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Transportation and Telecommunications Committee  
October 15, 2010

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[LR443]

The Committee on Transportation and Telecommunications met at 2:30 p.m., Friday, October 15, 2010, in Room 1113 of the State Capitol, Lincoln, Nebraska, for the purpose of conducting a public hearing on LR443. Senators present: Deb Fischer, Chairperson; Arnie Stuthman, Vice Chairperson; Kathy Campbell; Galen Hadley; and LeRoy Loudon. Senators absent: Tim Gay; Charlie Janssen; Scott Lautenbaugh. []

SENATOR FISCHER: Good afternoon and welcome to the Transportation and Telecommunications Committee. My name is Deb Fischer, I am the senator from Valentine, Nebraska, and I am Chair of the committee. I'd like to introduce you to the members who are with us today. On my far right is Senator Kathy Campbell, she is from Lincoln. Next we have Senator Arnie Stuthman from Columbus. Senator Stuthman is the Vice Chair of the committee. On my immediate right I have our committee counsel, Mr. Dustin Vaughan. On my left is our committee clerk, Miss Laurie Vollertsen. Next we have the talker in the group, that would be Senator Galen Hadley from Kearney, Nebraska, with the red shirt and the Loper tie. And on the end we have Senator LeRoy Loudon from Ellsworth. So welcome to our interim hearing today. I would like to go over some housekeeping details with you to begin with. I know all of you remember all of my rules in the committee, but we'll just go over them anyway. We will be listening to the interim study resolutions, we just have one today, it is LR443. Those wishing to testify will need to fill out the form that is on the desk and hand that in to our committee clerk before you come forward to testify. At the beginning of your testimony please state your name, and if you would, please spell it for the record. I would ask that you keep your testimony concise, we will be using the lights today. We'll have a five-minute testimony. If you don't want to testify, but you do have information for the committee, please feel free to hand that in to us at any time. You need to have it in today if you would like it part of the record, but my office is always appreciative of any information that you can get to us on any issues, so please give us that information at any time. And with that I would ask that you please turn off all your cell phones. In the Transportation and

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Telecommunications Committee we do not allow cell phone use and that includes texting unless you can hide around the pillar over there as I see someone has. And then they usually try to text back there and they don't think I can see them. So with that, I will open the hearing on LR443. I would invite Commissioner Jerry Vap from the Public Service Commission to come forward please. Good afternoon, Commissioner. [LR443]

JERRY VAP: (Exhibits 3 and 4) Good afternoon, Senator Fischer, and members of the Transportation and Telecommunications Committee. And I am Jerry Vap, that is spelled J-e-r-r-y V-a-p. I'm chairman of the Nebraska Public Service Commission and I represent the 5th District. I'm here today to provide some information to the committee for its record relative to LR443. On March 16, 2010, the Federal Communications Commission released its National Broadband Plan which was designed to establish a national framework for the deployment of broadband services. After the release of the plan, the FCC began opening dockets requesting comments on more specific reform proposals. Recently the NPSC filed comments in response to the FCC's proposals on universal service reform. In our comments we asked the FCC to reconsider the disparity between the rural and urban broadband deployment goals, 100 megabits per second in 100 million households versus 4 megabits per second in rural areas supported by the universal service. We also expressed our concern about the absence of a state role to carry out traditional service quality and consumer protection in the broadband-centered environment. As the FCC releases more detailed ideas for comment, the NPSC will continue to evaluate and respond to proposals that affect Nebraska consumers. It is no secret that the United States has fallen behind a dozen other nations in the race for broadband deployment. The FCC estimates that 14 million to 24 million Americans do not have access to broadband. The NPSC has been actively encouraging broadband investment in Nebraska for more than ten years, using tools provided by the Nebraska Legislature. One of those tools is the Nebraska Telecommunications Universal Service Fund Act which requires the commission to establish a mechanism to supplement the Federal Universal Service Fund and provide affordable and reasonable, comparable access to telecommunication services throughout the state. The FCC is currently

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considering adding a broadband to the list of supported services funded by universal service. The Nebraska Commission is considering this as well in Docket NUSF-77 where we sought comments on some general proposals, including the creation of a broadband fund. However, for over a decade the NUSF has indirectly contributed to broadband deployment by incenting carriers to make investments in their networks. In order to be eligible for high-cost support, carriers have been required to use universal service support to maintain and upgrade facilities and services. In addition to the high-cost program, the commission has developed a telehealth program which supplements federal universal service support with \$900,000 annually in state support needed to connect rural hospitals to urban hospitals and a dedicated wireless fund program providing \$5 million annually to support cell tower construction and equipment location in rural areas that are unserved. Another tool is the Nebraska Internet Enhancement Fund, or the NIEF fund, which was created by statute in 2001 to provide startup funding for economically viable and sustainable infrastructure projects that bring Internet and advanced telecommunications services to communities and counties where they are most needed. Grants are usually awarded in the amounts of up to \$50,000. However, larger projects of exceptional merit have been awarded, with applicants required to provide matching funds of at least 25 percent of the total projected cost. To date, 11 grants have been awarded to communities and counties, including the counties of Cheyenne, Box Butte, Dawes, Nemaha, Harlan/Furnas, and Banner, and the communities of Broadwater, Chappell, Dix, Bushnell and Elsie. NIEF grant funds awarded to date total \$533,137. As the FCC and other federal agencies have recognized, one of the most significant challenges to broadband deployment in rural areas is obtaining accurate information on broadband services and infrastructure availability and the demand for broadband services. Last January, the NPSC was awarded a stimulus grant in the amount of \$2.1 million from the State Broadband Data and Development Program administered by the National Telecommunications and Information Administration. This project will result in the most comprehensive broadband data collection in the nation. As instructed by the NTIA, we collected broadband availability data and will develop a publicly available on-line map showing

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broadband coverage. The success of this project is largely dependent upon the voluntary cooperation of broadband providers, and an overwhelming majority of providers have willingly submitted broadband data to the commission for this project. We're grateful for their effort and cooperation. After we have tested the data set to ensure that we have a sufficiently accurate representation, the results of this work will be available to you and the public through a statewide map of broadband availability. The NPSC has coordinated also with the University of Nebraska-Lincoln, the NITC Community Council, and the Nebraska Department of Economic Development for Broadband Planning. As a result of the planning team's survey, we have identified portions of the state where broadband option rates are lower and where broadband is unavailable. Over the next year the planning team will use regional meetings and focus groups to identify ways to overcome barriers to broadband deployment and adoption. On September 27, 2010, the commission received a supplemental award in the amount of \$3,565,926 from the NTIA to maintain the broadband data collection and mapping program for an additional three years and for planning projects which include capacity building, technical assistance, and local team planning. As the committee is aware, more work needs to be done to bring the benefits of broadband to all rural and urban consumers in Nebraska. As the FCC implements its national broadband strategy, state coordination is necessary to address the unique challenges presented by the rural unserved areas. We look forward to working with the committee in any way we can so that we can achieve these objectives. We are available to discuss the specifics of any of these programs further with members of the committee at your convenience. If you have questions I would be happy to try and answer them for you. [LR443]

SENATOR FISCHER: Thank you, Commissioner Vap. Are there any questions?  
Senator Louden. [LR443]

SENATOR LOUDEN: Yeah, thank you, Senator Fischer. Commissioner Vap, on this broadband, what's the difference...this doesn't have anything to do with like your T1 or T3 lines. What I'm wondering about, we have our elementary schools out in these

