Farm Bureau members and other rural residents in establishing cooperatives for the sole purpose of deploying broadband. Additionally, Next Generation precision agriculture tools will require a more reliable and high speed Internet connection. Given the remoteness of many high cost areas and the diversity of needs, we appreciate the task force acknowledging that a variety of technologies may be well suited for serving rural areas. We believe the Legislature and Public Service Commission should strive to be technology-neutral to address the cost and logistical problems facing rural broadband deployment in the most cost-effective ways. And finally, we hope to see the task force establish a subcommittee on agriculture, given how crucial broadband Internet is to the agriculture industry and, ultimately, the economic well-being of our state. Thank you for your time and allowing, allowing us the opportunity to weigh in. And I'd be happy to answer questions if I can.

FRIESEN: Thank you, Mr. Perdue. Any questions from the committee? We did have a corn grower--was a member of the task force, and I know--

JASON PERDUE: Correct.

FRIESEN: --we did talk a lot about-- on the task force, at least-that maybe it isn't going to be the residences that hook up in a mile,

but it might be places that hook up: bin sites, pivots. Those types of connections also, you know--

JASON PERDUE: Um-hum.

FRIESEN: --might make it more feasible for somebody to put a fiber system or a wireless system out there in place. So we did, we did try to focus a lot on agriculture because it is-- our focus was on those areas outside of the city or village limits. So--

JASON PERDUE: Um-hum.

FRIESEN: --I think we'll continue to focus on that, I hope, and we'll see to it that--

JASON PERDUE: We appreciate those efforts.

FRIESEN: --we'll get that done. So seeing no other questions, thank you for your testimony.

JASON PERDUE: Thank you, Senator.

FRIESEN: Welcome.

ROD WAGNER: Good, good afternoon, senators. I am Rod Wagner, spelled R-o-d W-a-g-n-e-r. I'm director of the Nebraska Library Commission. The Library Commission's state statutory mission is statewide promotion, development, and coordination of library services. In our work, we have -- we work with over 1,000 Nebraska libraries: public; college; university; school; special libraries. Of course, today we're here to focus on the smaller rural public libraries. Of Nebraska's 273 legally established libraries, over 80 percent fall under the task force's definition of rural, as being located in service areas with fewer than 2,500 people. Ninety-three percent of public libraries in Nebraska have a service area of less than 10,000 people. Nebraska public libraries provide over 2,800 public Internet computers that are used more than 1.6 million times per year, and 93 percent of Nebraska public libraries provide free Wi-Fi service. Mr. Toner and others have commented on library needs in regard to rural broadband and the lack of broadband, adequate broadband speeds. We found, in our data collected from libraries, that over 55 percent of Nebraska public libraries had Internet speeds of less than 24 megabit, megabits per second. One hundred two libraries reported speeds of less than 12 megabits per second-- not sufficient. When looking at libraries

serving areas of less than 2,500 people, the disparity is even greater, with 77 percent of libraries reporting speeds of less than 25 megabits per second, 59 percent under 12 megabits per second. It's also been noted that public libraries are often the only places in some of our smaller communities where people may have access to Internet service if they don't have it in their own residences or businesses. They use those, they use Internet access for a variety of purposes, maybe for filling out a job application, for a business purpose, for personal information, whatever. And it's also been mentioned that there are people who will use or access the library's Internet service from outside the building, in the parking areas beyond the library facility. An earlier testifier made some significant points about the survey that was done in Nebraska, asking Nebraska teachers about their assignment of homework. And it was, it's very revealing that the teachers agreed that all students need to have broadband Internet access either through their, their home or their library, but certainly beyond the school facility. And we have attached to your document of my written testimony is a page that highlights a national study that was done by the Common Sense nonprofit organization. With these goal, we applaud the work of the Rural Broadband, Task Force and the recommendations in the task force report. Libraries are a important institution in our communities that can significantly help toward improving broadband access throughout Nebraska. With these goals in mind, the Library Commission, as one example, has partnered with the Office of the CIO on a \$25,000, \$25,000 demonstration grant that provided for fixed-base wireless connections between public libraries and school buildings in Bancroft, Bayard, Genoa, Imperial, Verdigre, and Wymore, Wymore, to augment their existing Internet service. That project also provided the libraries with a couple of desktop computers for homework hotspots. Now the good news about that project is that it significantly increased the ability of those libraries to provide adequate broadband service for schoolchildren to come and use. Unfortunately, we only were able to include six communities out of hundreds of Nebraska communities. And even if we would have expanded that project, it still would not have reached a significant number across Nebraska. Importantly, though, it did demonstrate the -- this one particular approach to providing improved broadband services. Another point I wanted to mention was that, just yesterday, the FCC released its new E-Rate Category 2 order. It appears that libraries' Category 2 prediscount internal connection budgets, over the next five years, will be calculated at \$4.50 per square foot. This is important for our

rural communities because that's a significant increase over the current rate. But it would make available, over the next five years, approximately \$8.5 million dollars, with \$5.98 million of that amount provided through E-Rate support and the remainder coming through local sources. That, of course, is the maximum amount that would be available, over the next five years, for assisting public libraries through the E-Rate program. Importantly, too, in the coming year 2021, each applicant would be eligible for an additional 20 percent of their 2015-2020 Category 2 budget. The Library Commission's own five year plan outlines specific activities to ensure availability of high speed broadband for public libraries. These activities include identifying partnerships between public libraries and the public, private, and voluntary voluntary sectors to increase libraries' broadband speeds. The Library Commission also recently has stepped up its educational campaign to work with libraries to identify opportunities, mostly E-rate funding, to increase speeds, identify costs, and improve library infrastructure. The commission also recognizes the need for assistance to library directors, the technology, and the struggles facing small and rural libraries. Notable, and a reason why it's difficult for many libraries to become involved in the E-rate application process, is that in smaller communities, the library may have one full-time librarian or even less.