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remote areas that they can get Internet service, but I don't know if they can get two-way service to have some type of a remote teaching system set up out there. Is there anything in this broadband that would help with that or enhance that or they would be able to use? [LR443]

JERRY VAP: The Distance Learning Program is a state program that has been set up and it is all on an Internet protocol now. A few years ago they had four different technologies were being used and none of them would speak to each other. But every school in the state has the availability of distance learning through the broadband Internet protocol. [LR443]

SENATOR LOUDEN: That's providing they have that line service though. That's got to be landlines to get into there. [LR443]

JERRY VAP: It is, and every school district has that available. [LR443]

SENATOR LOUDEN: Every school district? [LR443]

JERRY VAP: They do. [LR443]

SENATOR LOUDEN: In every place I see... [LR443]

JERRY VAP: That doesn't necessarily mean it's going to get to a rural grade school somewhere. It will go to the high schools for certain. [LR443]

SENATOR LOUDEN: Right. When you say every school, I understand Chadron or Alliance or someplace like that, they have that hookup. Because I met with the ESU the other day and the school superintendents were there, but they had it into their high school facility plants for high school,... [LR443]

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JERRY VAP: Right. [LR443]

SENATOR LOUDEN: ...virtual schools type deal, but they don't have it in to the areas where we have these people that have to drive 45 miles to take kindergartners to school, and that's where my concern is. And I'm wondering if we do this broadband, if there's any way that can help that. [LR443]

JERRY VAP: Well if they have the broadband to those small schools, they should be able to receive distance learning programs. [LR443]

SENATOR LOUDEN: Okay. Will this come...if it's fiberoptic wire service in there, will this pick that up on this broadband? [LR443]

JERRY VAP: Yes, it should, yeah. [LR443]

SENATOR LOUDEN: It should. [LR443]

JERRY VAP: Your educational service unit is in charge of the distance learning program. [LR443]

SENATOR LOUDEN: Well, yes and no. It depends on what you're talking about when you say... [LR443]

JERRY VAP: It's their job to make sure that they've got the connectivity and it's working. [LR443]

SENATOR LOUDEN: But I'm talking about this...you know, your daily language... [LR443]

JERRY VAP: The daily lessons, that would be...they should be able to help with that

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too. [LR443]

SENATOR LOUDEN: Okay. But that's what I'm wondering if we're getting...as we're get this more fiber optics out there, if we'll be able to do that. [LR443]

JERRY VAP: You should be able to, yes. [LR443]

SENATOR LOUDEN: Okay, thank you. [LR443]

SENATOR FISCHER: Commissioner Vap, is there a difference in how...maybe this will be helpful for me and the rest of the committee as well. Is there a difference in how Nebraska defines broadband and how the federal government defines broadband? You know, we hear broadband and it just sounds great, I mean, but what is it? [LR443]

JERRY VAP: I think there's a large number of definitions of broadband. There is... [LR443]

SENATOR FISCHER: Which one do you like? [LR443]

JERRY VAP: (Laughter) The fastest we can get anywhere is the one I like, but. There is no...to my knowledge we don't have a true definition of, set in stone by the FCC, that says so many megabits up and so many down is broadband. There's people that are more technically advanced than I am in the room today that could probably answer that question. Companies, perhaps, that are offering broadband that could tell you what their fastest speeds are and just what they consider... [LR443]

SENATOR FISCHER: Okay, I'll ask them. I think some might be coming up. I'll ask them. [LR443]

JERRY VAP: I'm assured that they will be here. [LR443]

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SENATOR FISCHER: Thank you. Other questions? I see none. Thank you very much.  
[LR443]

JERRY VAP: Thank you for the time. [LR443]

SENATOR FISCHER: Anyone else wishing to present the committee with some information? Good afternoon. [LR443]

ERIC CARSTENSON: (Exhibit 1) Good afternoon. Senator Fischer, my name is Eric Carstenson. I'm president of the Nebraska Telecommunications Association. Carstenson is spelled C-a-r-s-t-e-n-s-o-n. The NTA is a trade association that represents 36 local exchange companies across the state of Nebraska. And I'm here today to present our observations about the National Broadband Plan. Nebraska has one of the most extensive telecommunications infrastructure in the entire nation. There are many reasons for that. Nebraska's steady economy is one reason. A willingness by the NTA members to make good, solid investment is another reason. But undoubtedly, one of the major drivers has been the good public policy created by this Legislature and implemented by the Nebraska Public Service Commission. NTA members are deeply committed to serving their customers and communities through significant investment in state-of-the-art network. In order for telecom companies to make investments for telecommunications and broadband, it's necessary to have a reliable and predictable way to recover that investment. The Legislature has made that possible by creating sound public policy with legislation in 1986 that provided incentives and spurred private investment in the Nebraska telecommunications network. That decision resulted in increased investment in the private network. Another public policy decision this Legislature made was to not allow government entities to unfairly compete with private-sector telecommunications companies. That increased private investment. The Nebraska Universal Service Fund has been a solid underpinning that allows telecom companies to make high-cost investments with the assurance that that investment will



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achieve a reasonable return. That increased investment. These are all public policy decisions made by this Legislature. Each one of them individually is important, but collectively they add up to one of the most robust networks in the entire nation. This Legislature has recognized that once companies build facilities by opening up the ground and plowing in cable, that investment must be recovered over a long period of time, often up to 20 years. There's need for stability and predictability, and change like the broadband plan causes concern for NTA members. The plan is very much up in the air. There are no rules; there is no understandable model of how the compensation will be determined and how it will flow back and forth. There are new and expanded Federal Universal Service Fund obligations, but there's no additional funding. All in all, as we transition to a broadband environment, this plan creates uncertainty which has the effect of stifling additional investment. A number of companies have been leaders at the national level in developing responses and working in ways to fix the flaws in this plan. In fact, the NTA submitted comments about the plan last summer and I'd like to leave a copy of those comments with you today. We had five points and I'll just summarize them real quickly. We're concerned about creating a disparity between urban and rural customers. We think we should maintain the current public policy position that assures rural customers that they can expect comparable service at a reasonable price. Currently this plan sets forth a goal of 4 megabits in rural areas and 100 megabits in an urban area. Number two, everybody should have access to a carrier of last resort which assures every citizen access to telecommunications regardless of where they live. Our third problem with the plan is the financial analysis is based toward a wireless technology that underestimates the cost of the platform and overestimates its long-term scalability. Most people don't stop to realize that most wireless calls rely upon the traditional land-based network to complete that call. Our fourth problem with the plan is that it considers using an auction process, either reverse or procurement. The fallacy of this approach is that it has the potential of leaving very large areas of the state with no affordable service. Our fifth problem is with the increased obligations to the Federal Universal Service Fund are increased, but there's no concurrent increase in the funding. The National Broadband Plan needs to give recognition to the states, like Nebraska,

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that made the hard policy decisions, like this Legislature did, and created a state universal service fund. Nebraska has one of the best networks in the nation, and that promise continues into the future. Just recently two Nebraska entities were awarded grants from the National Broadband Plan stimulus program to build forward-looking infrastructure. Those programs include funding for a fiber-to-the-home project in southeast Nebraska and a very promising middle mile transport system called NebraskaLink. We've enjoyed outstanding telecommunications service because of the good public policy that this Legislature and the Public Service Commission have implemented. We look to the future and hope to be able to continue to flourish in an environment that has a predictable and a reliable funding source. This concludes my testimony. [LR443]

SENATOR FISCHER: Thank you, Mr. Carstenson. Just to clarify, I think for my committee members, and I'm sure you all know this, but the hearing that we're having today on this plan, this is a federal plan. We're not going to change it here, but we're having this hearing so we become better informed and better educated and look at maybe some possibilities we can have to have influence on the plan. With that being said, Mr. Carstenson, do you believe that there will be any changes made to the original requirements, the original plan, the outline that has been put out by the feds? They already have for their second set of programs, haven't they? [LR443]

ERIC CARSTENSON: It's a moving target, sure. And I think it will be a moving target over a number of years. And so input from states, from different companies, from different entities, I think is going to be very important as the plan evolves. But it has begun to evolve and it's definitely a moving target. [LR443]

SENATOR FISCHER: Have you heard back on any of the proposals that you have made? [LR443]

ERIC CARSTENSON: No. [LR443]

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SENATOR FISCHER: Any other questions? [LR443]

SENATOR CAMPBELL: I have one. [LR443]

SENATOR FISCHER: Senator Campbell. [LR443]

SENATOR CAMPBELL: Thank you, Senator Fischer. Mr. Carstenson, have you done any mapping in the state yourself or your group? [LR443]

ERIC CARSTENSON: Well, I can paint a map by giving you this. We have done a survey in conjunction with a sister group called Nebraska Information Network. And we have gone and surveyed every incorporated community in Nebraska. And I can tell you that every incorporated community in Nebraska has got access to broadband. Now I can leave this with you, Senator, if you'd like to look through it. But let that paint a picture in your mind that if the community is incorporated...and many nonincorporated communities also have access to broadband. Many of them even have access to multiple providers. [LR443]

SENATOR CAMPBELL: Thank you. [LR443]

SENATOR FISCHER: Senator Louden. [LR443]

SENATOR LOUDEN: Yes, thank you, Senator Fischer. Well, Eric, when you say access to...or incorporated communities, then that doesn't talk about these ranches out there in the middle of somewhere or anything like that. They might not necessarily have access to broadband unless they're using a cell system or a satellite system. [LR443]

ERIC CARSTENSON: You can't necessarily say that. There are many companies...I have several members, many members, which have developed technologies that can

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get broadband to every single customer they serve. [LR443]

SENATOR LOUDEN: Now you're talking about these communication companies that went ahead and put in fiber optics, is that what you're saying? I mean, you got to have fiber optics to get broadband, is that correct? [LR443]

ERIC CARSTENSON: That is not correct. Two points that you made: one is that there are a number of companies which are either in the process or have completed "buildouts" to get a fiberoptic connection to every customer. But you don't have to have fiber optics in order to have broadband as defined...let's define it over 750 kilobytes per second. You don't have to... [LR443]

SENATOR LOUDEN: Yeah, but we're talking about 4 megabytes or something like that. We're not talking about 7 kilobytes. [LR443]

ERIC CARSTENSON: Seven hundred and fifty. And there are many companies which using a technology called DSL, digital subscriber line, which can get 20 megabyte. So you don't have to have a fiber optic to get a very, very robust connection. [LR443]

SENATOR LOUDEN: Over the same old wire that's been there for 20 years or so? [LR443]

ERIC CARSTENSON: Through using the same technology with that copper pair. [LR443]

SENATOR LOUDEN: Okay, thank you. [LR443]

SENATOR FISCHER: Any other questions? To follow up on Senator Campbell's question about the mapping: Is there a mapping requirement in the federal broadband plan? [LR443]

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ERIC CARSTENSON: There is and I...Commissioner Vap, I think, either alluded to it or mentioned it. The national plan did require the Nebraska Public Service...well, it did require a map to be developed. And the entity responsible in Nebraska is the Nebraska Public Service Commission, and it's our... [LR443]

SENATOR FISCHER: Now the group that you represent, the companies that you represent, was information provided to the Public Service Commission by those companies so that this mapping could be done? [LR443]

ERIC CARSTENSON: Yes. Every one of the entities that I represent provided the extent of their facilities to the commission. [LR443]

SENATOR FISCHER: Is it required by the commission? Is it required in the plan... [LR443]

ERIC CARSTENSON: It is... [LR443]

SENATOR FISCHER: ...that this information be provided, or is it voluntary? [LR443]

ERIC CARSTENSON: If there is no penalty to not providing it, is that voluntary? [LR443]

SENATOR FISCHER: Is there penalty if the information isn't provided? [LR443]

ERIC CARSTENSON: There is not. [LR443]

SENATOR FISCHER: But all of your members have provided that information so that we, as policymakers, have some information available to us so we can make some decisions? [LR443]

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ERIC CARSTENSON: You have it, the information from every one of our members. Yes. [LR443]

SENATOR FISCHER: I thank you for that. How good would a map be if we don't have all the information or if the Public Service Commission or the federal government doesn't have all the information? [LR443]

ERIC CARSTENSON: It's not going to be as good as it should be, because some of these things are going to represent competitive decisions. I mean, somebody is going to look at an area and see it is or isn't served and they can or cannot make a business case to be there. [LR443]

SENATOR FISCHER: You mentioned in response to one of Senator Louden's questions that there are rural areas that are covered and they're outside of communities, and I have some of those in my area. The one that comes to mind is a neighboring community to me, personally, and that is Wood Lake, and I would thank you and one of your members who provided fiber to every ranch in that community. Those people appreciate it. So please tell your company that we do appreciate that. [LR443]

ERIC CARSTENSON: I will. They take very seriously this investment in serving their customers. [LR443]

SENATOR FISCHER: And my constituents appreciate that. Thank you. Any other questions? I see none. Thank you very much. Anyone else wishing to come forward? Oh good, someone else who provides to my constituents. (Laughter) [LR443]

SENATOR HADLEY: When you have a territory... [LR443]

REX FISHER: I'm glad the crowd is getting a kick out of it. [LR443]

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SENATOR HADLEY: When you have a district as big as Indiana. [LR443]

SENATOR FISCHER: New Jersey. Good afternoon and welcome. [LR443]

REX FISHER: (Exhibit 2) Good afternoon, Chairman Fischer and members of the Transportation and Telecommunications Committee. I'm Rex Fisher, Nebraska state president for Qwest Communications. I'm here to provide a brief and high-level overview of the state of broadband access relative to LR443. Qwest serves 63 exchanges across Nebraska, consumers across 14 Midwest and western states, and business customers across the entire United States. So we do have a broad base of experience in the business. The deployment of more and faster broadband has been our most strategic priority for a number of years in the company. As a company we have broadband service available to 89 percent of Nebraska households, which ranks us second in the Qwest 14-state region. Nationally, Nebraska is one of only four states to have deployed DSL or cable-based broadband to 100 percent of switch-served communities, and Nebraska ranks fifth nationally with 93 percent statewide availability. If you include satellite broadband, Nebraska has 98-99 percent availability. While there's still much more to be done to expand availability and increase speeds, there are a number of reasons Nebraska is a national leader. First, Nebraska was the first state in the country to deregulate the telecommunications industry in 1986, which encouraged investment and innovation in many areas. One example in my company was in 1991 Omaha was selected to be the first market for deployment of our cable TV business. Nebraska has a vibrant, competitive landscape, and Omaha, as an example, is one of the most competitive markets in the country, and that also applies across the state. Second, there's been a strong public-private partnership between the telecommunication industry and the Public Service Commission, the Legislature, and the executive branch. The infrastructure of the Public Service Commission has supported with Universal Service Funds has ensured not only reliable and affordable telephone service, but also enabled more broadband deployment. Without that we would not have broadband available to