FRIESEN: Could you, could you wrap up?

ROD WAGNER: I will. I will-- quickly. I wanted to just mention the recommendations that came from the task force report. As I said, we're working to increase federal E-Rate participation. There was recommended in the report that four regional support technicians be hired to assist with, assist local libraries with E-Rate applications and, and work. And we also emphasized the opportunity for the Public Service Commission to implement a special construction matching program. And with that, I thank you, and I would be happy to respond to any questions you might have.

FRIESEN: Thank you, Mr. Wagner. Any questions from the committee? Senator Albrecht.

ALBRECHT: Thank you. Senator Friesen. OK, Mr. Wagner, just real quick. These libraries across the state of Nebraska, for you to get funding, you'd go where to fund those, those libraries? Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft ROD WAGNER: To fund those libraries? Well, we work with those libraries to help them apply for the federal E-Rate funds.

ALBRECHT: But do those, those libraries that are in the counties, do they go to the county board for funding? Would they ask them for funding?

ROD WAGNER: Most-- they do, but most Nebraska public libraries are funded by their town, their village, their city.

ALBRECHT: Um-hum.

ROD WAGNER: The great majority of their funds come through those, through that source.

ALBRECHT: Um-hum.

ROD WAGNER: There are libraries that also receive county funding.

ALBRECHT: Right.

ROD WAGNER: Some are specifically county public libraries.

ALBRECHT: Um-hum, um-hum.

ROD WAGNER: So there could be a combination of city and county funding.

ALBRECHT: Um-hum.

ROD WAGNER: There is a modest amount of state aid money that goes to public libraries.

ALBRECHT: OK. So, so that money you recognize, based on this information that you're putting together, that there is a problem, right?

ROD WAGNER: Oh, definitely so.

ALBRECHT: OK. So-- and you've been before this task force to let them know how you all feel about--

ROD WAGNER: Yes. We have had an opportunity to [INAUDIBLE] --

ALBRECHT: --because, I mean, they're pointing to libraries but, like you say, when there's one person that takes care of those libraries in

those small towns and cities, it's not very easy for them to be there in this wide open space that the children need to be before school or after school.

ROD WAGNER: Exactly.

ALBRECHT: And, and that's why I would say probably 90 percent of the people in this room don't have an issue with Internet in any way, shape, or form. But if they were invited out to these areas that don't have it, you know, I still say, what are we doing to our children and to those families who would like to have it but you don't get it? I mean, it's just -- it's very difficult. So I, so -- I so hope that everyone in the room understands what we're dealing with here and what you get to deal with, you know, throughout the whole state. It's tough. People need to, to use all the resources available and help them in any way they can with these applications, because we need to make certain that we cannot be Nebraska strong and grow our state without these children having the education they need. And to, to lose out on a couple different, you know, grades and then you're struggling to bring it back, it's, it's not right. It's not right for the teachers to have to deal with it, and it's not right with the families. And the children are the ones that get hurt, hurt the most. So thanks for what you do and--

ROD WAGNER: Absolutely.

ALBRECHT: --appreciate it.

ROD WAGNER: So-- and that's why the work of the task force is so important to publicize and educate and--

ALBRECHT: Um-hum.

ROD WAGNER: -- and help find solutions to those things.

ALBRECHT: Um-hum, appreciate it.

ROD WAGNER: Thank you.

ALBRECHT: Thank you.

FRIESEN: Thank you, Senator Albrecht. Seeing no other questions, thank you for your testimony.

FRIESEN: Welcome.

SCOTT CHILDERS: Thank you, Senators. My name is Scott Childers, S-c-o-t-t C-h-i-l-d-e-r-s. I'm the executive director of the Southeast Library System. We're a nonprofit group that helps train and provide support to libraries in the southeast corner of our state, generally with practical issues and/or library governance, I will not, in depth, in the, in respect to the time given, I will not rehash things that Ron has already said or have already been brought up by other testimony or lines of questioning, merely just saying that I do not dispute any of that testimony. I will focus specifically on one recommendation of the task force, and that is to provide four regional technical support specialists to help public libraries handle the technical parts of providing broadband to their community. As mentioned multiple times today, many places don't have it in their homes. The library is one of the sources they have. But oftentimes, as also mentioned, the librarians are focusing on running a library, providing literacy training for the children, handling the reports necessary by their city, county, township, whoever their funding group is.

ALBRECHT: Um-hum.

SCOTT CHILDERS: And they are not trained to be technical support people. And also, in rural areas, sometimes finding other people to provide that specialized assistance to install the networking equipment, or to maintain that, or to know where to even begin looking for a source of broadband, is difficult. Commercial services available in many of our rural communities, smaller than your first class cities, are often sporadic, inconsistent, or just not available nearby. As a line of questioning with Rod mentioned, these libraries are supported by city funds, county funds, township funds. That money is not enough to-- for every single library to hold their own computer technician. In some of these places, the city or village do not even have someone on payroll. Asking the state to find some method of providing regional support would help maintain access in these smaller communities, while still not affecting the tax levies of our smallest and struggling communities. Again, most of what I wanted to say has already been said, so I'll not waste your time, and I'll stand-- open myself up for questions.