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100 percent of our communities and you wouldn't have 93 percent of the households covered. As a major partner and a general contractor-type role with the other telephone companies in the state, I can tell you the public-private partnership over the last 20 years has also created a telehealth and distance learning network that rank in the top 10 nationally. The state of Nebraska has also created a top-notch network and made sure the network is maximized. A good example of that was back in 1997 when the university was looking at creating a separate overlay network. The executive branch back then worked to make sure the state met the university's network needs. That prevented, in our opinion, a duplicate and costly overlay network, but also strengthened the statewide network that was in place at the time. The Legislature in recent years has had the wisdom to prohibit public entry into telecommunications, knowing that would not serve the best interests of the state and the taxpayers that fund those type of initiatives. Third, Nebraska has also had the vision to have a strong Universal Service Fund to make sure that a rural state like ours is well served and at the forefront, which is critical to retaining and attracting individuals and businesses to this state. With broadband so critical to economic development, Qwest has been supportive of responsible Universal Service Fund reform at the state and the federal level to allocate broadband support to companies to support the existing and new deployment of broadband service. Nebraska again is leading the way with the Public Service Commission looking at reform, and Representative Lee Terry, who sits on the Commerce Committee, is a cosponsor of the Boucher/Terry legislation to reform universal service funding to support broadband. The future is challenging and exciting, and the facts demonstrate that Nebraska is well positioned to meet the current future needs of individuals and businesses. I've been state president in '97-99 and again from 2003 to today; I'm not aware of any business that has ever left this state or not located to Nebraska because they could not get the bandwidth they needed. I can also say that for Qwest our prices are the same for telephone and broadband service in every community we serve, whether that is Atlanta or Omaha. We will continue to make good business decisions that allow us to meet consumer and business needs across this great state. Thank you for allowing me to come before you today and that concludes my testimony. [LR443]



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SENATOR FISCHER: Thank you, Mr. Fisher. Any questions? Senator Stuthman.  
[LR443]

SENATOR STUTHMAN: Thank you, Senator Fischer. Mr. Fisher, you continually dealt with the thing that public and private partnership that worked so well in Nebraska. In other states that you serve, are there states that don't have that cooperation? [LR443]

REX FISHER: Well, I'm probably biased. I think we have better cooperation. You know, you don't necessarily have a universal service... [LR443]

SENATOR FISCHER: That's because you have this committee to deal with. [LR443]

REX FISHER: Right, exactly. You don't necessarily have Universal Service Fund in every state. I think in our 14 states, there are 5 or 6 states that have a Universal Service Fund, and the degree of that fund does vary. I really do think that if you looked at it and asked objective people, you'd say that we have a better working relationship here, in my opinion, a cooperative relationship, less fighting with the companies, the commission, the legislative and the executive branch. And that's why I pointed out a lot of the facts that I think support that history. [LR443]

SENATOR STUTHMAN: Okay, thank you. [LR443]

REX FISHER: You're welcome. [LR443]

SENATOR FISCHER: Other questions? Senator Louden. [LR443]

SENATOR LOUDEN: Yeah, thank you, Senator Fischer. Mr. Fisher, you work for Qwest? [LR443]

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REX FISHER: Yes. [LR443]

SENATOR LOUDEN: And are they in the process of putting in fiber optics in some parts of western Nebraska? [LR443]

REX FISHER: Well, we're putting in fiber optics continually as we continue to upgrade the network and put new services in. There's fiber optics that's in what I call our backbone network, the distribution network, and then there is fiber that is put out all the way to a home. And so we do a lot of different things depending on where we're going and how we're going to serve. Our DSL coverage that we have statewide, most of that DSL coverage and broadband runs over the same copper to the house that was put in, in 1950 or 1960. A lot of what's happened in the business in the last 10 or 20 years is the electronics that you put in the network or what is driving the ability to get more and more bandwidth on the network that you have. So, we're driving a lot of the same speeds and you can do that over copper, fiber, either infrastructure. [LR443]

SENATOR LOUDEN: Well you can't do it from Alliance to Ellsworth. [LR443]

REX FISHER: Not everywhere, exactly. [LR443]

SENATOR LOUDEN: Because we tried that, because we finally had to go to satellite. But I see now they're putting in, I suppose it's fiber optic. And that's the reason I'm wondering if we will be able to get DSL over that, and will it be cheaper than what our satellite costs us or our cell phone service costs us, because that's what's going on out there now. Now cell phone service isn't that great because if you're on the wrong side of the hill, you don't get Internet service to where you live. You might get it out there in the middle of the meadow or something, but you don't get it where you live. And I'm wondering how far you're going with this fiber optic, if you're doing something that's going to be able to help us out there in that area, what Qwest owns, from east of Alliance, I guess, you might say? [LR443]

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REX FISHER: Yeah, I mean, if you're talking about fiber, well outside of town all the way to the home, that's really...there's not a lot of that going on as much as there is fiber in the backbone. We've delivered faster and faster speeds. I think, in terms of price, I know that satellite is more. I think most of our broadband service price ranges for the 1.5 megs to 5-megs services, which most people have, is anywhere from \$25 to \$35 a month. So certainly I know that that price point is a lot lower. And the bandwidth keeps going. The senator's question earlier about speeds, I think the general rule at the FCC has been broadband is defined at 200 kilobits. And so I think you see a lot of 256k service out there. Our minimum starting point is really 1.5 megabits; so we've been well above that. That is what we choose to deploy. But you're seeing 3 and 5 and 7 megs being driven over the existing network. We're putting fiber in. We had a hundreds of millions of dollar investment over the last two or three years where we're taking fiber closer to the home, which drives faster speeds. That drives 12 megabits and 20 megabits to a house, and... [LR443]

SENATOR LOUDEN: Now when you say, what, 1.7? [LR443]

REX FISHER: 1.544 megabits, right. [LR443]

SENATOR LOUDEN: Okay. What's a 1.5 megabit? How long will it take...when you go onto somebody's Web site, how long will it take them to paint that picture? [LR443]

REX FISHER: Oh, that's going to depend on a number of things. [LR443]

SENATOR LOUDEN: Do I push it in and then go eat supper and then come back after supper? [LR443]

REX FISHER: No, no. I don't think that's going to happen with 1.5. You're going to probably see that more with dial-up. But, no, it shouldn't be that slow. But you know the

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equipment you have and things like that. But it's pretty quick, I don't have the number on it, but you know, you're talking seconds or less than that when you have 1.5 megs.