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft FRIESEN: Thank you, Mr. Childers. Any questions from the committee? Seeing none--

SCOTT CHILDERS: Thank you for your time.

FRIESEN: Thank you. Welcome.

LOLA SEITZ: Thank you. Good afternoon. My name is Lola Seitz, and that's spelled L-o-l-a S-e-i-t-z, and I'm the library director at the Pawnee City Public Library in Pawnee City, Nebraska. I'm here today to represent the interests of Nebraska's rural citizens and to speak in favor of the homework gap recommendations found within the Rural Broadband Task Force's report. The Pawnee City Public Library is one of two public libraries in Pawnee County. Our library was built in 2011. Pawnee City Library serves Pawnee City residents, as well as Pawnee County. Pawnee City does have a population of 824, and Pawnee County of 2,632. Pawnee County is a very rural area, and our average household income is below the state average. As of 2016, 29.4 percent of our county residents were living in poverty. The Pawnee City Library is in the Southeast Library System. I'm aware that many rural libraries are challenged to provide the community's Internet needs to accommodate emerging, emerging technologies. The Pawnee City Library is unique in regard with the success related to broadband Internet work infrastructure. I think that the library-- Pawnee City Public Library-- is a model for all rural public libraries in Nebraska; that's what they could become. We have a reliable Internet provider, and we are able to offer 100 megabytes per second of Internet service. This speed has quadrupled in the last three years. We pay about \$50 per month for this service after E-Rate, which is the federal universal service program for schools and libraries. E-Rate saves us \$180 per month, freeing up resources to buy additional technology equipment for our library. Our patrons use the Internet for many activities, including: research; filing for government programs; submitting job applications; obtaining hunting licenses; on-line higher education courses; and students completing their homework. Our pub, our 11 public computers are busy most of the time. In 2017, the U.S. Census Bureau Community Survey reports that almost 30 percent of our households in Pawnee County do not have Internet, an Internet subscription. Our Pawnee City high school students do receive a school-issued Chromebook and come to the library after school to do their homework. Due to the wireless network, the students are able to sit anywhere in the library or outside, after hours, to complete their homework. Our story is not typical for a majority of the libraries in

Nebraska rural communities. Out of the 194 of public libraries that serve a legal service area of under 2,500 persons, Pawnee City Library is one of three that provide a speed of 100 megabytes per second or more. To say this another way, three-quarters of our Nebraska rural libraries have Internet speeds that are lower than what the FCC defines as broadband for people's homes. I'd just like to highlight a few of the homework gap recommendations found on pages 25-29 of the Rural Broadband Task Force Report. First, I do echo the need for the Nebraska Library Commission to increase the number of public libraries applying for E-Rate support in the fiscal year 2020 and beyond. I'm very fortunate that Pawnee City supports our library with 1.5 full-time employees, and that allows me the time to file our annual E-Rate forms and perform other day-to-day tasks. While I realize that it is the local responsibility to provide adequate library staffing, the State Library Commission could assist by providing more E-Rate applicant, application supports or perhaps form a statewide filing consortium similar to what the Network Nebraska has done for the school districts. It was the expectation of our local library board and the city office that the library continue to participate in the E-Rate when I assume the director in 2011. As I mentioned earlier, our library receives an 80 percent discount on our Internet costs and the infrastructure improvements, as a participant in the E-Rate program. Secondly, I do strongly support the concept for regional technicians to assist libraries in technology support, upgrades, digital literacy training, and E-Rate filing, starting in the fiscal year 2020. Positioning these technicians within the regional library systems would bring much needed mobile support to all of the libraries and provide trusted source of technology guidance for both rural and urban library staff. It would also assist library directors in their technology decisions to make internal connection equipment more consistent across the state and more efficient to support. Thirdly, I am intrigued by the prospect that the Nebraska Public Service Commission, implementing the E-Rate special construction matching fund program for libraries and schools. A majority of our public libraries located in villages and towns are not connected by fiber. This incentive program would increase the discount rate for special construction by 20 percent or-- so that smaller communities could use their public libraries as anchor tenants for new fiber, allowing the fiber provider to pick up new customers along the way. While the Pawnee City Library's coaxial Internet speeds are respectable, respectable, putting fiber is something that we would consider in the future. Let's face it, public libraries ought to be at least 100

megabytes [SIC] per second in the near future or the alternative to face obsolescence in the millennial generation and beyond. In summary, I believe that the Pawnee City Public Library is a successful model of a rural library that has been able to provide broadband speeds to its community that matches many of the true urban counterparts. Key factors in our except, success include that we have a new community library, and we have been enrolled in the E-Rate program for over 10 years-- a decade, sorry. We are also fortunate to have a technology support technician that is in our community and has an excellent working relationship with me. Because our library is open 40 hours per week and we have one and a half full-time employees, that provides me the time to focus on four-- reports like filing my on E-Rate and identifying the technology issues in my library to help meet the patrons' needs in the community. Those patrons include: school-age children who need a safe place to complete their homework assignments and complete their school projects; low-income families who cannot afford a computer at home, or an Internet either, to participate in the digital economy; and the elderly, of course, who just need a little hand-holding when doing their social media. I do agree, also, with the testimony presented today by Rod Wagner and Scott Childers given earlier. I do thank you for your time this afternoon, and I would happy to respond to any questions.

FRIESEN: Thank you for your testimony. Any questions from the committee? Seeing none--

LOLA SEITZ: Thank you.

FRIESEN: --thank you.

MICHELLE WEBER: Good afternoon. My name is Michelle Weber, M-i-c-h-e-l-l-e W-e-b-e-r. I'm testifying today on behalf of the Nebraska Advocacy Group, a group of 11 Nebraska telecommunications providers that are providing customers with telephone and broadband service throughout the state. We appreciate the work of the task force and the Legislature's continued interest in accelerating broadband deployment. The one issue that we'd like to specifically weigh in on today is that of leasing publicly owned fiber. The task force has recommended exploration of ways to make it easier for public entities to lease their dark fiber. We believe that this could be accomplished without disrupting the sound principles outlined in current law which are designed to make sure public entities do not subsidize telecommunications, utilizing other resources, electric rates or

otherwise, and to make sure that public entities do not engage in pricing, which undercuts an otherwise competitively neutral playing field. One proposal for this committee to consider is to have the Public Service Commission streamline the rules for public entities leasing fiber. Under this proposal, the commission would develop a safe harbor range of rates for the leasing of public fiber, and if the parties desiring to enter into a lease of public fiber apply, utilizing rates within that range of predetermined market rates, then no hearing would be required unless some party protested. The Public Service Commission could offer a template application that could be used to file with the commission to initiate the process. This would achieve the task force goal of easing and accelerating the process for leasing public fiber. At the same time, it still provides some oversight by the commission, which is consistent with the longstanding policy of having Public Service Commission overseeing telecommunications and ensuring that competitively level playing field for private sector telecommunication and precluding cross subsidization of costs by public entities. Thank you.

FRIESEN: Thank you, Ms. Weber. Any questions from the committee? Seeing none--

MICHELLE WEBER: Thank you.

FRIESEN: -- thank you for your testimony.

MARY RIDDER: Good afternoon.

FRIESEN: Welcome, Commissioner Ridder.

MARY RIDDER: Good afternoon, Chairman Friesen. Members of the Transportation and Telecommunications Committee, my name is Mary Ridder, R-i-d-d-e-r. I represent the 5th District and am the chair of the Nebraska Public Service Commission. I'm also-- I also represent the commission on the Rural Broadband Task Force, so I am here today to provide a brief update to the committee on the commission's activities with respect to broadband since the task force report was released. First, you may recall that LB994, which set the task force in motion, also included language allowing the commission to promulgate rules and regulations with respect to conducting a reverse auction. The commission has been already working through that process. The commission held a public hearing May 7th on its draft rules and held a subsequent workshop in, on August 6. We've since refined the

draft rules and regulations and released them for comment. We're expecting to receive those comments from interested parties by this Friday, and we anticipate completing the rule and reg process in 2020. In 2018, the commission approved a new contribution methodology intended to stabilize the Universal Service Fund, and set as a target a fund size between \$46 million and \$54 million annually. This represents an increase to the size of the fund over recent years, and will return the fund to its prior size. That new contribution methodology was implemented starting in April, or April 2, 2019, and I can report we have seen a significant increase in remittances to the fund, and that annual remittance, remittances into the fund should fall within that target; so it's working. That means additional supports available for the programs that support broadband build-out in rural areas. One of those programs, NUSF-108, is the way the commission provides support to rate of return carriers or the typically smaller rural incumbent carriers. This program is designed to incentivize carriers to build 25/3-capable networks in areas where it's lacking today or, if they've already built those networks, to assist them in recovering these costs. In addition to incentivizing build-out, the commission wanted to enhance accountability, as well, by only providing build-out support once a project has been worked on. A second program, NUSF-99, provides support to price cap carriers or the larger, multistate, incumbent carriers that include CenturyLink, Windstream, and Frontier. For a few years now, these carriers have had the majority of their support provided as grant-like distributions, where projects have to be approved by the commission and supports provided once work has been completed. While this methodology has worked well, the commission has recognized that some updates need to be made to this program, and has recently opened up the NUSF-99 program for comment on several subjects, including, but not limited to: whether to increase the 10/1 minimum service standards to 25/3; whether alternative technology should be considered for support; and how the commission should incorporate federal support. Finally, one of the recommendations of the much-talked-about-today digital inclusion, homework gap, and leveraging E-Rate funding subcommittee of the task force, was to implement a program to leverage the federal E-Rate special construction funding, where state funds could be matched, dollar for dollar, by the federal Universal Service Fund, to bring fiber facilities to libraries and schools that lack them today. The commission will soon be opening a docket to initiate such a program, and we look forward to working through that process. I've read a draft of that, so we're just about ready to release the beginning of that

project. With that, I thank you for your time. I'm happy to try and answer questions you may have.

FRIESEN: Thank you, Commissioner Ridder. Any questions from the committee? Senator Albrecht.

ALBRECHT: OK, I have to ask you this. I appreciate you being here and your testifying. I had asked the first gentleman if he could help me understand a few things. And you might have just said whatever you said, but you need to help me understand what you just said. OK, so the committee recommended, on page 5 of their recommendations, to encourage the "Public Service Commission to continue to investigate a state-run reverse auction as a mechanism to spur broadband build out in rural areas."

MARY RIDDER: Yes.

ALBRECHT: And then on October-- or actually, excuse me, on March 12, 2019, the Nebraska Public Service Commission began a process to adopt the reverse auction and wireless registry rules. "The process of developing the rules and rates is expected to take approximately one year." So we'll hear about that in 2020?