[LR443]

SENATOR LOUDEN: Okay, because that was our problem with most of it before, and we were over the Qwest line. The other problem was there were so many holes in that line that it would drop it off all the time. [LR443]

REX FISHER: If you were in dial-up mode, in certain cases I can see how you might wait awhile. [LR443]

SENATOR LOUDEN: I was quite concerned that Qwest would do something. I used to...the man back there, I used to hassle him long and hard over that. Thank you for your testimony. [LR443]

REX FISHER: You're welcome. [LR443]

SENATOR FISCHER: Senator Hadley. [LR443]

SENATOR HADLEY: Senator Fischer. Mr. Fisher. We've talked a lot about rural Nebraska and access and such as that. I guess from a societal standpoint, how about Omaha, Nebraska, where we have a lot of access obviously, but we're going to have people that may not have the resources to use that access? And as time goes on in our education system, where computers and the Internet and such as that are going to be used more and more in education, how are we going to handle those families that just don't have the resources for access? Does that eventually put their children behind the eightball when it comes to education? [LR443]

REX FISHER: You know, certainly there's not a computer in every home yet. And if you're going to get to the Internet and you're going to need broadband, you're going to

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need that computer. I think there's...certainly there's a lot of programs out there today, the schools, and then you have the libraries. You know, it continues to grow. I mean that's certainly an issue. I think, you know, as I said, I think if you look at prices, the future is probably going to hold what it has held in the past, and that is, I think we're probably offering twice the bandwidth at half the price that we offered four to five years ago. So price continues to come down. I think I currently have a \$14.99 promotion going in Omaha right now, so, you know, at some of those lower levels. We've had "price for life" programs in Omaha and the rest of the state a couple of different times over the last five years. But certainly you need to keep up and I think there's a lot of programs trying to do that. That's what I would say. [LR443]

SENATOR FISCHER: Mr. Fisher, in following up on Senator Hadley's question there, the Universal Service Fund that we have in the state of Nebraska we usually just hear how it benefits rural Nebraska. But it also benefits urban Nebraska, too, with the low income portion on that, doesn't it? [LR443]

REX FISHER: Yes, it does. [LR443]

SENATOR FISCHER: So wouldn't you say that those families in Omaha, they do benefit by that and there is help and they're not...whether they're Omaha or wherever, but it...I would guess, we can ask Mr. Hybl later, but I would guess most of the money for that portion of the Universal Service Fund is going to urban areas. [LR443]

REX FISHER: I don't know the breakdown, but that...when I said other programs, there are state programs in USF; there's also federal programs that help address it, probably more than ever. So, you have to get the breakdown. I'm sure Mr. Hybl can take you through the detail of that. [LR443]

SENATOR FISCHER: Also in your testimony, you said...you made mention of switch-served communities. What are those? [LR443]

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REX FISHER: Right. Well, when you have a central office or a telephone switch in a community. There are some communities that...there a handful that are basically... [LR443]

SENATOR FISCHER: Like Blair. [LR443]

REX FISHER: No. [LR443]

SENATOR FISCHER: No, Blair doesn't have it with their... [LR443]

REX FISHER: Blair would be a switch serve. There have been a couple of communities where they have been remotes off of another community switch and so we didn't necessarily get broadband deployed there in terms of 1.5 meg service. [LR443]

SENATOR FISCHER: And what's your definition of broadband? [LR443]

REX FISHER: Well again, I can only...for us for the most part... [LR443]

SENATOR FISCHER: You said with the feds it's 200. [LR443]

REX FISHER: The feds have...well they have traditionally said 200 kilobits, and while we have some 256k service out there, I think 99 percent of what we deploy, we like to start at 1.5 megs. Now the feds in the recent broadband stimulus money, on that \$3 billion, they have raised kind of the criteria in that plan, and they wanted to say broadband started, I believe, at 5 megs service. So they want to take it up significantly from where it is. Now whether they make that a requirement, we will see. But I think it may move from 200k. [LR443]

SENATOR FISCHER: What can you do with 1.5 megs? You can make a phone call.

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How much bandwidth does that use? [LR443]

REX FISHER: It's interesting how to describe it. I mean, you're going to be able to get on the Internet; you're going to have pretty immediate access and be able to move e-mails and surf. [LR443]

SENATOR FISCHER: No, let's just start at the...well, I'm doing wireless. Okay, go back to the Internet. We'll do landlines. Okay, let's go back to that. [LR443]

REX FISHER: Okay. [LR443]

SENATOR FISCHER: You can get on the Internet fast. [LR443]

REX FISHER: Right. [LR443]

SENATOR FISCHER: Can you watch YouTube stuff fast? [LR443]

REX FISHER: Yeah, you can get on-line and download from YouTube or whatever it might be. [LR443]

SENATOR FISCHER: What about movies? [LR443]

REX FISHER: It's going to take longer with 1.5-meg service. But again, some people are now getting 3, 5, 7, 12, and 20. But videos is where you do start to need more bandwidth. Unless, as Senator Louden said, you want to come back later on after dinner. [LR443]

SENATOR FISCHER: Okay, so what do you need for games? [LR443]

REX FISHER: That depends which games you play. That's a really tough question to

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answer because the gaming ranges all over the map. [LR443]

SENATOR FISCHER: I'm not a gamer. [LR443]

REX FISHER: Yeah, I mean. You know, we've had...just a perspective, I mean, it...you know you hear a lot about 10-, 20-, 100-meg services, but the 12- and 20-meg service that we've started to roll out takes care of most of those kind of requirements. There have been very few examples where people have been able to overload that level of service. [LR443]

SENATOR FISCHER: What do most of your customers have? How much do they have? Do they have that basic, like 1.5, or are they going after higher? [LR443]

REX FISHER: The majority, without getting into specific percentages, majority of customers are still buying the 1.5 to 5-meg service. A lot of the 1.5 meg, there's a 1.5-meg price, but they're getting up to 5 megs in a lot of places now because we've continued to upgrade. So that's the most popular service that's used. There's a higher percentage of people buying 1.5 meg than there are buying 7 megs or 12 megs. [LR443]

SENATOR FISCHER: And if you want more, you pay for it. [LR443]

REX FISHER: You pay more, right. [LR443]

SENATOR FISCHER: With the satellite, which is what my sons have to use, which is better than the dial-up that they were using, no offense to Qwest, but are they able to get, how much? Do you...are they limited like at 1.5? Can they get 12? Can they get 20? [LR443]

REX FISHER: We don't sell the satellite service. [LR443]



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SENATOR FISCHER: I realize that. [LR443]

REX FISHER: But it is my understanding, and this may be a question for Mr. Hybl as well, but it's my understanding that the satellite services are going to be pretty close to 1.5 for service. I think that they are in that range. You'll have to ask someone who is providing that. But the price varies...and again, there's a lot of 256 kilobit service out there today too. And a lot of people buy that and they're happy with it, is my understanding. We just don't have much of that. But there are other companies that do. [LR443]

SENATOR FISCHER: Right. And as you said, the majority of your customers are happy with that 1.5 too. [LR443]

REX FISHER: They're buying the 1.5. Exactly. [LR443]

SENATOR FISCHER: Okay. Thank you. Any other questions? I see none. Thank you for coming today. Always a pleasure to see you. [LR443]

REX FISHER: Thank you. [LR443]

SENATOR FISCHER: Anyone else? Good afternoon. [LR443]

MICAH SCHWALB: Good afternoon. My name is Micah Schwalb, probably be the hardest one to spell today, it's M-i-c-a-h, last name is spelled S-c-h-w-a-l-b. I serve as corporate counsel for Viaero Wireless and I'm also a member of the governor's broadband commission in the state of Colorado. I'm here today, basically, to touch on three issues that we see that have come up through the National Broadband Plan. Chief among them, the role of mobile broadband. Second, the Mobility Fund that the FCC has devised which they released the proposed regulations on yesterday. So I'm still trying to