MARY RIDDER: Yes. That is this process that we're working on; it's rules and regs-- 202, I think, is the number. And we're working through that process where we release comments, we get comments back, etc., so yes, it's ongoing.

ALBRECHT: And who, who are you getting these comments back from?

MARY RIDDER: The comments would come back from carriers. They can come from anyone but, typically, carriers.

ALBRECHT: OK. And we'll be able to take a look at some of those comments, right?

MARY RIDDER: Um-hum.

ALBRECHT: OK. So again, what is meant by state-run reverse auction?

MARY RIDDER: I think Ed did a good job on that.

ALBRECHT: Do you think you could?

Transcript Prepared by Clerk of the Legislature Transcribers Office Transportation and Telecommunications Committee December 4, 2019 Rough Draft MARY RIDDER: It is the opposite of a-- what you perceive of as an auction. An auction at my bull sale, you start here and you go up.

ALBRECHT: Um-hum.

MARY RIDDER: At the FCC-run reverse auction, the price was set whatever, wherever they started that.

ALBRECHT: Um-hum.

MARY RIDDER: And then the companies that were willing to bid at that price did. And then they dropped it, and the companies that were willing to bid at that price did, until you got to where there was one company left. That's--

ALBRECHT: Hmm.

MARY RIDDER: And a state-run would be, we would run it rather than the FCC would run it.

ALBRECHT: But do you think anybody is hurt in doing that? And I'm talking business-wise and/or negatively affect a provider that's been there or-- I mean, help me understand.

MARY RIDDER: I understand your questioning and why that concern. And I think a fair answer to that is, it depends how you write the rules for the reverse auction--

ALBRECHT: Um-hum.

MARY RIDDER: -- and what you're looking for.

ALBRECHT: Um-hum.

MARY RIDDER: And you can shape that how you want it. If you're, if you're, if you say you're technology neutral--

ALBRECHT: Um-hum.

MARY RIDDER: -- then the less expensive technology may win.

ALBRECHT: Um-hum.

MARY RIDDER: So it depends how you shape that --

MARY RIDDER: -- how you write it.

ALBRECHT: And switching gears to this, the libraries.

MARY RIDDER: Um-hum.

ALBRECHT: How is the Public Service Commission-- what, what is your role to help them out? If they don't have the funding available, is there a grant process for them to use? Or should we check with Jason Perdue, in case he's related to Sonny Perdue, that we need to take care of something at the federal level? Or-- I'd just like to--

MARY RIDDER: I, I'm, I'm a recent learner about this E-Rate that the-we met with the Library Commission and the Office of the Chief Information Officer and the commission, and had to sit down, and learned about this program and the needs of this program and how, if we became involved, which we're going to open up a docket to investigate that--

ALBRECHT: Um-hum.

MARY RIDDER: --if we became involved, we would help fund another percentage of the cost of those construction, which is I guess, 2-it's Schedule 2, I think they call it, of E-Rate. So the federal puts money in. If we put money in, then the library put money in, we would really help bring that bill down for construction costs of connecting a library to a good Internet or broadband source.

ALBRECHT: OK, appreciate your time. Thank you.

MARY RIDDER: You're welcome.

FRIESEN: Thank you, Senator Albrecht. Any other questions from the committee? Seeing none, thank you for all the work you've done on the task force, too; appreciate that.

MARY RIDDER: You're welcome. I would, I would like to just make a quick comment about the task force. I echo what Ed said and you said about-it was a very motivated group of people. It was a good, it was a good representation of people throughout the state: businesses; industry; personal; etcetera. And I, I think, if we can now take that and not leave it on a shelf, I think we'll do good work.

ERIC CARSTENSON: Good long afternoon, senators. My name is Eric Carstenson. I'm the president of the Nebraska Telecommunications Association. I'm registered as their lobbyist, and I'm here today to present our comments. We are a traders, trade association that represents the majority of local exchange telephone companies in Nebraska. You've heard it over and over-- undeniably broadband is important in Nebraska. That's why, over the last few years, we're investing millions and millions of dollars every year to make sure that farms and ranches have 25/3 or better broadband in their locations. And that investment is happening year after year after year. Your role in creating public policy that makes that happen is critical. And we're at an important juncture. I just, I'm always kind of awed, when I get in front of you for times like this, at how important our decisions are right now. Today Nebraska has carriers of last resort. This obligation only applies, though, to voice service, and policy that Nebraska develops has got to be developed in conjunction with what the FCC is doing. Regulated companies are subject to the laws that you create and what you direct the Public Service Commission to do in terms of regulation. Many of our competitors are not subject to those kinds of regulations. You can tell us what to do, but you can't tell everybody in the competitive field what to do. So as a public policy matter, your challenge is to develop incentives that will incent companies to deploy in noneconomically viable areas. And to do that, it's a balancing act. In order to meaningfully incent companies to develop or to deploy in very rural parts of Nebraska, we've got to succeed at creating a support structure that is reasonably stable and predictable, because when a company deploys a lot of infrastructure, they've got to have a reasonable expectation that the cost of that long-term invests, investment and the daily cost to operate can be recovered. Nebraska Universal Service Fund does that. It satisfies that role, and it needs to be supported and enhanced. The program allows the limited amount of funds that are available to achieve a regulated and a reasonable return on investment while maintaining strict accountability that the eligible telecommunications companies are required to have. I think that dispersing the limited amount of NUSF on noneconomic, nonaccountable experiments is undesirable, and it disrupts that competitive landscape. And it delays the opportunity to truly serve the rural areas. Another point on the task force, the NTA shares in your frustration with mapping. The FCC has created a new mapping

policy and, rather than developing a duplicative and burdensome process just for Nebraska, we think you should support what the FCC is doing. They are uniquely in a position not only to compel us, which you, of course, could do, but to compel all the other competitors to provide information, as well. We get into a whole data question, and it's tough to compare apples and apples, and we see that here. When we look at comparing census blocks to exchange-- what I have talked about, our companies, our exchange boundaries -- there an error creeps in when we compare the data. For example, if you look at the task force report, Appendix 7 says that there are 92,181 square miles in rural census blocks in Nebraska. I guess we annexed part of Wyoming because the Nebraska Blue Book shows that we have 77,358-- I was trying to be funny [LAUGHTER]. The error-- here's where I think the error probably comes from. Where we compare census blocks with exchange territories, there are probably overlaps. And so the same census block, or the same exchange territory probably crosses into multiple company, companies, and it gets counted twice. I had some -- I asked our companies about this, and some of them were misrepresented by about 25 percent. So it's-- that's where we run into data errors using the census blocks. Another point: when the task force dealt with technology -- obviously we embrace technology and the advantages it brings -- but unfortunately, technology itself will not be a panacea. Nebraska will benefit by pushing fiber deeper and deeper into the network. And when we evaluate it, it becomes a balancing act between what we can do today and what we can do on a long-term, 20-year payback basis. The best final solution is a strong, robust fiber network. Now, undeniably, there would be enter, instances where we need to evaluate a short term case, but we need to create an environment where we can buy it, where we can evaluate these on a long-term, 20-year payback basis. A couple other final points: When we're managing the critical 911 infrastructure, which I know you heard a lot about today, we need the Public Service Commission to continue to have their oversight on, on that vital asset. Another point: In the very rural areas, the need to get more broadband deployment still goes back to the economics. It likely will only support, in very rural areas in Nebraska, one network. We think that one network should be, continue to be -- should be and continue to be privately owned. And finally, we support, strongly, the conclusion that the broadband task force said that this Legislature developed good public policy, years ago, that limits government's role in the provision of

telecommunications, and that should continue, going forward. Senator, that concludes my comments.

FRIESEN: Thank you, Mr. Carstenson. Any questions from the committee? Senator Hilgers.

HILGERS: Just one. Thank you, Mr. Carstenson. Well, can you tell me what you think the FCC's act, FCC action will be on the mapping, what the practical impact of that will be?

ERIC CARSTENSON: Well, they've already required the companies that are receiving Connect America funding to report through a hub. And I think, as they say-- it's called the hub. And I think, as they continue to advance other types of federal support, they'll continue to require other companies to do that, too. So the regulated companies will be thoroughly reported. That'll give us good data there. They've got a tall mountain to climb to compel the other companies to also report. But I know that's being talked about.

HILGERS: All right; thank you.

ERIC CARSTENSON: So we're going to obviously be reporting.

HILGERS: Thank you.

FRIESEN: Thank you, Senator Hilgers. Seeing no other questions, thank you for your testimony.

JULIA PLUCKER: Good afternoon. I have a cough; bear with me. My name is Julia Plucker, J-u-l-i-a P-l-u-c-k-e-r. I'm the executive director of the Nebraska Cable Communications Association. I have a few paragraphs about who we are and how great we are, but I'll just bullet-point those. The cable industry has 66 million customers and are investing over \$290 billion dollars in capital infrastructure in the last 20 years. We're currently offering 1 gigabit in Nebraska. Were developing t0-gig technology, based on consumer demand. All of our members offer low-cost Internet plans that meet or exceed the FCC's definition of high speed broadband. I could go on, but I'm going to get to our brief comments about the final report from the broadband task force. First, we appreciate the wisdom of the task force to prioritize unserved areas first. We've made significant investments in our network to improve the customers' experience, without any subsidies from federal or state government. And given that government sort, resources are finite, any state-sponsored effort to expand

access to broadband should ensure that everyone gets firsts before anyone gets seconds. Second, we appreciate that the report affirms that government-owned networks are not a viable solution for expanding broadband in Nebraska. Repealing the current law regarding public entry would probably, would threaten private investment in the state and be a risky financial investment for taxpayers. Third-- excuse me-third, if the Legislature debates a state broadband grant program, the grant should have a transparent application process, be open to all providers, and technology neutral, include a robust challenge process to prevent overbuilding of existing networks. It should also provide adequate accountability to ensure that the grant funds are used for their intended purpose. Finally, broadband maps are a tool to identify areas that currently lack, lack broadband service. And we recognize that the current FCC Form 477 data has its shortcomings. This is an answer to Senator Hilger's question. As recently as November 20th, there's been some progress, in Washington, D.C., to reform the collection process; that's H.R.4229. It requires more granular service information, provides penalties for misreporting information, and I'd be happy to provide any other information I have off-line. We recommend allowing the FCC time to implement that new data collection process before considering a creation of a state specific map for Nebraska. Thank you, again, for the efforts of the task force and your continuing efforts on this issue. Thank you.

FRIESEN: Thank you, Ms. Plucker. Any questions from the committee?

JULIA PLUCKER: Thank you.

FRIESEN: Seeing none, thank you.