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assess them and I only had 24 hours so I'm not going to be totally nailed down on all that. And then finally the issue of reverse auctions, which are sort of at play but within high-cost universal service support, as well as this newly announced mobility fund. Viaero serves, for those of you that are not aware, we're basically the rural provider in the state. We do not cover Lincoln. We do not cover Omaha. We also do not serve the counties north of Omaha. We're basically the rural folks and we're a GSM carrier, similar to T-Mobile or AT&T. We were also...we applied for Recovery Act funding under both rounds of the program, but due to various and sundry issues, none of which they will explain to us, we were not awarded the monies that we hoped for that would have allowed us to deploy 3G wireless service throughout our service territory in the state. I mention this because I want to place a spotlight on the role of mobile broadband in this entire equation. Mobile broadband essentially works much like cellular service. It actually relies upon existing cellular towers, of which we have many. And much like a cellular service, it's critical for public safety, travel between point A and point B. It's critical both to the folks that are stopped by the side of the road trying to get a tow truck to come out and help them, as well as to first responders who are trying to fight a fire in Chadron when other services go down. We are one of the larger carriers in the state as I mentioned. But I should also mention that we do not rely upon the local telephone carriers in the state. We have, basically, engineered a network that entirely bypasses existing wireline telephone carriers. And so, in effect, we operate a separate and redundant network that will keep on running when there is a fiber cut within the state. Let me jump to the Mobility Fund. This came out yesterday. So again, it's new stuff. Essentially what the...this comes out of the National Broadband Plan, and what the Federal Communications Commission is proposing to do is to hold a series of reverse auctions to allocate something like \$300 million to areas of the country that it considers to be unserved. This \$300 million is actually coming out of \$2 billion that were surrendered by Verizon and Sprint through their merger proceedings. And so out of that \$2 billion, they are only allocating \$300 million for this particular fund. But it's important to note that because Verizon and Alltel were part of this merger, effectively what this means is that \$42 million will be leaving the state over the course of the next five years

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and being...these monies will be shifted towards this mobility fund, and whether or not they will come back into the state is anyone's guess. As far as I can tell under the proposed rules and regulations that the commission has come up with, the state of Nebraska will not see that money again. And again, that's \$42 million out of a total of, I think, \$109 million that is in the state on an annual basis for high-cost support. Part of what the FCC seems to be looking at is where are the areas in the state where there is not 3G coverage. And thanks to some of the larger carriers that are in the state, really there's quite a bit of 3G coverage that's out there. Now 3G is sort of a misnomer in that you can have speeds somewhere in the neighborhood of 768 kilobits per second down, 200 kilobits per second up, and that will qualify as 3G. Now you know and I know that if you want to get on-line and download a movie, let's say, it's going to take you a little while to do that over a 3G connection in those areas where that's really your only alternative. The last thing I'll mention concerns reverse auctions. The gentleman from the NTA mentioned these as a potential stumbling block in the National Broadband Plan. We firmly agree with that. Essentially what they're proposing to do is to say, all right, here is a particular area and whoever submits the lowest bid gets the funding to actually deploy broadband in these areas. That's great. But to me a reverse auction requires competition, and the FCC has concluded in a recent proceeding that there is not actually very good competition within the mobile market, at least even in urban areas, let alone in rural areas, as I'm sure you're all aware. The other thing that this fund could potentially do is allocate the support dollars for anywhere between 5 to 10 years which, essentially, means that you're restoring the monopoly that existed before the '96 act. So capital is the lifeblood of telecommunications deployment, and without that capital the folks who don't have it probably will wither; you'll see a lot more consolidation. And the folks that do have it will be set up for a while. But that's all I had for you. Thank you. [LR443]

SENATOR FISCHER: Thank you very much. [LR443]

MICAH SCHWALB: Sure. [LR443]

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SENATOR FISCHER: Are there any questions? Senator Louden. [LR443]

SENATOR LOUDEN: Yeah, did I understand you're with Viaero? [LR443]

MICAH SCHWALB: Yes, sir. [LR443]

SENATOR LOUDEN: Okay. Now with their Internet service, how many kilobytes do you get when you have that little card that you stick in your computer? [LR443]

MICAH SCHWALB: Sure. We haven't publicly announced this yet, but I'll make it public now. We're upgrading our switch to a 3G switch by the end of this year. By the time that we manage to get all of the 3G radios deployed throughout our network, we will probably be seeing peak speeds of 22 megabits per second down, 5 megabits per second up. If that makes sense. At the present time we're on what's called a EDGE network and that's maybe 300 to 400 kilobits per second down, if that makes sense. [LR443]

SENATOR LOUDEN: Okay. And when you upgrade that...and, what is it, about \$60 a month for that? [LR443]

MICAH SCHWALB: No, it's going to range. We are sensitive to the needs of the marketplace and sensitive to the fact that in rural areas there is a much higher price sensitivity and so we will have plans that are priced at about \$10 per month. They will be capped in terms of the amount of data that you can download. But what's key for us is making sure that people can get on-line and they can do so in an affordable way. Typically we price our plans at 25 percent to 20 percent below whatever the large national carriers are charging. [LR443]

SENATOR LOUDEN: Well I was going to say, I think...see, we have Viaero where I live,

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and we have a tower on the ranch. [LR443]

MICAH SCHWALB: Yep. [LR443]

SENATOR LOUDEN: And we use...my son has the Internet. But I thought it was around \$60 a month for that Internet service. It was another cellular line is what comes in on that. [LR443]

MICAH SCHWALB: I believe...I'm not exactly sure, I'll have to get the exact pricing for you, but I think it's closer to \$40 if memory serves. [LR443]

SENATOR LOUDEN: Because I'm wondering if you upgrade, will the price go up? [LR443]

MICAH SCHWALB: It will depend on the plans that are available. We will have different price plans that will depend upon whether or not you're staying within our local market or whether or not you're seeking to travel, and the prices will vary based upon that. But as of...I think, as of this week, we're now offering an unlimited local data plan for...I want to say twenty...somewhere between \$20 and \$30. [LR443]

SENATOR LOUDEN: I see. Now getting back to what I had asked Mr. Carstenson awhile ago, where would we go with some of these schools in these rural, remote areas? Will your system work so they can talk back and forth to a teacher in a satellite position? [LR443]

MICAH SCHWALB: Yes, sir. In fact we have a demo of this system up and running at our corporate headquarters, and we have about 25 users on it and some of them are actually using it for distance learning right now. [LR443]

SENATOR LOUDEN: This school system that's out there now, they could tap into that

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with what you have... [LR443]

MICAH SCHWALB: Yes, they could. [LR443]

SENATOR LOUDEN: ...or would it have to be some technical work done in order for them to get into it with your system. [LR443]

MICAH SCHWALB: Depending upon the full capacity needs of the school, we might need to make some upgrades, but we also have a pretty extensive backhaul network that allows you to get to very, very fast speeds, setting aside the handsets and the devices that we'll be selling. And we've done that with some smaller schools. We have one school that's maybe within 15 miles of the office that we put in a 10 megabit per second connection right into our backhaul network, and they seem to like it. [LR443]

SENATOR LOUDEN: Okay, thank you. [LR443]

MICAH SCHWALB: Sure. [LR443]

SENATOR FISCHER: Other questions? Welcome to Nebraska. [LR443]

MICAH SCHWALB: Oh, thank you. [LR443]

SENATOR FISCHER: Did I hear you correctly when you said that your company is bypassing the local landlines that we have? [LR443]

MICAH SCHWALB: Yes, you did. [LR443]

SENATOR FISCHER: So it would be incorrect for me to, say, to make a cell call in this state we need to have our landlines out there? [LR443]

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MICAH SCHWALB: We are...Viaero Wireless, according to our vendor, is the largest private microwave network. We actually operate two different networks. And what I mean by microwave is, if you look out on top of one of these buildings out here, you'll probably see a big 10- to 12-foot dish out there that looks like a big pizza. And you can have...you can basically have a 350 megabit per second connection between point A and point B using that. We have those connections stretched out at about 20 miles between each tower, and effectively what we've done is, again, bypassed the local exchange carrier. [LR443]

SENATOR FISCHER: How do you work it though...you're going to have to hit a landline someplace, aren't you? [LR443]

MICAH SCHWALB: Sure. We have... [LR443]

SENATOR FISCHER: So are you sending all these things to Colorado? What are you doing? [LR443]

MICAH SCHWALB: We have a switch in Grand Island and we have a switch in Fort Morgan. [LR443]

SENATOR FISCHER: So you have enough towers between, like every 20 miles, that you can just keep relaying it down until you get to Grand Island or Fort Morgan? [LR443]

MICAH SCHWALB: Yes, ma'am. Our entire network is basically independent from that. With the 3G deployment that we're planning on doing, we will actually...we'll have some other points of interconnection where we off-load traffic. So we'll go from 2 to 8, and we are currently using Qwest for all that. [LR443]

SENATOR FISCHER: So you hit Qwest then in Grand Island? [LR443]

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MICAH SCHWALB: Or in, yes, or in Fort Morgan. [LR443]

SENATOR FISCHER: Or in Fort Morgan. [LR443]

MICAH SCHWALB: Yeah, and we'll continue to use Qwest for those other interconnection points. But this is...getting back to the public safety point, you know, if there's a... [LR443]

SENATOR FISCHER: So you still need a landline someplace? I consider Qwest local. [LR443]

MICAH SCHWALB: We consider them wholesale. [LR443]

SENATOR FISCHER: Okay. [LR443]

MICAH SCHWALB: We use them for all of our really major wholesale pipes. And what that allows us to do is be on air when there's a fiber cut, let's say in Scottsbluff, when everybody else isn't. We have a network that's engineered for what the engineers tell me is "six 9s" of reliability which I think means it's only down for a couple of minutes every year. And that allows us to get really incredible speeds at a much lower cost per household than you could typically get with a landline telephone network. So to put that into perspective for you... [LR443]

SENATOR FISCHER: But you still are a landline network? [LR443]

MICAH SCHWALB: No, we're pretty much all wireless until you get to those two points of interconnection and that's it. [LR443]

SENATOR FISCHER: And then where does it go from Grand Island? [LR443]



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MICAH SCHWALB: It goes onto the Qwest network, and that's the big wholesale network. It's not a local exchange carrier like, say, Pioneer Telephone down in Kansas. [LR443]

SENATOR FISCHER: But you still have to say it's a landline wouldn't you? I'm not trying to pick a fight. I'm just... [LR443]

MICAH SCHWALB: No, no, no, that's quite all right. [LR443]

SENATOR FISCHER: I'm just trying to understand this. [LR443]

MICAH SCHWALB: I think within the industry the term landline would refer to what's at the end user's house. And so from that perspective, if you're at the person's house, you're not really plugging in a telephone into the wall. You basically have a cellular phone. And the distinction, I think, comes down to what's happening at the tower. So at the tower, most carriers will actually run fiber or a T1 line out to the tower, and then they're on that public switch telephone network from the tower all the way back. I was at a financial conference a couple of weeks ago where they said, well, we all know that it's only wireless from the handset to the tower. For us, it is wireless from the handset to the tower and then all the way back to Grand Island or Fort Morgan. And what this does for you is it allows you to avoid situations where, let's say, somebody is putting in a fence post and hits the wrong line and all of a sudden you've got a quarter of the state out of business. [LR443]

SENATOR FISCHER: Senator Loudon and I are careful. (Laughter) [LR443]

MICAH SCHWALB: Yeah. Well, you know, I am too. But it's been known to happen and it's happened in the past. [LR443]

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SENATOR LOUDEN: I thought it was plumbers that dug it...(laughter) [LR443]

MICAH SCHWALB: You know, as a son of farmers, I can tell you, it's often farmers putting in the fence posts. (Laughter) But all of this is basically a way of saying that wireless has a critical role to play here, and the figure I want to leave you with is as follows: Within the Recovery Act applications that were submitted in this last round, we were required to come up with a cost per household, which I think gets to the universal service issues that are in play here. According to the deputy general counsel for Qwest, what they proposed to do was about \$1,000 per household, to give you a speed, I think, of 4 to 1: 4 megabits down, 1 up. We can do that for about 300, after all is said and done. And on top of that it is mobile. That's all for me. [LR443]

SENATOR FISCHER: Okay. Thank you very much, appreciate you coming. [LR443]

MICAH SCHWALB: Thank you. [LR443]

SENATOR FISCHER: Anyone else wishing to testify? Good afternoon. [LR443]

WAUNETA BROWNE: Good afternoon. My name is Wauneta Browne and that's W-a-u-n-e-t-a B-r-o-w-n-e, and I am the regional vice president for AT&T for external affairs. And I really appreciate the opportunity to be here today with all of you and visit about the National Broadband Plan. Our industry, which used to be referred to as a telecommunications industry, has changed dramatically over the last 25 to 30 years. And I believe it will change even more as we move through these next 25 to 30 years. We no longer really operate in a telecommunications marketplace, but instead we operate in a communications marketplace where everything we used to know is changing and those changes are impacting everything and everybody. To place these changes in perspective, I'd like to just take a minute to look at what's happened in our industry. Though the telephone has been around since the 1870s, by the end of the 1950s there were roughly about 32 phones for every 100 people in the United States

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and we were the envy of the world. And then by 1970, almost a hundred years after it came into being, we finally were able to reach over a 90 percent penetration rate in our country. So let's contrast that to what we're experiencing today and look at cellular mobile services. They began operating in 1983, and by 1986 subscriberships had topped 2 million. Today, 27 years later, after it was introduced, we're now at a 90 percent penetration rate for wireless subscribers which equates to approximately 285 million wireless subscribers in the United States. And in 2009, those wireless subscribers used 10 times more minutes than in the year 2000. They used 2.3 trillion minutes. In 2009, Americans sent nearly 2,000 times the number of wireless text messages as they had in 2005, for a total of 1.5 trillion text messages. And let's look at the iPhone; it wasn't launched until June of 2000 and it now features over 200,000 applications and has tens of millions of users. You know it took McDonald's 15 years to serve 1 billion hamburgers. And in just nine months we had our iPhone customers download 1 billion applications. You know when you look at our industry, it is just amazing. I mean Cisco notes that the amount of traffic on the Internet in 2012 will be 75 times greater than it was in 2002. By next year they are estimating that 20 typical households will generate as much traffic as across the entire Internet in 1995. That's amazing. And the Twitter community, they're producing 50 million tweets a day from 105 million users. And that's a 43 percent increase over last year. And the Facebook faithful, they're posting 60 million status updates a day and that's a 33 percent increase over six months ago. And finally, when you think about Amazon, it sold its first Kindle in 2007. And look at the way it's altered the way people read books, magazines. It's created a whole new industry. You know, these kinds of gee-whiz facts are interesting, but I think the more important questions are, what differences do these applications that accompany the technology make, and what are the implications of this kind of growth for all of us? We are at a critical crossroad, particularly when it comes to communications technologies. What may be remarkable...the most remarkable about all of this innovation, growth, and success is that this has all happened due to technological advancements and consumer demand. It has not come from government mandates or regulations. In fact, so far the government has made it an explicit policy to