TRENT FELLERS: Chairman Friesen and members of the Transportation and Telecommunications Committee, my name is Trent Fellers, T-r-e-n-t F-e-l-l-e-r-s, and I'm here representing Windstream Communications. We appreciate the opportunity to testify today in front of the rural, on the Rural Broadband Task Force report. Thank you to the members of task force for the time that they spent in putting together the report. Windstream nationally is a rural broadband provider. Those of us, those are the areas that we want to serve. The markets we serve are generally small towns and their surrounding rural areas. In Nebraska, it's no different. Other than Lincoln, our service territory is southeastern Nebraska's small towns and rural areas. While the committee receives this report today, [INAUDIBLE] receives from its report today, it's important to note that the speed and coverage data

in the report is from FCC Form 477 data dated June of 2017. Windstream, in that time, has made significant investment toward deployment of high speed broadband to Nebraska's communities we serve, and we plan to do more in the coming years. Since 2017, Windstream has invested more than \$46 million in broadband projects in Nebraska. This includes fixed wireless projects in rural areas, in addition to the broadband projects that Windstream has invested \$27 million in, to improve our middle mile network and service delivery to customers. If you'd like to see some of these investments, I'd be happy to arrange a tour for you or your staff at our 1440 M facility here in Lincoln, Windstream is committed to serving our customers in rural Nebraska. In 2020, Windstream is planning to increase speeds to over 60,000 Nebraska households. We also plan to devote, deploy 100 fixed wireless towers to serve over 6,000 Nebraska households, and [INAUDIBLE] communities in southeastern Nebraska. The quote, the report calls out the company I represent by name. Windstream believes the report relies on old data and information about Windstream's operations. In the past two years, Windstream has hired a new president of our Kinetic division, charged with making significant changes to upgrade speed for our customers, and providing better customer service experience. Under Jeff Small's leadership, the Kinetic Business unit has been given the task to increase speeds to our entire footprint. Of the 267,000 households that we serve, as of today, 86 percent of those will qualify for speeds of 10 megabits per second-plus, 68 percent of households above 25 megabits per second. This number has increased every year since 2017. To give you an idea of the upgrades in speed we are making in Nebraska, I'm going to submit a chart with my testimony today. Windstream is committed to serving those in rural areas with broadband, either through fixed wireless, copper-fed DSL, or fiber connection. However, it takes time and resources to reach the last mile, and sometimes the business case for those customers is challenging. We are here and, and willing to work with the members of this committee to draft a policy that connects Nebraskans to high speed broadband. Windstream is growing and expanding, and committed to serve our customers in Nebraska. Thank you for your time, and I'm available to answer any questions.

FRIESEN: Thank you, Mr. Fellers. Any questions? Senator Bostelman.

BOSTELMAN: Thank you, Mr. Chairman. And Mr. Fellers, thank you for coming and testifying. This isn't directed to you; it's directed at Windstream.

BOSTELMAN: I take great exception to what you just said. I live 32 miles from here. I'm a Windstream customer. Windsstream refuses to connect me-- refuses. We are not covered in the census block. It says we're 100 percent covered; we're not. This is what we're trying to figure out--

TRENT FELLERS: Right.

BOSTELMAN: --as a task force. We have people out in Nebraska, across the state, who carriers are saying they're providing the coverage, when they're not. We are trying to find a way, working together to try to find a way to get that connectivity to as many people that we can and identify those areas that are not being served. I don't mean to be personal to you or, or that--

TRENT FELLERS: Sure, I understand.

BOSTELMAN: --but I do take exception. In a sense, when I, when we have companies come in and say-- and they do good jobs, you know, for a lot of areas, but they're not doing everybody. And they're, and they're, and they're picking and choosing. And that's what we're trying to work on. That's what we're trying to deal. And I hope that we can come with Windstream and come to some solutions to the areas that we have-- or other companies. What are those solutions? How do we help those connectivities, get, get the connectivity out to the places like where I live?

TRENT FELLERS: Sure.

BOSTELMAN: We don't have to go 32 miles from here. We can go even closer. We go to Raymond, and I believe they're in the coverage, too. They're not connected either. So the challenge we have, what we're talking about is, some people are getting services, some people are getting the upgrades, but not everybody is. We're leaving people on the side of the road, if you will, knowingly, because it's a business decision. OK, now the business decision, what is it that we need to do, as a policy or otherwise, to provide Windstream and other companies the ability to make those final connections? And that's where it's at. And again, it's not-- I, I, I, I feel this personally. We deal with this personally every day. And so it's it's one of those things that I take to heart very hard. And on the task force, I took the task force to it very hard, as well. I think we worked on it

extremely did, extremely well and hard. That's what we're trying to deal with. And I appreciate what everybody, what the companies are doing. But it's not enough. What is it that it's going to take? And how can we make that happen? Thank you for coming in. Thank you for your testimony. But, but I'm one of those, and the, and everybody that lives around me are the same way. We're being refused that anything is going to happen because of cost.

TRENT FELLERS: Right.

BOSTELMAN: I, I hear that so often. So part of it is, how do we fix it?

TRENT FELLERS: So and I'm familiar with your, your area and the "underservice" there. Actually, your area is one of the areas in 2020 that we're going to be doing service to. We made that decision last week to start moving forward with that project. We're committed to being a rural broadband provider and getting out there. And part of that takes time. Part of that takes money. I mean, we're, we're investing significantly in Nebraska to increase those speeds. I'd be happy to talk about the project in your area off, off-line, after this hearing. But I know the area that you live in is, is one of the areas that's underserved, and that's an area that we want to get to.

BOSTELMAN: And again, I apologize. This isn't directed to you, and it isn't--

TRENT FELLERS: I understand, yep.