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keep its hands off the Internet and the wireless, and to let it flourish. So as we look at what's happening in the landline network, we're now moving from a circuit switch technology to an Internet protocol technology. And some suggest that that network will be replaced and totally Internet protocol technology by the year 2020. The transition to a fully broadband world will take some period of time to achieve and will only come about through private investment working in concert with the federal and state policymakers and through reform of those laws and policies and regulations. As we look towards what needs to happen, I think we have to think very carefully about how do we get from the world we live in today to where we're headed. There's many issues that both the federal and state policymakers, such as yourself, are going to need to deal with. We need to look at the regulations that are out there. We need to look at the intercarrier compensation mechanisms that are in place. And so as we move forward, we need to figure out how do we create an environment that will encourage innovation, investment, and create job opportunities here. And AT&T hopes to be a part of that solution. Thank you. [LR443]

SENATOR FISCHER: Thank you very much. Are there questions? Senator Hadley. [LR443]

SENATOR HADLEY: Senator Fischer, thank you. I think we asked Mr. Carstenson a question earlier about potential changes to the National Broadband Plan that might be talked about, and from your level with AT&T, do you have any comments on...or what are you hearing as to what people think might be changes to this plan? [LR443]

WAUNETA BROWNE: I think that as it stands today, it's very uncertain as to where this is all going to end up. I think it's a moving ball. I think that we're all going to need to work together and make sure we understand what's being proposed and be active. Because I think what we...what comes out in the notices today, by the time decisions are finally made, that changes will occur. And my concern is, is that instead of trying to obtain information and have it resolved, it's the time span that it's going to take. And it's that

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time that may become problematic. [LR443]

SENATOR HADLEY: Thank you. [LR443]

SENATOR FISCHER: Other questions? Senator Stuthman. [LR443]

SENATOR STUTHMAN: Thank you, Senator Fischer. Ma'am, you talked about what we've done in the past years, how we've progressed and how much technology there's been. What do you see in the future, the next 20 years? How much further can we expand? Or what would be a goal that you're attempting to get to? [LR443]

WAUNETA BROWNE: I think the goal of America and of our company is we need to get to a broadband world. Broadband will impact our economics. It will impact our children. It will impact our whole world. And the rest of the world is moving forward and we just cannot let America be left behind. [LR443]

SENATOR STUTHMAN: Thank you. [LR443]

SENATOR FISCHER: Other questions? Senator Campbell. [LR443]

SENATOR CAMPBELL: Thank you, Senator Fischer. I was somewhat surprised that you didn't talk at all about what percentage of the American population no longer has a land phone. (Laughter) Because I certainly have children who no longer have land phones. [LR443]

WAUNETA BROWNE: You know, I don't have that statistic with me, but it certainly...I agree with you. It is increasing year over year. We have more landlines being...consumers leaving the landline network and consumers choosing to use cellular service. And you know, part of what's my concern is that as we do that, the compensation mechanisms that we have set up for the existing network rely upon more

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users than there are today. We've got lines decreasing, we've got minutes decreasing, and then there's this cost that has to be recovered. And the historical compensation mechanisms are not built for the environment that we live in today. And that's why I believe one of the first things that really need to be done is to come up with a compensation mechanism that will ensure that we care for that traditional voice network, but yet plans for the future as well. And that's what all of us are struggling with in our industry. [LR443]

SENATOR CAMPBELL: Thank you. [LR443]

SENATOR FISCHER: Other questions? I had just a couple here. When you spoke of a broadband world, define that for me. [LR443]

WAUNETA BROWNE: It's an IP technology-based network that will allow access to the Internet. [LR443]

SENATOR FISCHER: If it's wireless, would you...I'm taking from your comments, you see us going more wireless, and I don't disagree with that. I think it's 20, 30, 35 percent of people don't have landlines anymore, and for younger people that percentage is much higher. If we're going to go wireless, is there enough spectrum involved? I mean is there enough spectrum available? Is the government going to have to auction off more? What is that going to do to costs? If more people are watching movies or whatever on this, how does that impact national security? How does that impact emergency services? Are we going to have determine who has priority on that? What are your thoughts on that? [LR443]

WAUNETA BROWNE: I agree that everything you brought up is a concern. Because as we move forward, yes, there is only so much spectrum out there, and what we're seeing now is reallocation of spectrum. And part of the National Broadband Plan actually has a major emphasis on how do we allocate spectrum appropriately. How can we take some

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of the existing spectrum and utilize it in a more efficient manner? And so those are all issues that as we move through the next five, ten years, we're going to have to figure out. And hopefully technology may assist in that. You know, who would have ever thought that what we're doing today, ten years ago I could have never imagined doing text messaging, talking on the cell phone. I remember the big clunky cell phones, okay. So, you know. But look at what technology has. I mean, today I carry my computer in my hip pocket. And so that's going, you know, it's going to be a combination effort, I think. [LR443]

SENATOR FISCHER: I brought up mapping earlier. AT&T is a worldwide company, but just focusing on the United States here, and of course Nebraska specifically, but in the...since it is in the broadband plan that they would like mapping, again it's no penalty, so who knows if it is required or voluntary, but its in the plan that there's mapping. I assume that every state is then...I'm looking for your perspective on this, every state is requiring you to map then, aren't they? [LR443]

WAUNETA BROWNE: Every state has established some organization within the state, just like the Nebraska Public Service Commission is doing mapping here, and has gone then out to the carriers and has requested data. And certainly AT&T has provided that data in every state where we happen to have had that request received. [LR443]

SENATOR FISCHER: Have you received it in Nebraska? [LR443]

WAUNETA BROWNE: We have and we have responded. [LR443]

SENATOR FISCHER: Okay. Thank you. Have you made an application? If I'm getting into your business that isn't supposed to be public, you certainly don't have to answer, but just curious, have you made an application of...under the broadband plan for any of it? [LR443]

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WAUNETA BROWNE: We have not. [LR443]

SENATOR FISCHER: May I ask why? [LR443]

WAUNETA BROWNE: I do not know the specifics of the decision-making there. I just wasn't involved and I've never asked that question. [LR443]

SENATOR FISCHER: Do you guys like the plan? [LR443]

WAUNETA BROWNE: Do we like the broadband plan? [LR443]

SENATOR FISCHER: Yeah. [LR443]

WAUNETA BROWNE: Yes, we look forward to seeing implementation of many aspects of the broadband plan. [LR443]

SENATOR FISCHER: But just not that you need...or not that you are making application for any of the money that's available at this time. [LR443]

WAUNETA BROWNE: To date we have not made application, right. [LR443]

SENATOR FISCHER: Do they have a lot of requirements on that? [LR443]

WAUNETA BROWNE: There are a lot of requirements. We actually...when we look at the annual budget that we spend in our own network, it surpasses the total dollars of broadband funding availability, and so we have just, at this point, chosen not to pursue it. But that's not to say that as future funding is available that we would not pursue it at some point in the future. [LR443]

SENATOR FISCHER: So your company is already making that investment on your own



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and spending or investing more than you would even receive from a grant from the broadband. [LR443]

WAUNETA BROWNE: That is correct. [LR443]

SENATOR FISCHER: Okay. Thank you. Other questions? I see none. Always a pleasure to see you. Thank you for being here. [LR443]

WAUNETA BROWNE: Thank you very much for your time. [LR443]

SENATOR FISCHER: Is there anyone else who would like to present information to the committee? Anybody else? I see none. I thank you all for being here today. We had an excellent group, good information. And with that I will adjourn the hearing for the day. [LR443]