BOSTELMAN: -- and it isn't mean-spirited. It's just that--

TRENT FELLERS: You've always been good with me, so I--

BOSTELMAN: I just--

TRENT FELLERS: -- I appreciate that.

BOSTELMAN: I just-- you know, it's frustrating, and I think we hear that across the state. It's frustrating. We heard it earlier from the, from the gentleman out in Banner County. We're hearing it from our libraries. You know, we've got to have solutions. We've got to figure this out. We've got to work with you, with a, with a, with whoever it

is we need to figure this out to get the connectivity brought out to the areas we do. What is the answers? I don't have them right now.

TRENT FELLERS: Right.

BOSTELMAN: We're trying to figure them out, so thank you very much.

TRENT FELLERS: Yeah, and I appreciate your comments. We share your frustration, and that's why we're investing in our network to build out to areas like your home, and are continuing to do that. Just, you know, there, there are resources that are finite in our company, but we have plans to get those speeds upgraded in the next coming years and then continuing to do that, leveraging, you know, the Universal Service Fund grants and investing our own money.

BOSTELMAN: Thank you.

TRENT FELLERS: Yes.

FRIESEN: Thank you, Senator Bostelman. Any other questions from the committee? A couple of years ago-- or was it just last year that Windstream announced that they were going to do that project in southeast Nebraska, across the south? it was before you were with the company, I believe.

TRENT FELLERS: Right, yeah.

FRIESEN: Could you have any idea how far you are on that project and when the completion date might be?

TRENT FELLERS: You know, I'll get that information and get it back to you. I don't have it in front of me right now.

FRIESEN: OK.

TRENT FELLERS: But I can get it to you. Yeah.

FRIESEN: Yeah. I mean, I'd just, I'd like to know kind of how that's going, because it was a, it was a big press release about getting it done. And I thought the time frame was in that early 2020 time frame. I'm just curious, I guess, as to how it's going.

TRENT FELLERS: Yeah. I'll get an update and send it to your office.

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FRIESEN: OK. Thank you. Seeing no other questions, thank you for your testimony.

LYNN REX: Senator Friesen, members of the committee, my name is Lynn Rex, L-y-n-n R-e-x, representing the League of Nebraska Municipalities. And first, I do understand that the task force mission was to focus on broadband, and the lack thereof, outside of incorporated cities and villages. My point in testifying today is to underscore the fact that there are municipalities across the state, in-- obviously, incorporated cities and villages that do not have broadband. And that's underscored by the testimony of those from libraries, from the libraries today. And I can tell you that it's not just some of the rural libraries. I mean, it's what-- it depends how you want to clatter, to classify what constitutes rural. If you're looking at, in areas with a population less than 2,500, of the 529 cities and villages in the state, you only have 32 with a population above 5,000. That's 30 first-class cities, Lincoln and Omaha. You have 380 villages, population 100 to 800, and many of those do not have broadband. And so even if they had a full-time librarian, they don't have broadband. And I just wanted to underscore, on a personal note, some of the testimony from librarians, because I was at an opening of the, of the Ralston library. This is just a couple of years ago. And it's still happening today. After it was done and closed, I looked out and it was just packed full of cars in the, in the parking lot. So I asked the mayor: Gosh, this is great, but where are all, where are these folks? He said: Oh, those-- if you look, there's a student in every ;one there's a kid in every car. And they're there, if they're lucky, with a Chromebook or something else, trying to access the Internet. That is unacceptable. But at least they had broadband in Ralston. Lots of municipalities have nothing. So it wouldn't matter, even if we didn't have to deal with the lids and the levee restrictions that we have. And I won't bore you with all of that because Senator Friesen is tired of hearing about that. Lids and levee restrictions, we can talk about that, Senator, in terms of why we have reduced librarians in place after place. But right now, I think it's just so important that this group also understands, as a committee, we appreciate what you've done in addressing issues that apply with outside of incorporated cities and villages. But please don't underestimate the incredible work that needs to be done to assist villages, in particular, but also some of our smaller second-class cities and even some of the areas, the first-class cities across the state. And just underscoring, Senator Bostelman, what you said, too,

there's a point where everything just can't be a business decision. If a business decision was whether or not everybody in the state ought to have electricity, there's some areas in the state that, to this day, may not have electricity. So the decisions were made decades ago to make sure that that happened. I think this is your mission, to make sure that this, also, is a critical service. And municipalities, I mean you can't retain and attract businesses without having broadband in this day and age; you just can't. So what we're talking about: affordable housing, a huge issue, a very important issue; talking about work force housing, all these other things, it all connects to whether or not you're able to compete. And you can't compete without broadband. Thanks very much for your time today, and I'm happy to answer any questions that you might have.

FRIESEN: Thank you, Ms. Rex. I know I was rather surprised, too, at how many municipalities we found out, when we held some hearings out in the rural part of the state, that did not have good service. So I, I echo that concern. The task force focus was outside those limits. But it's going to be interesting to see, as we get fiber into the rural areas, if they can pick up those-- I mean, that the-- it makes some more of a business case to pick up those communities on their way. So we'll see if that's happening as we get this system built. But I do share your concern, and our community needs to have access to broadband.

LYNN REX: And again, I think a lot of this goes back to decisions made decades before, by your predecessors, regarding the use of dark fiber in the state. And we may not be here at this hearing today if those decisions have been made differently. So thank-- really, really appreciate all the time and effort that you put into this. Thank you.

FRIESEN: Thank you. Any others who wish to testify? Seeing none, I think we will close the hearing on LR166.